Appendix A

Notice of Preparation and Comment Matrix

County of El Dorado

Notice of Preparation of a Draft Environmental Impact Report

and Notice of Public Scoping Meeting for the

Village of Marble Valley Specific Plan

Date: February 20, 2013

To: Interested Parties

From: Rommel (Mel) Pabalinas, Senior Planner, County of El Dorado

Subject: Notice of Preparation of a Draft Environmental Impact Report and Notice of Public Scoping Meeting for the Village of Marble Valley Specific Plan (File No. SP12-0003)

The County of El Dorado (County) will be the lead agency under the California Environmental Quality Act (CEQA) for preparation of an Environmental Impact Report (EIR) for the Village of Marble Valley Specific Plan in El Dorado County. The purpose of this 30-day Notice of Preparation (NOP) and notice of public scoping meeting is to solicit comments from public agencies and interested persons regarding the scope and content of the environmental information and analyses, including the significant environmental impacts, reasonable alternatives, and mitigation measures that should be included in the Draft EIR (pursuant to CEQA Guidelines Section 15082). The location, project description, proposed entitlement requests, and potential environmental effects of the proposed Village of Marble Valley Specific Plan are summarized in the attached materials.

Please provide written comments to **Mr. Rommel (Mel) Pabalinas, Senior Planner**, at the address shown by 5:00 p.m. on March 22, 2013. Keep in mind that there will be another opportunity to submit detailed comments when the Draft EIR is released for public review. Please mail, email, or fax your comments to:

Rommel (Mel) Pabalinas, Senior Planner
El Dorado County Development Services Department, Planning Division
2850 Fairlane Court, Building C
Placerville, CA 95667
Email: rommel.pabalinas@edcgov.us
Fax: (530) 642-0508

The County will hold a public scoping meeting to provide additional information about the project and to receive verbal and written input on Wednesday, March 6, 2013 from 6:30 p.m. to 8:30 p.m. at Cameron Park Community Services District, Assembly Hall, 72502 Country Club Drive, Cameron Park, CA 95682. The scoping meeting format will be an open house; interested parties may arrive at any time during the 2-hour window to receive information on the project or provide input.

NOTICE OF PREPARATION OF

A DRAFT ENVIRONMENTAL IMPACT REPORT (EIR)
AND NOTICE OF PUBLIC SCOPING MEETING
FOR THE
VILLAGE OF MARBLE VALLEY SPECIFIC PLAN

Project Information

Location: The site for the Village of Marble Valley Specific Plan (VMVSP) (project) comprises approximately 2,341 acres located in the unincorporated area of the County of El Dorado (County) south of U.S. Highway 50 (US 50), and is located approximately 19 miles west of Placerville and 24 miles east of downtown Sacramento (Figure 1, Regional Location). This is where the 398-lot Marble Valley Master Plan was previously approved by the El Dorado County Board of Supervisors in 1998. The VMVSP is a proposed amendment to the approved Marble Valley Master Plan. The site is approximately 1,000 feet southeast of the US 50 and the Bass Lake Road interchange in El Dorado Hills, California, and consists of Assessor's Parcel Numbers (APNs) 087-200-74; 119-020-56 and 119-020-57; 119-030-13 through 119-030-19; and 119-330-01 (Figure 2, Project Location).

The proposed project site is surrounded by the Cambridge Oaks residential development and US 50 to the north; Marble Ridge residential development and Valley View Specific Plan area to the west; Ryan Ranch residential development to the southwest; Sun Ridge Systems to the south; and Cameron Estates, the proposed Lime Rock Valley Specific Plan, Deer Creek Wastewater Treatment Plant, and Royal Equestrian Estates to the east.

Project Description: The proposed VMVSP would consist of an approximately 2,341-acre project with up to 3,236 dwelling units, 475,000 square feet of commercial use, 87.1 acres of public facilities/recreational use, 1,281.9 acres of open space, 41.8 acres of agricultural use, and 73.8 acres of new road impact areas and future right-of-way. Planned improvements will take place on approximately 1,875 acres located mostly north of Deer Creek. The proposed project is designed in a manner that concentrates a majority of the development along a 1-mile core adjacent to the entry roadway and preserves, enhances, and highlights the historic character of the site derived from the historical use of the property for limestone mining. Table 1 shows the proposed land use designations. These designations are also shown in Figure 3, Proposed Land Use Designations.

Table 1. Proposed Land Use Summary

Land Use Designation	Area (Acres)	Percent of Total Area	Residential Units	Commercial Area (Square Feet)
Residential				
LDR - Low-Density Residential (0.9-5.0 Dwelling Units/Acre	685	29%	1,963	NA
MDR - Medium-Density Residential (5.0-12.0 Dwelling Units/Acre)	85	4%	708	NA
High-Density Residential - (12.0-24.0 Dwelling Units/Acre)	28	1%	501	NA
Subtotal	*798*	*34%*	*3,172*	*NA*
Commercial				
OP - Office Park	41	2%	NA	375,000
VC - Village Commercial	19	1%	64	100,000
Subtotal	*60*	*3%*	*64*	*475,000*
Agriculture				
AT - Agriculture Tourism	42	2%	NA	NA
Subtotal	*42*	*2%*	*NA*	*NA*
Public Facilities				
PS - Public School (K5 and/or K8)	35	1%	NA	NA
VP - Village Park[a]	47	2%	NA	NA
NP - Neighborhood Park	TBD	0.0	NA	NA
PU - Public Utilities	5	0%	NA	NA
Subtotal	*87*	*4%*	*NA*	*NA*
Open Space				
OS - Open Space	1,282	55%	NA	NA
Subtotal	*1,281.9*	*54.7*	*NA*	*NA*
Road Impact Areas and Future Right-of-Way	73	3%	NA	NA
Total	**2,342**	**100%**	**3,236**	**475,000**

Notes: NA = Not applicable; TBD = to be determined

[a] Includes Marble Lake (9.9 acres)

Source: Marble Valley Company, LLC, 2012

Proposed Entitlement Requests: The proposed project is an amendment to the previously approved Marble Valley Master Plan. The amendment would include changes to the County general plan, adoption and implementation of the VMVSP, and rezoning. In addition, the project would require the County's approval of a development agreement, financing plan, and subsequent development permits and entitlements including a Development Plan and Tentative Maps. Specifically, the entitlement requests for the proposed project are provided as follows.

- The proposed general plan amendment would expand the Community Region of El Dorado Hills to include the VMVSP area on the General Plan Land Use Map, and amend the General Plan Land Use Map designation of subject lands from Low-Density Residential (LDR) (1.0 Du/5.0 acres) to Adopted Plan-Village of Marble Valley Specific Plan (AP-VMVSP) and VMVSP land use designations Low-Density Residential (LDR) (0.9- 5.0 Du/Ac), Medium-Density Residential (MDR) (5.0 - 12.0 Du/Ac), High-Density Residential (HDR) (12.0 - 24.0 Du/Ac), Office Park (OP), Village Commercial (VC), Public Utilities (PU), Public School (PS), Village Park (VP), Agriculture Tourism (AT), Open Space (OS), and Public Open Space (POS).

- The proposed zone change would amend zone districts from Estate Residential Five Acre-Planned Development (RE-5-PD) and Open Space (OS) to VMVSP zone districts Single Family 15K-Planned Development (R15-PD), Single-Family 10K-Planned Development (R10-PD), Single-Family 6K-Planned Development (R6-PD), Single-Family 4K-Planned Development (R4-PD), Multi-Family Low-Density-Planned Development (RM1-PD), Multi-Family Medium-Density-Planned Development (RM2-PD), Multi-Family High-Density-Planned Development (RM3-PD), Office Park-Planned Development (C1-PD), Retail-Planned Development (C2-PD), Entertainment-Planned Development (C3-PD), Mixed Use-Planned Development-(C4-PD), Lodging-Planned Development (C5-PD), Vineyards-Planned Development (AT1-PD), Private Open Space-Planned Development (OS1-PD), Public Open Space-Planned Development (OS2-PD), and Preserve-Open Space Planned Development (OS3-PD).

- Implementation of the proposed project would require the County's approval to amend the approved Development Agreement DA97-0001 and the Master Plan for Marble Valley under Tentative Map TM95-1298 ,TM95-1299 and Planned Development PD96-0004.

- Specific Plan for the proposed Village of Marble Valley for the development of an approximately 2,341-acre project with up to 3,236 dwelling units; 475,000 square feet of commercial use; 87.1 acres of public facilities/recreational use; 1,281.9 acres of open space; 41.8 acres of agricultural use; and 73.8 acres of new road impact areas and future right-of-way.

Potential Environmental Effects: Based on a preliminary environmental analysis of the VMVSP, the County has determined that the full range of issues identified in the CEQA Guidelines, listed below, shall be addressed in the EIR.

- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, Minerals, and Paleontology
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology, Water Quality, and Water Resources
- Land Use Planning and Agricultural Resources
- Noise and Vibration
- Population and Housing
- Public Services and Utilities
- Recreation
- Traffic and Circulation
- Visual Resources

In addition to the above areas, the Draft EIR will also evaluate the potential cumulative and growth-inducing effects of the project, as required by CEQA. Reasonably foreseeable future projects will be considered in the Draft EIR, including, but not limited to, the proposed Lime Rock Valley Specific Plan, the proposed Central El Dorado Hills Specific Plan, and the proposed Dixon Ranch Residential Project. Applications have been submitted to the County for these projects, and they are currently undergoing CEQA review.

Comments and suggestions are requested regarding the environmental issues that will be analyzed in the EIR during the 30-day public comment period for the NOP.

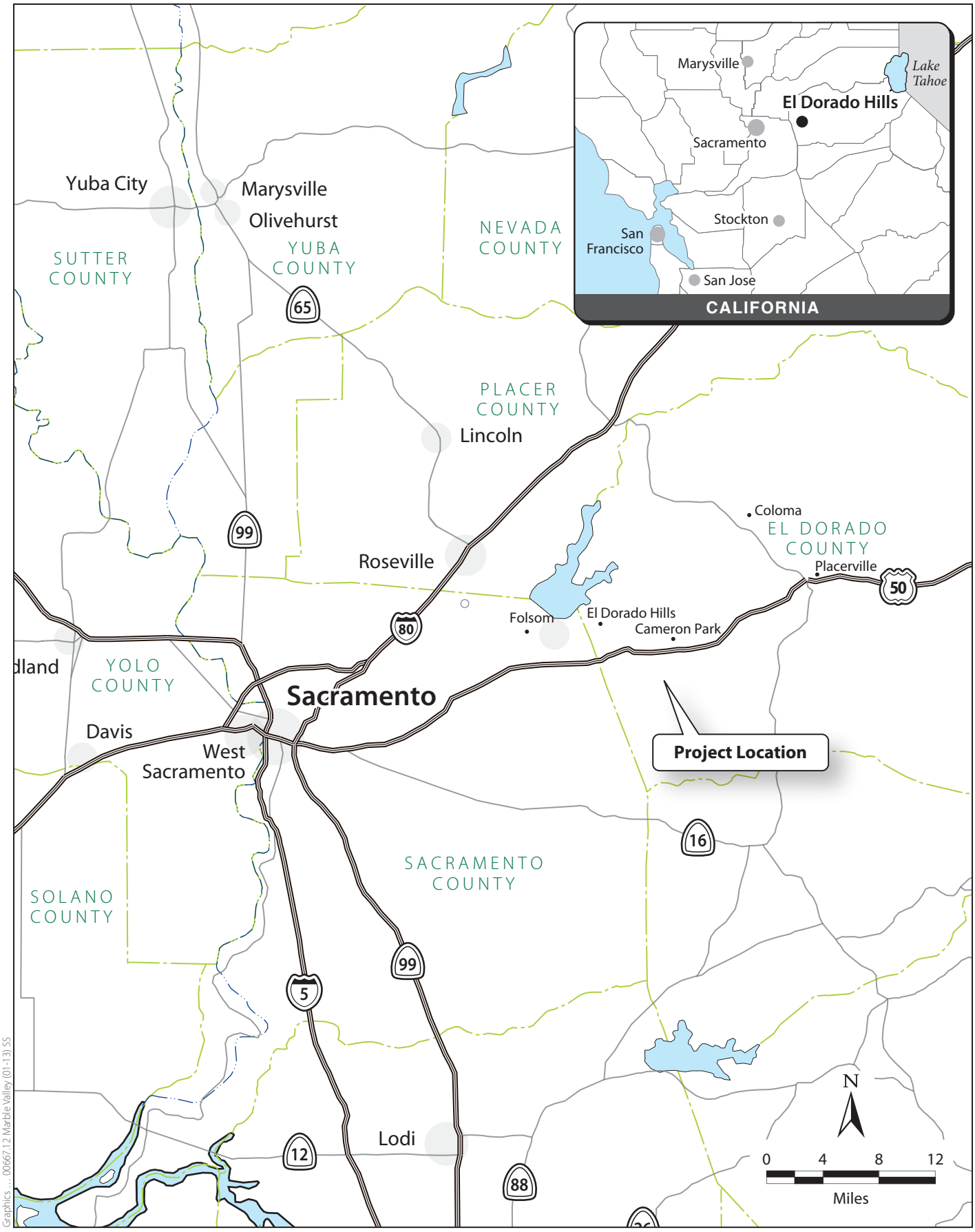
Potential Alternatives to be addressed in the EIR: In accordance with Section 15126.6 of the State CEQA Guidelines, an EIR must "describe a range of reasonable alternatives to the Project, or to the location of the Project, which would feasibly attain most the basic objectives of the Project, but would avoid or substantially lessen any of the significant effects of the Project, and evaluate the comparative merits of the alternatives." As required by CEQA, the EIR will evaluate a no project alternative (i.e., no amendment to 1998 Marble Valley Master Plan), which will assume development of the site under the currently adopted General Plan, approved Development Plan, Development Agreement, Tentative Map for the 1998 Marble Valley Master Plan, and zoning designation. Aside from the no project alternative, the County has not yet determined what additional alternatives to the project will be evaluated in the EIR. These will be identified during the environmental review process. Once selected, the alternatives will be analyzed at a qualitative level of detail in the Draft EIR for comparison against the impacts identified for the proposed project, consistent with the requirements of CEQA.

Public Scoping Meeting

The County will hold a public scoping meeting to provide additional information about the project and to receive verbal and written input on Wednesday, March 6, 2013 from 6:30 p.m. to 8:30 p.m. at Cameron Park Community Services District, Assembly Hall, 72502 Country Club Drive, Cameron Park, CA 95682. The scoping meeting format will be an open house; interested parties may arrive at any time during the 2-hour window to receive information on the project or provide input.

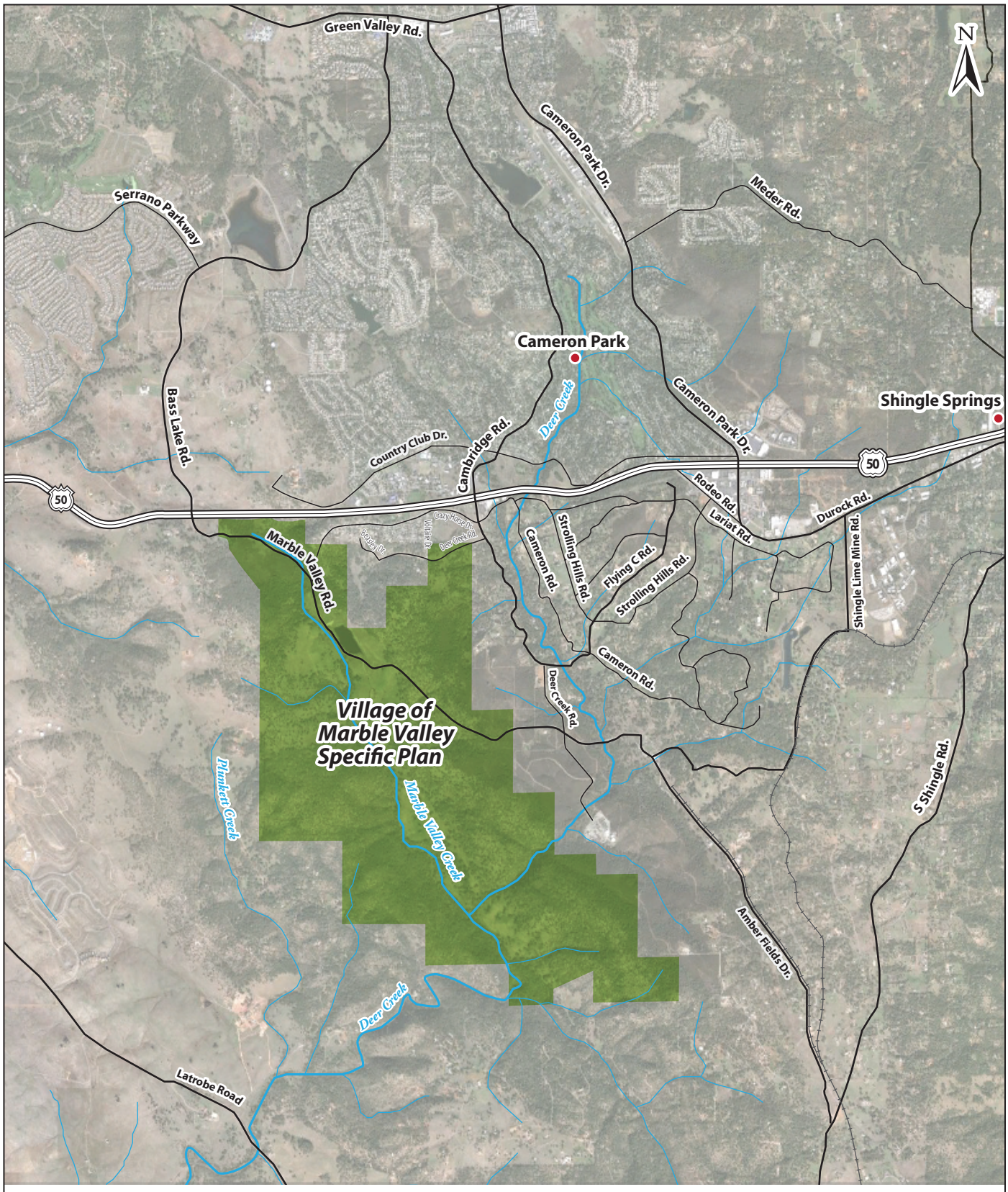
Requests for Additional Information

If you have any questions, please contact Rommel (Mel) Pabalinas at the County of El Dorado, Development Services Department, Planning Division, 2850 Fairlane Court, Building C, Placerville, CA 95667, by telephone at (530) 621-5363, or by email to rommel.pabalinas@edcgov.us.



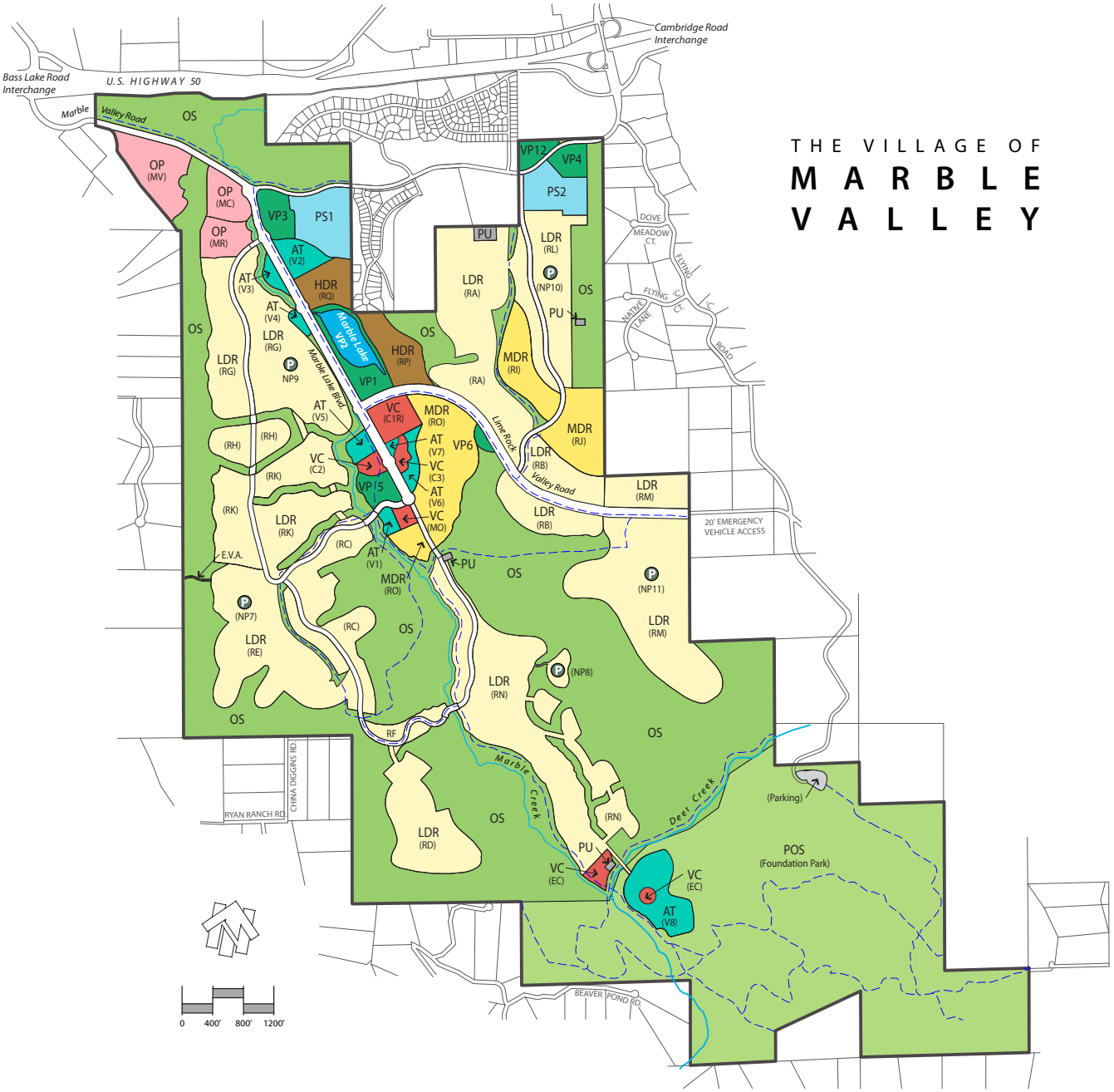
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Figure 1
Regional Location



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Figure 2
Project Location



LAND USE PLAN

Residential

- LDR — Low Density Residential
- MDR — Medium Density Residential
- HDR — High Density Residential

Commercial

- OP — Office Park
- VC — Village Commercial

Public Facilities

- PU — Public Utilities
- PS — Public School
- VP — Village Park
- P — Neighborhood Park

Agriculture/Open Space

- AT — Agriculture Tourism (Vineyards)
- OS — Open Space
- POS — Public Open Space (Foundation Park)

Circulation

- E.V.A. — Emergency Vehicle Access
- Trails

Torrence Planning
30 October 2012

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Figure 3
Proposed Land Use Designations

Party Name (Last name, First name; Agency or Organization name)	**Date Received**	**Party Type/ Letter Number/ Comment Number**	**Federal, State, Local, Organization, Form, Individual**	**Comment Topic**	**Refined Topic**	**Section**	**Mitigation (if applicable)**
Lusi, Tom	3/6/2013	IP01	Individual	WQ/Hydro	Where is EID getting water from?	EID has two broad categories of water assets that are available for the proposed project: secured water assets and planned water assets. These supplies are shown in **Section 3.12**, Public Services and Utilities, Table 3.12-3 and impacts are discussed in Impact PSU-5	
Mard, Karen	3/6/2013	IP02	Individual	Design	road naming suggestion-too many "Marbles" - it's confusing	Comment noted. Not a CEQA issue.	
Lusi, Mary	3/6/2013	IP03	Individual	Design	road naming suggestion-too many "Marbles"	Comment noted. Not a CEQA issue.	
Anderson, Harold & Christine	3/6/2013	IP04	Individual	Visual/Aesthetics	siting of water tanks and visual impacts	See **Section 3.1**, Aesthetics (Impact AES-1, AES-2, AES-4)	Mitigation Measure AES-2
Faulkner, Jeff & Joelle	3/6/2013	IP05	Individual	Noise/Visual	HDR, school, park uses will cause noies and visual impacts	See **Section 3.1**, Aesthetics (Impact AES-1, AES-2, AES-4) and Section 3.10, Noise	Mitigation Measures AES-2, NOI-1a and NOI-1b
	3/6/2013	IP05	Individual	Quality of Life	opposes zoning change, quality of life	Not a CEQA issue.	
	3/6/2013	IP05	Individual	Land use	purchased lot specfically because adjacent Marble Valley was zoned LDR	Not a CEQA issue.	
	3/6/2013	IP05	Individual	Economic	reduced value of property	Not a CEQA issue.	
Bergman, Mattias	3/21/2013	IP06	Individual	Transportation	wants to maintain easy access to freeway from Marble Mt. Community Services District	See **Section 3.14**, Traffic and Circulation (Impact TRA-1)	Mitigation Measure TRA-1
	3/21/2013	IP06	Individual	WQ/Hydro	concerned about aquifer impacts	See **Section 3.8**, Hydrology, Water Quality, and Water Resources (Impact WQ-2)	Mitigation Measure WQ-2
	3/21/2013	IP06	Individual	Noise/Visual	construction/traffic noise	See **Section 3.1**, Aesthetics (Impact AES-1) and **Section 3.10**, Noise and Vibration (Impact NOI-1, NOI-2, and NOI-4)	Mitigation Measure NOI-1
	3/21/2013	IP06	Individual	Visual/Aesthetics	light pollution	Addressed in **Section 3.1**, Aesthetics (Impact AES-5)	Mitigation Measure AES-2
	3/21/2013	IP06	Individual	Public Services	potential for increase in crime-how will it be addressed?	Not a CEQA issue	
Willson, Rick and Julie	3/20/2013	IP07	Individual	Design	Residential development should remain single-family, 1-story. Support 2008 approved plan	Comment noted	
	3/20/2013	IP07	Individual	Design/Transportation	agrees with main roadway as desgined, providing no changess made	Comment noted	
	3/20/2013	IP07	Individual	Visual/Aesthetics	street lighting should be downcast if at all	Addressed in **Section 3.1**, Aesthetics (Impact AES-5)	Mitigation Measure AES-2
	3/20/2013	IP07	Individual	Design	supports current plan by Parker, no sports field lighting	Lighting is addressed in **Section 3.1**, Aesthetics (Impact AES-5)	Mitigation Measure AES-2
	3/20/2013	IP07	Individual	Design	water tanks should be hidden from view	Addressed in **Section 3.1**, Aesthetics (Impact AES-1)	
Kinghorn, David	3/22/2013	IP08a	Individual	Design/Zoning	blatant attempt to overturn responsible zoning. Plans are too much, too big.	A discussion of the general consistency of the proposed project with the policies of the General Plan is presented in **Section 3.9**, Land Use Planning and Agricultural Resources, Table 3.9-3	
	3/22/2013	IP08a	Individual	Noise/Traffic/Crime	Impacts to noise, traffic, increase in strangers visiting and crime/vandalism	Traffic impacts addressed in **Section 3.14**, Traffic and Circulation (Impact TRA-2); See **Section 3.10**, Noise. Crime, strangers, and vandalism are not issued addressed in CEQA.	Mitigation Measure TRA-2
	3/22/2013	IP08a	Individual	General	commercial interests clashing with residents values	Not a CEQA issue.	
	3/22/2013	IP08a	Individual	Haz/Mat, Recreation	quarry pond is a danger and should be fenced-off. Toxins from Marble Creek flow into the pond - could cause algae growth	The project proposes to develop the quarry pond and will include landscape modifications- see Section 5.3.5 of the Specific Plan. Marble Valley Creek is not listed as an impaired water body, see **Section 3.8**, Hydrology, Water Quality and Water Resources.	
	3/22/2013	IP08a	Individual	Noise	Amphlitheater will cause increase in noise	Addressed in **Section 3.10**, Noise (Impact NOI-1 and NOI-3)	Mitigation Measure NOI-1b
	3/22/2013	IP08a	Individual	Public Services/Traffic/Haz Mat	proposed schools too close to pollution, noise and vibration of Hwy 50	Noise impacts are addressed in **Section 3.10**, Noise and Vibration (NOI-1, NOI2, NOI-3). **Section 3.2**, Air Quality discusses air quality and pollution. School sites were recommended by school districts.	Mitigation Measure NOI-1b
	3/22/2013	IP08a	Individual	Crime/Traffic	Foundation Park will attract criminals who will drive through the developemnt to get to park, unchecked. Increased traffic.	Speculative; Crime is not a CEQA issue. Traffic impacts addressed in **Section 3.14**, Traffic and Circulation (Impact TRA-2)	Mitigation Measure TRA-2

Party Name (Last name, First name; Agency or Organization name)	**Date Received**	**Party Type/ Letter Number/ Comment Number**	**Federal, State, Local, Organization, Form, Individual**	**Comment Topic**	**Refined Topic**	**Section**	**Mitigation (if applicable)**
	3/22/2013	IP08a	Individual	Transportation	people will want to turn fire access road into regular access road resulting in increased traffic	This is speculative. Traffic impacts are addressed in **Section 3.14**, Traffic and Circulation (Impact TRA-1)	Mitigation Measure TRA-1
	3/22/2013	IP08a	Individual	Landscaping	Grape vines in median will not work; ludicrous; will be unattractive in winter; a way to avoid proper landscaping	Comment noted. See **Section 3.1**, Aesthetics for visual impacts.	
Kinghorn, David	3/24/2013	IP08b	Individual	same as IP08, with typos corrected, per commenter	See above	See above	
Guthrie, Karen	3/25/2013	IP09	Individual	Design/General Plan	3,200 additonal residents extreme; not consistent with GP	A discussion of the general consistency of the proposed project with the policies of the General Plan is presented in **Section 3.9**, Land Use Planning and Agricultural Resources Table 3.9-3	
	3/25/2013	IP09	Individual	Transportation	increased traffic on Bass Lake Rd. interchnage not workable	Addressed in **Section 3.14**, Traffic and Circulation (Impact TRA-1 and TRA-2)	Mitigation Measure TRA-1 and TRA-2
	3/25/2013	IP09	Individual	Transportation	southern route parallel to Hwy 50 should be explored. Resulting traffic jams will cause residents to use alt routes through Cameron Park. Those residents pay for their road maintanence	Speculative regarding behavior of motorists. Traffic impacts are addressed in **Section 3.14**, Traffic and Circulation (Impact TRA-1 and TRA-2). Alternate commute routes are outside the scope of this project.	Mitigation Measure TRA-1 and TRA-2
	3/25/2013	IP09	Individual	Design	Cameron Park already burdened with low-cost housing.	Land use is discussed in Section 3.9, Land Use Planning and Agricultural Resources. There is no affordable housing requirement in El Dorado County.	
Chapman, Clark	3/21/2013	IP10	Individual	School Design/Traffic	Are 2 schools needed? And if so, should be sited further apart to help reduce traffic	School sites were selected by School Districts. Demand for schools is discussed in **Section 3.12**, Public Services and Utilities, and Traffic impacts are addressed in **Section 3.14**, Traffic and Circulation (Impact TRA-2)	Mitigation Measure TRA-2
	3/21/2013	IP10	Individual	Visual/Aesthetics	concerned about park lights and park hours	Parks are discussed in **Section 3.13**, Recreation and impacts from lighting are addressed in **Section 3.1**, Aesthetics (Impact AES-5)	Mitigation Measure AES-2
	3/21/2013	IP10	Individual	Design/Visual/Aesthtics	Commercial 3-story bldgs should be 2-story max	Addressed in **Section 3.1**, Aesthetics (Impact AES-2, AES-3, AES-4)	Mitigation Measure AES-2
	3/21/2013	IP10	Individual	Transportation	hopes planning dept. will review expanding Bass Lake interchange to ease traffic congestion.	Alternative explored? Traffic impacts addressed in Section 3.14, Traffic and Circulation (Impact TRA-2)	Mitigation Measure TRA-2
Heuerman, Jeff and Michelle	3/21/2013	IP11	Individual	Transportation	traffic congestion at interchange a big concern (esp. @ highway 50 during ski season)	Traffic impacts addressed in **Section 3.14**, Traffic and Circulation (Impact TRA-1 and TRA-2)	Mitigation Measure TRA-1 and TRA-2
	3/21/2013	IP11	Individual	Noise	Concerned about years of constuction noise	Construction noise is addressed in **Section 3.10**, Noise and Vibration (Impact (NOI-1 and NOI-4)	Mitigation Measure NOI-1a
	3/21/2013	IP11	Individual	Design	Concern about condos bringing transitory residents and lowering property values, please address specific plan for any condos and cheaper housing	Not a CEQA issue	
Strohn, Leigh	3/22/2013	IP12	Individual	Design/traffic	density will increase traffic, Bass lake/Cambridge will be overwhelmed, especially on weekends	Traffic impacts addressed in **Section 3.14**, Traffic and Circulation (Impact TRA-2)	Mitigation Measure TRA-2
	3/22/2013	IP12	Individual	Biological Resources	wildlife impacts	Impacts to wildlife and biological resources are addressed in **Section 3.3**, Biological Resources.	
	3/22/2013	IP12	Individual	Air Quality		Impacts to air quality are addressed in **Section 3.2**	
	3/22/2013	IP12	Individual	Visual/Aesthetics	light pollution	Impacts related to light and glare are addressed in **Section 3.1**, Aesthetics (Impact AES-5)	Mitigation Measure AES-2
	3/22/2013	IP12	Individual	Noise/Traffic	Two schools will increase both	Noise impacts are addressed in **Section 3.10**, Noise and Vibration (Impact NOI-1 and NOI-3) and traffic impacts are addressed in **Section 3.14**, Traffic and Circulation.	Mitigation Measure NOI-1b
Palmer, Steve	3/22/2013	IP13	Individual	Biological Resources	impacts to wildlife habitat, wildlife corridors	Impacts to wildlife and biological resources are addressed in **Section 3.3**, Biological Resources.	
	3/22/2013	IP13	Individual	Visual/Aesthetics	light pollution from multiple sources a concern	Impacts related to light and glare are addressed in **Section 3.1**, Aesthetics (Impact AES-5)	Mitigation Measure AES-2
	3/22/2013	IP13	Individual	Visual/Aesthetics	please consider visual impact to residents	Visual impacts are addressed in **Section 3.1**, Aesthetics (Impact AES-1, AES-2, AES-3, AES-4)	Mitigation Measure AES-2

Party Name (Last name, First name; Agency or Organization name)	**Date Received**	**Party Type/ Letter Number/ Comment Number**	**Federal, State, Local, Organization, Form, Individual**	**Comment Topic**	**Refined Topic**	**Section**	**Mitigation (if applicable)**
Peel, Jeff and Dana	3/22/2013	IP14	Individual	Transportation	2 small country roads used currently for access and egress will experience increased traffic and access issues will result	Traffic impacts are addressed in **Section 3.14**, Traffic and Circulation.	
	3/22/2013	IP14	Individual	Transportation	more traffic in all neighboring communities; also potential for increased crime	Increased crime is speculative and not a CEQA issue. Traffic impacts are addressed in Section 3.14, Traffic and Circulation.	
	3/22/2013	IP14	Individual	Water supply	current residents use wells with varying capacity, if any well water used (e.g. dust control) it could be problamatic for the water supply of the current residents.	Water supply is addressed in **Section 3.12**, Public Services and Utilities. No well water use is proposed.	
Price, Lindell	3/22/2013	IP15	Individual	All environmental impacts	review traffic, AQ/GHG, LU, Public Services and provisions for mail delivery, medical emergency, haz/mat safety.	This document addresses the full range of potential environmental impacts. See Chapter 3.	
	3/22/2013	IP15	Individual	Transportation	review cumulative traffic impacts	Cumulative impacts are addressed in Chapter 5; cumulatve traffic impacts are discussed in **Section 5.2.2**.	
	3/22/2013	IP15	Individual	Transportation	assess traffic, AQ/GHG, safety, alt. transportation related to longer indirect traffic routes	These issues are addressed in **Sections 3.14** (Traffic and Circulation), **3.2** (Air Quality), **3.6** (Greenhouse Gas Emissions), and **3.12** (Public Services and Utilities)	
	3/22/2013	IP15	Individual	Transportation	assess year-round, pre-dawn, after dark pedestrian/bicycle access to public transit	?? I don't know what this means	
	3/22/2013	IP15	Individual	Population/Housing	how will this affect jobs/housing balance; where will VMVSP residents work? Will VMV commercial employees be able to live in VMV?	Not a CEQA issue.	
	3/22/2013	IP15	Individual	Air Quality	consider air quality, traffic, GHG, land use consequences of work commutes	Air quality, GHG, and traffic impacts of work commutes are accounted for in the analysis of these issues provided in **Sections 3.1**, **3.6**, and **3.14**, respectively. Land use is addressed in **Section 3.9**, Land Use Planning and Agricultural Resources.	
	3/22/2013	IP15	Individual	Design	consider commerical/retail alternative that will reduce out of county travel	Alternatives are address in **Chapter 4**.	
	3/22/2013	IP15	Individual	Transportation	traffic speeds, safety of cyclists	Speeds for the model network were based on the posted speed limit.	
	3/22/2013	IP15	Individual	Economic	should assess long-term economic viability,including the effects non vehicular circulations and density of development on economic viability	Not a CEQA issue.	
	3/22/2013	IP15	Individual	Recreation/Park	Re: proposal for a park under foundation control: assess long-term reliability of "foundation" control ensuring public access and preservation.	See zoning and development standards in the Specific Plan. Not an environmental impact.	
	3/22/2013	IP15	Individual	Design	review expanding community region of Cameron park to include VMVSP instead of community region of El Dorado Hills	Not a CEQA issue.	
Price, Stanley	3/22/2013	IP16	Individual	Public Services/Utilties	water supply and sewer	Water supply and sewer availability are addressed in **Section 3.12**, Public Services and Utilities (Impact PSU-1, PSU-2, PSU-3, PSU-5, PSU-6)	
	3/22/2013	IP16	Individual	Traffic/Circulation/AQ	review pedestrian/bicycle/trails/vehicle circulation plans to determine if there is good connectivity within project as wellas from the project to schools, stores, senior center and Cameron Park	Vehicular and non-vehicular circulation is addressed in **Section 3.14**, Traffic and Circulation (Impact TRA-1)	Mitigation Measure TRA-1
	3/22/2013	IP16	Individual	Land Use/Agriculture	review housing element requirements - will this help or hinder	A discussion of the general consistency of the proposed project with the policies of the General Plan is presented in **Section 3.9**, Land Use Planning and Agricultural Resources Table 3.9-3	
	3/2/2013	IP16	Individual	Land Use/Agriculture	where will construction workers live/travel from, VMV employees live and transportation options	Not a CEQA issue	
	3/22/2013	IP16	Individual	Tranportation	study transit options for employees and residents	Public transportation for everyone is addressed in **Section 3.14**, Traffic and Circulation (Impact TRA-1 and TRA-6).	Mitigation Measure TRA-1 and TRA-6

Party Name (Last name, First name; Agency or Organization name)	**Date Received**	**Party Type/ Letter Number/ Comment Number**	**Federal, State, Local, Organization, Form, Individual**	**Comment Topic**	**Refined Topic**	**Section**	**Mitigation (if applicable)**
	3/22/2013	IP16	Individual	Economic feasibility	significant density and retail at the end of a cul-de-sac - success of comparable development? Does the plan cause "reduced or increased sales tax leakage from ED County?"	Not a CEQA issue.	
	3/22/2013	IP16	Individual	Design/Recreation/Park	suggestion for equestrian trails connecting Sacramento and El Dorado Counties and connection between LRV and CEDH	Recreational facilities are discussed in **Section 3.13**, Recreation. Proposed trails are shown in the **Section 3.14**, Traffic and Circulation, and in the VMVSP, Fibure 4.27 shows proposed equestrian trails for both VMV and LRV. It is not within the scope of this project to determine trails off-site.	
	3/22/2013	IP16	Individual	Population/Housing	where will residents go for recreational facilities? Review which Community Services District this will go under	The project area is adjacent to the El Dorado Hills CSD. Impacts related to recreational facilities are discussed in **Section 3.13**, Recreation.	
	3/22/2013	IP16	Individual	Utilities	what area code is appropriate? 916 or 530?	Not a CEQA issue	
Stanfel, Linda	3/22/2013	IP17	Individual	Haz/Mat, AQ	NOA concerns	NOA is addressed in **Section 3.2**, Air Quality (Impact AQ-4)	Mitigation Measure AQ-4a
	3/22/2013	IP17	Individual	Fire Safety/Traffic	a need for more than 2 exits, people will gridlock during fire and put others in danger. Need additonal freeway access	Traffic conditions are addressed in **Section 3.14**, Traffic and Circulation. Emergency vehicle access is discussed in **Section 3.7**, Hazards and Hazardous Materials.	
	3/22/2013	IP17	Individual	Biological Resources	habitat and wildlife corridors will be destroyed or encroach upon nearby residents	Impacts on plant and animal species and wildlife corridors are discussed in **Section 3.3**, Biological Resources.	
	3/22/2013	IP17	Individual	Design/Alternatives	should include lower density development alternatives	Analysis of alternatives is discussed in **Chapter 4**.	
	3/22/2013	IP17	Individual	Public Services, water supply	sufficient water supplies? Sufficient WWTP capacity?	The capacity of public utilities and water supply are addressed in **Section 3.12**, Public Services and Utilities (Impacts PSU-5, PSU-6)	
	3/22/2013	IP17	Individual	Visual/Aesthetics	night skies will be ruined, light pollution, offer lighting alternatives	Impacts related to light and glare are addressed in **Section 3.1**, Aesthetics (Impact AES-5)	Mitigation Measure AES-2
	3/22/2013	IP17	Individual	Visual/Aesthetics	overall visual impact on residents	Visual impacts are addressed in **Section 3.1**, Aesthetics (Impact AES-1, AES-2, AES-3, AES-4)	Mitigation Measure AES-2
Stanfel, Paul	3/22/2013	IP18a	Individual	Haz/Mat, AQ	NOA concerns	NOA is addressed in **Section 3.2** (Impact AQ-4)	Mitigation Measure AQ-4a
	3/22/2013	IP18a	Individual	Transportation/Haz	a need for more than 2 exits, people will gridlock during fire and put others in danger. Need additonal freeway access	Traffic conditions are addressed in **Section 3.14**, Traffic and Circulation. Emergency vehicle access is discussed in **Section 3.7**, Hazards and Hazardous Materials.	
	3/22/2013	IP18a	Individual	Biological Resources	habitat and wildlife corridors will be destroyed or encroach upon nearby residents	Impacts on plant and animal species and wildlife corridors are discussed in **Section 3.3**, Biological Resources.	
	3/22/2013	IP18a	Individual	Design/Alternatives	should include lower density development alternatives	Analysis of alternatives is discussed in **Chapter 4**.	
	3/22/2013	IP18a	Individual	Road access	Cameron Estates road are fragile and should not be used	Circulation is addressed in **Section 3.14**, Traffic and Circulation. Use of private roads is not anticipated.	
	3/22/2013	IP18b	Individual	duplicate letter			
	3/22/2013	IP18c	Individual	duplicate letter			
January, Betty	3/22/2013	IP19	Individual	Design/General	Comment on CEDH form, but references Marble Valley. quite supportive of the project-thinks the plan is good and makes the most of space and historic sites. Would love to live here.	Comment noted.	
Johns, James (Russ)	4/18/2013	IP20	Individual	Design	Project will require taking a portion of his property including tree, relocation of water meter.	Acquisition of right-of-way will be negotiated and is not a CEQA issue. Impacts pertaining to displacements is addressed in **Section 3.11**, Population and Housing. Utilities are addressed in **Section 3.12**, Public Services and Utilities.	
	4/18/2013	IP20	Individual		Project will also probably mean drainage culvert will need improvements, road support infill, and rock retaining wall relocation	Not a CEQA issue.	
	4/18/2013	IP20	Individual	Design/traffic	Concern about accidents - retaining wall needed	Traffic impacts are addressed in **Section 3.14**, Traffic and Circulation.	

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	4/18/2013	IP20	Individual	Visual/Aesthetics	Concern about vehicle lights flashing in house	County/Applicant??	
	4/18/2013	IP20	Individual	Zoning	Attachments detail property lines/easements	County/Applicant??	
Riordan, James F.	5/1/2013	IP21	Individual	General	Upset that Cameron Park residents were last to be notified.	CEQA provides continuing opportunities for public review and input. See **Section 1.3**, Scoping and Public Involvemnt	
	5/1/2013	IP21	Individual	Traffic/Circulation	3 entrances to Hwy 50 already overtaxed-will get far worse	Traffic issues are addressed in **Section 3.14**, Traffic and Circulation (Impact TRA-1 and TRA-2)	Mitigation Measure TRA-1 and TRA-2
	5/1/2013	IP21	Individual	General	Why will VMV be under EDHCSD and not CPCSD? Cameron Park gets all the congestion and smog but no money	The plan area is contiguous with EDHCSD. Recreation impacts are discussed in **Section 3.13**, Recreation.	
	5/1/2013	IP21	Individual	Design	VMV: higher density sure to bring in people they wish would stay in Sacramento	Speculative and subjective, not a CEQA issue.	
	5/1/2013	IP21	Individual	Design	VMV rec facilities direct competition with Cameron Park CSD.	Recreational facilities are discussed in **Section 3.13**, Recreation.	
	5/1/2013	IP22	Individual	General	Asked to be included on mailing list	Will be included on future mailing lists	
Yancey, David	5/23/2013	IP23	Individual	Traffic/Circulation	Hwy 50/Bass lake interchange will be severely impacted	Impacts to interchanges are addressed in **Section 3.14**, Traffic and Circulation (Impact TRA-1 and TRA-2)	Mitigation Measure TRA-1 and TRA-2
	5/23/2013	IP23	Individual	General Plan	Opposes with project (GP amendment)	A discussion of the general consistency of the proposed project with the policies of the General Plan is presented in **Section 3.9**, Land Use Planning and Agricultural Resources Table 3.9-3	
	5/23/2013	IP23	Individual	General	County should be devoting remaining US 50 capacity to new job projects	Comment noted. Not within the scope of this project.	
Walker,Linda	5/29/2013	IP24	Individual	General	Doesn't support more retail/housing, prefers site for the arts, ala Mondavi Center	Comment noted	
Cameron Estates Community Services District	3/22/2013	LO01	Local Organization	Design-Roads	access to CECSD from VMV must be prohibited	?	
	3/22/2013	LO01	Local Organization	Transportation	project will have detrimental effects on traffic flow	Traffic impacts are discussed in **Section 3.14**, Traffic and Circulation.	
	3/22/2013	LO01	Local Organization	Boundary question	Request a survey to define property boundary	Not a CEQA issue.	
	3/22/2013	LO01	Local Organization	Density	The project is out of character with existing neighboring communities; original 398-lot plan was better. Inconsistent with General Plan	A discussion of the general consistency of the proposed project with the policies of the General Plan is presented in **Section 3.9**, Land Use Planning and Agricultural Resources Table 3.9-3	
	3/22/2013	LO01	Local Organization	Biological Resources	wildlife corridors, preserving ponds/creeks	Impacts to wildlife and wildlife corridors are discussed in **Section 3.3**, Biological Resources	
	3/22/2013	LO01	Local Organization	School/traffic	proposed school site near Flying C Road would create additional gridlock. Is school site needed and justified?	The school sites were selected by the school district. The demand for schools is discussed in VMVSP, Section 7.3. Impacts to area schools are discussed in **Section 3.13**, Public Services and Utilities.	
	3/22/2013	LO01	Local Organization	Visual Resources	lighting, light pollution	Impacts related to light and glare are addressed in **Section 3.1**, Aesthetics (Impact AES-5)	Mitigation Measure AES-2

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	3/22/2013	LO01	Local Organization	Recreation	requests non-vehicular access to trail system	Features of the plan include a network of pedestrian trails and pathways that would connect and enhance existing and proposed trails in the area, including the El Dorado Trail. These facilties are open to the public.	
	3/22/2013	LO01	Local Organization	AQ/Haz Mat	NOA and dust	Dust and NOA during construction are addressed in **Section 3.2**, Air Quality (Impacts, AQ-2, AQ-4)	Mitigation Measures AQ-2a, AQ-2b, AQ-2c, AQ-4a
El Dorado Local Agency Formation Commission	3/27/2013	LO02	Local Organization	General-Tenatative Map	fire boundaries will change, should submit 2nd LAFCO application for approval for re-organization	Comment noted.	
	3/27/2013	LO02	Local Organization	Public Services	EIR should address provisions for fire protection	Fire and police protection are addressed in **Section 3.12**, Public Services and Utilites (Impact PSU-1)	
	3/27/2013	LO02	Local Organization	WQ/Hydro	recommends water supply study	A water supply assessment has been prepared for the VMVSP. Impacs related to water supply are addressed in **Section 3.12**, Public Services and Utilities (Impact PSU-5)	
	3/27/2013	LO02	Local Organization	General	LAFCO a responsible agency-wants to comment before DEIR prepared & circulated	Comment noted.	
Cal Fire	2/25/2013	PA01	State	Fire Safety	ingress and egress requirements, road width requirements	VMVSP will meet these requirements. See Section 4 of the Specific Plan.	
Caltrans	3/27/2013	PA02	State	Transportation	anticipates a TIS will be required to address impacts to state hwy, Caltrans provides requests for scope of study	This study was performed in accordance with the El Dorado County Department of Transportation's Traffic Impact Study Protocols and Procedures, and the scope of work developed in collaboration with Caltrans.	
	3/27/2013	PA02	State	Transportation	Needs to address cumualtive impacts	Cumulative impacts are addressed in **Chapter 5.**	
	3/27/2013	PA02	State	Transportation	Requests that County to address long-range plans for local employment and parallel facilities to Hwy 50	County? Not within the scope of this project.	
	3/27/2013	PA02	State	Transportation	requests hydrologic analysis-drainage master plan	Impacts related to hydrology are discussed in **Section 3.8**, Hydrology, Water Quality and Water Resources.	County/Applicant - Drainage Master Plan for VMV and LRV
	3/27/2013	PA02	State	Transportation	if affects to state hwy, may need traffic management plan	Comment noted	
	3/27/2013	PA02	State	Transportation	transportation permit may be required if work requires oversized vehicles or vehicles of excessive weight	Comment noted	
	3/27/2013	PA02	State	Transportation	encroachment permit required if work encroaches on State ROW	Comment noted	

Appendix B

Consistency with El Dorado County General Plan Policies

	Policy Numbers	Policy	Project Consistency
LAND USE ELEMENT			
Goal 2.1: Land Use			
Objective 2.1.1: Community Regions			
	2.1.1.1	The Communities within the County are identified as: Camino/Pollock Pines, El Dorado Hills, Cameron Park, El Dorado, Diamond Springs, Shingle Springs, and the City of Placerville and immediate surroundings.	The project site is proposed to be included in the El Dorado Hills Community Region.
	2.1.1.2	Establish Community Regions to define those areas which are appropriate for the highest intensity of self-sustaining compact urban-type development or suburban type development within the County based on the municipal spheres of influence, availability of infrastructure, public services, major transportation corridors and travel patterns, the location of major topographic patterns and features, and the ability to provide and maintain appropriate transitions at Community Region boundaries. These boundaries shall be shown on the General Plan land use map.	The project site is proposed to be included in the El Dorado Hills Community Region. Availability of infrastructure and public services is addressed in Section 3.12, and the availability of access to major transportation corridors is addressed in Section 3.14.
	2.1.1.3	Mixed use developments which combine commercial and residential uses in a single project are permissible and encouraged within Community Regions. Within Community Regions, the mixed-uses may occur vertically and/or horizontally. In mixed use projects, the maximum residential density shall be 16 dwelling units per acre within Community Regions. The residential component of a mixed-use project may include a full range of single and/or multi-family design concepts. The maximum residential density of 20 dwelling units per acre may only be achieved where adequate infrastructure, such as water, sewer and roadway are available or can be provided concurrent with development.	The proposed project includes a mix of residential, commercial, and public uses. Proposed residential densities range from 0.9 to 24 Du/acre. Average residential density proposed is just under 4 Du/acre. The proposed Specific Plan is consistent with this policy.
	2.1.1.4	Community Region boundaries shall generally be coterminous with the Sphere of Influence boundaries of incorporated cities. Community Region boundaries may extend beyond a city's sphere of influence to recognize existing and anticipated development patterns consistent with that of Community Regions. However, cities should be encouraged to expand their sphere of influence to be contiguous with Community Region boundaries.	The project site is not located near a city, however, the El Dorado Hills Community Region is an existing Community Region.
	2.1.1.6	The boundaries of existing Community Regions may be modified through the General Plan amendment process.	A general plan amendment to modify the boundaries of the El Dorado Hills Community Region is a part of the proposed project.
	2.1.1.7	Development within Community Regions, as with development elsewhere in the County, may proceed only in accordance with all applicable General Plan Policies, including those regarding infrastructure availability as set forth in the Transportation and Circulation and the Public Services and Utilities Elements. Accordingly, development in Community Regions and elsewhere will be limited in some cases until such time as adequate roadways, utilities, and other public service infrastructure become available and wildfire hazards are mitigated as required by an approved Fire Safe Plan.	The proposed project includes a Specific Plan with a plan for provision of infrastructure and public services and preparation of a Wildfire Safety Plan.
Objective 2.2.5: General Policy Section			
	2.2.5.21	Development projects shall be located and designed in a manner that avoids incompatibility with adjoining land uses that are permitted by the policies in effect at the time the development project is proposed. Development projects that are potentially incompatible with existing adjoining uses shall be designed in a manner that avoids any incompatibility or shall be located on a different site.	The proposed project has been designed with buffer areas designated as open space where adjacent to low density or open space uses, with the exception of areas where the proposed land uses are the same as adjacent land use designations—on the north and northeast edges of the project site. For these reasons, the proposed Specific Plan is consistent with this policy.
Goal 2.3: Natural Landscape Features			
Objective 2.3.2: Hillsides and Ridgelines			
	2.3.2.1	Disturbance of slopes thirty (30) percent or greater shall be discouraged to minimize the visual impacts of grading and vegetation removal.	The proposed Specific Plan restricts development on slopes greater than thirty (30) percent through designating these areas for open space, and therefore is consistent with this policy.

Policy Numbers	Policy	Project Consistency
Goal 2.4: Existing Community Identity		
Objective 2.4.1: Community Identity		
2.4.1.4	Strip commercial development shall be precluded in favor of clustered contiguous facilities. Existing strip commercial areas shall be developed with common and continuous landscaping along the street frontage, shall utilize common driveways, and accommodate parcel-to-parcel internal automobile and non-automobile circulation where possible.	The proposed Specific Plan provides for clustered commercial development. The proposed Specific Plan is consistent with this policy.
Goal 2.5: Community Identity		
Objective 2.5.1: Physical and Visual Separation		
2.5.1.1	Low intensity land uses shall be incorporated into new development projects to provide for the physical and visual separation of communities. Low intensity land uses may include any one or a combination of the following: parks and natural open space areas, special setbacks, parkways, landscaped roadway buffers, natural landscape features, and transitional development densities.	The proposed Specific Plan includes open space, parks, natural landscape features and landscaped roadway buffers. The proposed Specific Plan is consistent with this policy.
2.5.1.2	Greenbelts or other means of community separation shall be included within a specific plan and may include any of the following: preserved open space, parks, agricultural districts, wildlife habitat, rare plant preserves, riparian corridors, and designated Natural Resource areas.	The proposed project includes green belt buffers in the form of open space areas between uses and around the east, west and south edges of the project site. The proposed Specific Plan is consistent with this policy.
Objective 2.5.2: Commercial Facilities		
2.5.2.1	Neighborhood commercial centers shall be oriented to serve the needs of the surrounding area, grouped as a clustered, contiguous center where possible, and should incorporate but not be limited to the following design concepts as further defined in the Zoning Ordinance: • Maximum first floor building size should be sized to be suitable for the site; • Residential use on second story; • No outdoor sales or automotive repair facilities; • Reduced setback with landscaping and walkways; • Interior parking, or the use of parking structure; • Bicycle access with safe and convenient bicycle storage area; • On-street parking to reduce the amount of on-site parking; • Community bulletin boards/computer kiosks; • Outdoor artwork, statues, etc., in prominent places; and • Pedestrian circulation to adjacent commercial centers.	The proposed Specific Plan provides a village commercial center that is centrally located relative to residential development. The proposed Specific Plan is consistent with this policy.
Goal 2.6: Corridor Viewsheds		
Objective 2.6.1: Scenic Corridor Identification		
2.6.1.5	All development on ridgelines shall be reviewed by the County for potential impacts on visual resources. Visual impacts will be assessed and may require methods such as setbacks, screening, low-glare or directed lighting, automatic light shutoffs, and external color schemes that blend with the surroundings in order to avoid visual breaks to the skyline.	The proposed Specific Plan restricts development on ridgelines through designating these areas for open space. An evaluation consistent with this policy is addressed in Section 3.1, *Aesthetics*, where a significant and unavoidable impact on scenic vistas is identified. Additionally, design review is required by the Specific Plan.

Appendix B. Continued

	Policy Numbers	Policy	Project Consistency
	2.6.1.6	A Scenic Corridor (-SC) Combining Zone District shall be applied to all lands within an identified scenic corridor. Community participation shall be encouraged in identifying those corridors and developing the regulations.	As discussed in Section 3.1, *Aesthetics*, as shown on Figure 3.1-1, a portion of US 50 passing near the project site is considered a scenic corridor by the County for its views of Marble Valley; however, no portion of Marble Valley has been designated a scenic corridor. The Specific Plan applies an open space zone to the Highway 50 Scenic Corridor (Parcel 11 B), which implements this policy. Consistency with this policy is addressed in Section 3.1, *Aesthetics,* Impact AES-3.
Goal 2.8: Lighting			
Objective 2.8.1: Lighting Standards			
	2.8.1.1	Development shall limit excess nighttime light and glare from parking area lighting, signage, and buildings. Consideration will be given to design features, namely directional shielding for street lighting, parking lot lighting, sport field lighting, and other significant light sources, that could reduce effects from nighttime lighting. In addition, consideration will be given to the use of automatic shutoffs or motion sensors for lighting features in rural areas to further reduce excess nighttime light.	The proposed Specific Plan Design Guidelines limit excess nighttime light and glare from parking areas, signage, and buildings. Specific Plan policies 5.7, 6.20, 7.18, 9.20 and 9.21 address street lighting and lighting in public/common areas. The proposed Specific Plan is consistent with these policies.
TRANSPORTATION & CIRCULATION ELEMENT			
Roads and Highways			
Goal TC-1: To plan for and provide a unified, coordinated, and cost-efficient countywide road and highway system that ensures the safe, orderly, and efficient movement of people and goods.			
	TC-1r	The County shall accept classified roads, as defined on Figure TC-1, into the County-maintained road system when constructed to County standards.	The proposed Specific Plan includes a definition of which roads will be County maintained and which roads will be maintained by the Homeowners Association. The proposed Specific Plan is consistent with this policy.
	TC-1s	Notwithstanding Policy TC-1r, the County shall only add new local roads into the existing County-maintained road system if maintenance for these local roads will be provided for through a County Service Area Zone of Benefit or other similar means acceptable to the Board of Supervisors.	The proposed project includes a Specific Plan with a plan for provision of and funding for infrastructure and public services. The proposed Specific Plan is consistent with this policy.
Levels of Service and Concurrency			
Goal TC-X: To coordinate planning and implementation of roadway improvements with new development to maintain adequate levels of service on County roads.			

	Policy Numbers	Policy	Project Consistency
	TC-Xa	Except as otherwise provided, the following TC-Xa policies shall remain in effect indefinitely, unless amended by voters: 1. Traffic from residential development projects of five or more units or parcels of land shall not result in, or worsen, Level of Service F (gridlock, stop-and-go) traffic congestion during weekday, peak-hour periods on any highway, road, interchange or intersection in the unincorporated areas of the county. 2. The County shall not add any additional segments of U.S. Highway 50, or any other highways and roads, to the County's list of roads from the original Table TC-2 of the 2004 General Plan that are allowed to operate at Level of Service F without first getting the voters' approval. 3. intentionally blank (Resolution 125-2019, August 6, 2019) 4. intentionally blank (Resolution 159-2017, October 24, 2017) 5. The County shall not create an Infrastructure Financing District unless allowed by a 2/3rds majority vote of the people within that district. 6. intentionally blank (Resolution 159-2017, October 24, 2017) 7. Before giving approval of any kind to a residential development project of five or more units or parcels of land, the County shall make a finding that the project complies with the policies above. If this finding cannot be made, then the County shall not approve the project in order to protect the public's health and safety as provided by state law to assure that safe and adequate roads and highways are in place as such development occurs.	Consistency with these policies is addressed in Section 3.14, *Transportation and Circulation,* Impacts TRA-1, TRA-2, and mitigation measures TRA-1 and TRA-2. Specific Plan policy 4.5 requires that the development of the plan area be consistent with this policy.
	TC-Xd	Level of Service (LOS) for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in the Community Regions or LOS D in the Rural Centers and Rural Regions except as specified in Table TC-2. The volume to capacity ratio of the roadway segments listed in Table TC-2 shall not exceed the ratio specified in that table. Level of Service will be as defined in the latest edition of the Highway Capacity Manual (Transportation Research Board, National Research Council) and calculated using the methodologies contained in that manual. Analysis periods shall be based on the professional judgment of the Department of Transportation which shall consider periods including, but not limited to, Weekday Average Daily Traffic (ADT), AM Peak Hour, and PM Peak hour traffic volumes.	LOS is no longer analyzed under CEQA for determining traffic impacts.
	TC-Xe	For the purposes of this Transportation and Circulation Element, "worsen" is defined as any of the following number of project trips using a road facility at the time of issuance of a use and occupancy permit for the development project: A. A 2 percent increase in traffic during the a.m. peak hour, p.m. peak hour, or daily, or B. The addition of 100 or more daily trips, or C. The addition of 10 or more trips during the a.m. peak hour or the p.m. peak hour.	Consistency with this policy is addressed in Section 3.14, *Transportation and Circulation,* Impact TRA-2, and mitigation measure TRA-2. Specific Plan policy 4.5 requires that the development of the plan area be consistent with this policy.
	TC-Xf	At the time of approval of a tentative map for a single family residential subdivision of five or more parcels that worsens (defined as a project that triggers Policy TC-Xe [A] or [B] or [C]) traffic on the County road system, the County shall do one of the following: (1) condition the project to construct all road improvements necessary to maintain or attain Level of Service standards detailed in this Transportation and Circulation Element based on existing traffic plus traffic generated from the development plus forecasted traffic growth at 10-years from project submittal; or (2) ensure the commencement of construction of the necessary road improvements are included in the County's 10-year CIP. For all other discretionary projects that worsen (defined as a project that triggers Policy TC-Xe [A] or [B] or [C]) traffic on the County road system, the County shall do one of the following: (1) condition the project to construct all road improvements necessary to maintain or attain Level of Service standards detailed in this Transportation and Circulation Element; or (2) ensure the construction of the necessary road improvements are included in the County's 20-year CIP.	LOS is no longer analyzed under CEQA for determining traffic impacts.
	TC-Xg	Each development project shall dedicate right-of-way, design and construct or fund any improvements necessary to mitigate the effects of traffic from the project. The County shall require an analysis of impacts of traffic from the development project, including impacts from truck traffic, and require dedication of needed right-of-way and construction of road facilities as a condition of the development. This policy shall remain in effect indefinitely unless amended by voters.	Consistency with this policy is addressed in Section 3.14, *Transportation and Circulation,* Impacts TRA-1, TRA-2, and mitigation measures TRA-1 and TRA-2. Specific Plan policy 4.5 requires that the development of the plan area be consistent with this policy.
Transportation Systems Management Goal TC-3: To reduce travel demand on the County's road system and maximize the operating efficiency of transportation facilities, thereby reducing the quantity of motor vehicle emissions and the amount of investment required in new or expanded facilities.			

	Policy Numbers	Policy	Project Consistency
	TC-3c	The County shall encourage new development within Community Regions and Rural Centers to provide appropriate on-site facilities that encourage employees to use alternative transportation modes. The type of facilities may include bicycle parking, shower and locker facilities, and convenient access to transit, depending on the development size and location.	Specific Plan policies 4.1, 4.2, 4.3, 4.6, 5.16, 7.4, and 7.7 accommodate and encourage the use of alternate forms of transportation, including public transit, walking, and bicycling. Consistency with these policies is addressed in Section 3.14, *Transportation and Circulation,* Impact TRA-1. The proposed Specific Plan is consistent with this policy.
Non-motorized Transportation Goal TC-4: To provide a safe, continuous, and easily accessible non-motorized transportation system that facilitates the use of the viable alternative transportation modes.			
	TC-4h	Where hiking and equestrian trails abut public roads, they should be separated from the travel lanes whenever possible by curbs and barriers (such as fences or rails), landscape buffering, and spatial distance. Existing public corridors such as power transmission line easements, railroad rights-of-way, irrigation district easements, and roads should be put to multiple use for trails, where possible.	The proposed Specific Plan includes a comprehensive bikeway and trail system separated from roadways. If Lime Rock Valley Specific Plan is also developed, the trail system will connect with the El Dorado Trail to Bass Lake Road. The proposed Specific Plan is consistent with this policy.
	TC-4i	Within Community Regions and Rural Centers, all development shall include pedestrian/bike paths connecting to adjacent development and to schools, parks, commercial areas and other facilities where feasible. In Rural Regions, pedestrian/bike paths shall be considered as appropriate.	The proposed Specific Plan includes a comprehensive bikeway and trail system connecting the different land uses within the project site. Specific Plan policies 4.1, 4.6, 5.16, 7.1, 7.4, and 7.13 address connecting development to schools and commercial areas with bicycle and pedestrian paths. The proposed Specific Plan is consistent with this policy.
Goal TC-5: To provide safe, continuous, and accessible sidewalks and pedestrian facilities as a viable alternative transportation mode.			
	TC-5a	Sidewalks and curbs shall be required throughout residential subdivisions, including land divisions created through the parcel map process, where any residential lot or parcel size is 10,000 square feet or less.	The proposed Specific Plan residential roadway sections include sidewalks and curbs. The proposed Specific Plan is consistent with this policy.
	TC-5b	In commercial and research and development subdivisions, curbs and sidewalks shall be required on all roads. Sidewalks in industrial subdivisions may be required as appropriate.	The proposed Specific Plan commercial roadway sections include sidewalks and curbs. The proposed Specific Plan is consistent with this policy.
	TC-5c	Roads adjacent to schools or parks shall have curbs and sidewalks.	The proposed Specific Plan roadway sections adjacent to schools and parks include sidewalks and curbs. The proposed Specific Plan is consistent with this policy.
HOUSING ELEMENT			
General Housing Policies Goal HO-1: To provide for housing that meets the needs of existing and future residents in all income categories.			

	Policy Numbers	Policy	Project Consistency
	HO-1.1	When adopting or updating programs, procedures, or Specific Plans or other planning documents, the County shall ensure that the goals, policies, and implementation programs are developed with the consideration of achieving and maintaining the County's regional housing allocation.	The proposed Specific Plan includes Village Residential-High development which helps to meet County RHNA goals. The proposed Specific Plan is consistent with this policy.
	HO-1.5	The County shall direct higher density residential development to Community Regions and Rural Centers.	The proposed Specific Plan includes higher density residential development. The project site is proposed to be included in the El Dorado Hills Community Region. Consistency with this policy is addressed in Section 3.9, *Land Use Planning and Agricultural Resources,* Impact LU-2.
	HO-1.24	The County shall encourage 2nd Dwelling Units to provide housing that is affordable to very low, low and moderate income households.	Second dwelling units are allowed in the proposed Specific Plan. The proposed Specific Plan is consistent with this policy.
Goal HO-5: To increase the efficiency of energy and water use in new and existing homes.			
	HO-5.1	The County shall require all new dwelling units to meet current state requirements for energy efficiency and shall encourage the retrofitting of existing units.	The Specific Plan includes policies related to energy efficiency (Specific Plan policies 9.11, 9.12, 9.13, 9.14, 9.15, 9.16, 9.18, 9.19, 9.20, 9.21, 9.22, and 9.23). The proposed Specific Plan is consistent with this policy.
PUBLIC SERVICES & UTILITIES ELEMENT			
Goal 5.1: Provision of Public Services			
Objective 5.1.2: Concurrency			
	5.1.2.1	Prior to the approval of any discretionary development, the approving authority shall make a determination of the adequacy of the public services and utilities to be impacted by that development. Where, according to the purveyor responsible for the service or utility as provided in Table 5-1, demand is determined to exceed capacity, the approval of the development shall be conditioned to require expansion of the impacted facility or service to be available concurrent with the demand, mitigated, or a finding made that a CIP project is funded and authorized which will increase service capacity.	The impact analyses in Section 3.12, *Public Services and Utilities,* presents information supporting the type of finding required by this policy. The proposed Specific Plan is consistent with this policy.
	5.1.2.2	Provision of public services to new discretionary development shall not result in a reduction of service below minimum established standards to current users, pursuant to Table 5-1.	The impact analyses in Section 3.12, *Public Services and Utilities,* presents information supporting the type of finding required by this policy. The proposed Specific Plan is consistent with this policy.
Goal 5.2: Water Supply			
Objective 5.2.1: County-wide Water Resources Program			
	5.2.1.2	An adequate quantity and quality of water for all uses, including fire protection, shall be provided for with discretionary development.	A Water Supply Assessment was prepared for the proposed Specific Plan. The conclusion of the Water Supply Assessment was that water would be available as required. More information is provided in Section 3.12, *Public Services and Utilities,* Impact PSU-4. The proposed Specific Plan is consistent with this policy.

	Policy Numbers	Policy	Project Consistency
	5.2.1.3	All medium-density residential, high-density residential, multifamily residential, commercial, industrial and research and development projects shall be required to connect to public water systems when located within Community Regions and to either a public water system or to an approved private water systems in Rural Centers.	The proposed project is proposed to be connected to a public water system and served by the El Dorado Irrigation District. The proposed Specific Plan is consistent with this policy.
	5.2.1.4	Rezoning and subdivision approvals in Community Regions or other areas dependent on public water supply shall be subject to the availability of a permanent and reliable water supply.	A Water Supply Assessment was prepared for the proposed Specific Plan. The conclusion of the Water Supply Assessment was that water would be available as required. More information is provided in Section 3.12, *Public Services and Utilities,* Impact PSU-4. The proposed Specific Plan is consistent with this policy.
	5.2.1.6	Priority shall be given to discretionary developments that are infill or where there is an efficient expansion of the water supply delivery system.	The project site is already approved for development. The proposed Specific Plan is consistent with this policy.
	5.2.1.9	In an area served by a public water purveyor or an approved private water system, the applicant for a tentative map or for a building permit on a parcel that has not previously complied with this requirement must provide a Water Supply Assessment that contains the information that would be required if a water supply assessment were prepared pursuant to Water Code section 10910. In order to approve the tentative map or building permit for which the assessment was prepared the County must (a) find that by the time the first grading or building permit is issued in connection with the approval, the water supply from existing water supply facilities will be adequate to meet the highest projected demand associated with the approval on the lands in question; and (b) require that before the first grading permit or building permit is issued in connection with the approval, the applicant will have received a sufficient water meters or a comparable supply guarantee to provide adequate water supply to meet the projected demand associated with the entire approval. A water supply is adequate if the total entitled water supplies available during normal, single, dry, and multiple dry years within a 20-year projection will meet the highest projected demand associated with the approval, in addition to existing and 20-year projected future uses within the area served by the water supplier, including but not limited to, fire protection, agricultural, and industrial uses, 95% of the time, with cutbacks calculated not to exceed 20% in the remaining 5% of the time.	A Water Supply Assessment was prepared for the proposed Specific Plan. The conclusion of the Water Supply Assessment was that water would be available as required. More information is provided in Section 3.12, *Public Services and Utilities,* Impact PSU-4. The proposed Specific Plan is consistent with this policy.
	5.2.1.11	The County shall direct new development to areas where public water service already exists. In Community Regions, all new development shall connect to a public water system. In Rural Centers, all new development shall connect either to a public water system or to an approved private water system.	The proposed project is proposed to be connected to a public water system. The proposed Specific Plan is consistent with this policy.
	5.2.1.12	The County shall work with the El Dorado Irrigation District (EID) to support the continued and expanded use of recycled water, including wet-season use and storage, in new subdivisions served by the Deer Creek and El Dorado Hills Wastewater Treatment Plants. To avoid the construction impacts of installing recycled water facilities, the County shall encourage the construction of distribution lines at the same time as other utilities are installed. Facilities to consider are recycled water lines for residential landscaping, parks, schools, and other irrigation needs, and if feasible, wet-irrigation-season storage facilities.	The project may use recycled water. Consistency with this policy is addressed in Section 3.12, *Public Services and Utilities,* Impact PSU-4. The proposed Specific Plan is consistent with this policy.
Goal 5.3: Wastewater Collection and Treatment			
Objective 5.3.1: Wastewater Capacity			
	5.3.1.1	High-density and multifamily residential, commercial, and industrial projects may be required to connect to public wastewater collection facilities if reasonably available as a condition of approval. In the Rural Centers of Camino/Cedar Grove/Pollock Pines, the long term development of public sewer service shall be encouraged.	The project is proposed to be served by a public wastewater system. The proposed Specific Plan is consistent with this policy.
	5.3.1.7	In Community Regions, all new development shall connect to public wastewater treatment facilities. In Community Regions where public wastewater collection facilities do not exist project applicants must demonstrate that the proposed wastewater disposal system can accommodate the highest possible demand of the project.	The project as proposed includes an extension of the El Dorado Hills Community Region and the plan area would be served by a public wastewater system. The proposed Specific Plan is consistent with this policy.

	Policy Numbers	Policy	Project Consistency
Goal 5.4: Storm Drainage			
Objective 5.4.1: Drainage and Flood Management Program			
	5.4.1.1	Require storm drainage systems for discretionary development that protect public health and safety, preserve natural resources, prevent erosion of adjacent and downstream lands, prevent the increase in potential for flood hazard or damage on either adjacent, upstream or downstream properties, minimize impacts to existing facilities, meet the National Pollution Discharge Elimination System (NPDES) requirements, and preserve natural resources such as wetlands and riparian areas.	The Specific Plan includes policies related to water quality and storm drainage systems (Specific Plan policies 6.3, 6.4, 6.6, 8.5, 8.6, 8.7, 8.8, and 9.48). The proposed Specific Plan is consistent with this policy.
	5.4.1.2	Discretionary development shall protect natural drainage patterns, minimize erosion, and ensure existing facilities are not adversely impacted while retaining the aesthetic qualities of the drainage way.	The Specific Plan includes policies related to drainage and erosion (Specific Plan policies 6.3, 6.6, 9.48). The proposed Specific Plan is consistent with this policy.
Goal 5.5 Solid Waste			
Objective 5.5.2: Recycling, Transformation, and Disposal Facilities			
	5.5.2.1	Concurrent with the approval of new development, evidence will be required that capacity exists within the solid waste system for the processing, recycling, transformation, and disposal of solid waste.	As described in detail in Section 3.12, *Public Services and Utilities*, Impact PSU-6, capacity exists to serve the proposed project. The proposed Specific Plan is consistent with this policy.
Goal 5.6: Gas, Electric, and Other Utility Services			
Objective 5.6.1: Provide Utility Services			
	5.6.1.1	Promote and coordinate efforts with utilities for the undergrounding of existing and new utility distribution lines in accordance with current rules and regulations of the California Public Utility Commission and existing overhead power lines within scenic areas and existing Community Regions and Rural Centers.	The proposed Specific Plan requires that all utility distribution lines be located underground and therefore, is consistent with this policy.
	5.6.1.2	Reserve adequate rights-of-way to facilitate expansion of services in a timely manner.	Irrevocable offers of dedication of right-of-way will be offered to the County after the proposed Specific Plan is approved. The Specific Plan is consistent with this policy.
Objective 5.6.2: Encourage Energy-Efficient Development			
	5.6.2.1	Require energy conserving landscaping plans for all projects requiring design review or other discretionary approval.	To save energy and water, the proposed Specific Plan requires the use of drought tolerant landscaping (Specific Plan policy 9.44). The Specific Plan is consistent with this policy.
	5.6.2.2	All new subdivisions should include design components that take advantage of passive or natural summer cooling and/or winter solar access, or both, when possible.	The proposed Specific Plan encourages passive natural summer cooling and winter solar access, or both, when feasible (Specific Plan policies 9.12, 9.13, 9.14, 9.18, and 9.22). The Specific Plan is consistent with this policy.
Goal 5.7: Emergency Services			
Objective 5.7.1: Fire Protection (Community Regions)			
	5.7.1.1	Prior to approval of new development, the applicant will be required to demonstrate that adequate emergency water supply, storage, conveyance facilities, and access for fire protection either are or will be provided concurrent with development.	The Specific Plan addresses this requirement in policy 7.25 and is consistent with this policy.

	Policy Numbers	Policy	Project Consistency
Objective 5.7.3: Law Enforcement			
	5.7.3.1	Prior to approval of new development, the Sheriff's Department shall be requested to review all applications to determine the ability of the department to provide protection services. The ability to provide protection to existing development shall not be reduced below acceptable levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.	Section 3.12, *Public Services and Utilities* presents information on the Sheriff's department review of the ability to provide protection services. Impact PSU-1 notes that the project will not reduce protection levels. The proposed Specific Plan is consistent with this policy.
Objective 5.7.4: Medical Emergency Services			
	5.7.4.1	Prior to approval of new development, the applicant shall be required to demonstrate that adequate medical emergency services are available and that adequate emergency vehicle access will be provided concurrent with development.	Section 3.12, *Public Services and Utilities,* Impact PSU-1, presents information regarding the adequacy of emergency services. Specific Plan policies 4.2, 4.3, 4.4 and 4.5 address emergency vehicle access. The proposed Specific Plan is consistent with this policy.
	5.7.4.2	Prior to approval of new development, the Emergency Medical Services Agency shall be requested to review all applications to determine the ability of the department to provide protection services. The ability to provide protection to existing development shall not be reduced below acceptable levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.	Section 3.12, *Public Services and Utilities,* Impact PSU-1, presents information regarding the adequacy of emergency services. Specific Plan policy 7.25 requires that the fire department review maps prior to County approval. The proposed Specific Plan is consistent with this policy.
Goal 5.8: School Services			
Objective 5.8.1: School Capacity			
	5.8.1.1	School districts affected by a proposed development shall be relied on to evaluate the development's adverse impacts on school facilities or the demand therefor. No development that will result in such impacts shall be approved unless: 1. To the extent allowed by State law, the applicant and the appropriate school district(s) have entered into a written agreement regarding the mitigation of impacts to school facilities; or 2. The impacts to school facilities resulting from the development are mitigated, through conditions of approval, to the greatest extent allowed by State law.	Impacts to school facilities are discussed in Section 3.12, *Public Services and Utilities*, Impact PSU-1. The proposed Specific Plan is consistent with this policy.
	5.8.1.3	Whenever feasible, develop joint (shared) school facilities, recreational facilities, and educational and service programs between school districts and other public agencies.	The proposed Specific Plan provides two school sites with adjacent public park sites, consistent with this policy.
Objective 5.8.2: Land for School Facilities			
	5.8.2.1	Where feasible, elementary schools shall be centrally located within the communities they serve.	The proposed Specific Plan designates two school sites in the Plan Area consistent with this policy.
Objective 5.8.3: Child and Other Care and Day Care Programs			
	5.8.3.1	Child day care facilities shall be allowed by right in commercial/office projects, in multiple family housing developments, in mixed use developments in specific plans, in employment centers, and near transit facilities.	The proposed Specific Plan allows child day care facilities by right. The proposed Specific Plan is consistent with this policy.
PUBLIC HEALTH, SAFETY & NOISE ELEMENT			
Goal 6.2: Fire Hazards			

	Policy Numbers	Policy	Project Consistency
Objective 6.2.2: Limitations to Development			
	6.2.2.1	Fire Hazard Severity Zone Maps shall be consulted in the review of all projects so that standards and mitigation measures appropriate to each hazard classification can be applied. Land use densities and intensities shall be determined by mitigation measures in areas designated as high or very high fire hazard.	The project site is located within designated high and very high fire hazard severity zones. Consistency with this policy is addressed in Section 3.7, *Hazards and Hazardous Materials,* Impact HAZ-8. Specific Plan policies 7.25 and 6.47 address fire safety.
	6.2.2.2	The County shall preclude development in areas of high and very high wildland fire hazard or in areas identified as wildland-urban interface (WUI) communities within the vicinity of Federal lands that are a high risk for wildfire, as listed in the Federal Register Executive Order 13728 of May 18, 2016, unless such development can be adequately protected from wildland fire hazard, as demonstrated in a WUI Fire Safe Plan prepared by a qualified professional as approved by the El Dorado County Fire Prevention Officers Association. The WUI Fire Safe Plan shall be approved by the local Fire Protection District having jurisdiction and/or California Department of Forestry and Fire Protection. (Resolution 124-2019, August 6, 2019)	The project site is located within designated high and very high fire hazard severity zones. Consistency with this policy is addressed in Section 3.7, *Hazards and Hazardous Materials*. VMVSP Policy 6.47 requires that prior to submittal of the first small lot tentative subdivision map, CAL FIRE will review and approve a Wildfire Safety Plan.
Objective 6.2.3: Adequate Fire Protection			
	6.2.3.1	As a requirement for approving new development, the County must find, based on information provided by the applicant and the responsible fire protection district that, concurrent with development, adequate emergency water flow, fire access, and firefighting personnel and equipment will be available in accordance with applicable State and local fire district standards.	The proposed Specific Plan is consistent with this policy; a discussion is provided in Section 3.7, *Hazards and Hazardous Materials*, impact HAZ-8 and in Section 3.12, *Public Services and Utilities,* Impact PSU-1.
	6.2.3.2	As a requirement of new development, the applicant must demonstrate that adequate access exists, or can be provided to ensure that emergency vehicles can access the site and private vehicles can evacuate the area.	The proposed Specific Plan is consistent with this policy; a discussion is provided in Section 3.7, *Hazards and Hazardous Materials,* impact HAZ-7. The proposed Specific Plan circulation system provides adequate access for emergency vehicles.
	6.2.3.4	All new development and public works projects shall be consistent with applicable State Wildland Fire Standards and other relevant State and federal fire requirements.	The proposed Specific Plan is consistent with this policy; a discussion is provided in Section 3.7, *Hazards and Hazardous Materials*, Impact HAZ-8.
Objective 6.2.4: Area-wide Fuel Management Program			
	6.2.4.1	Discretionary development within high and very high fire hazard areas shall be conditioned to designate fuel break zones that comply with fire safe requirements to benefit the new and, where possible, existing development.	The proposed Specific Plan is consistent with this policy; a discussion is provided in Section 3.7, *Hazards and Hazardous Materials*, Impact HAZ-8.
	6.2.4.2	The County shall cooperate with the California Department of Forestry and Fire Protection and local fire protection districts to identify opportunities for fuel breaks in zones of high and very high fire hazard either prior to or as a component of project review.	The proposed Specific Plan is consistent with this policy; a discussion is provided in Section 3.7, *Hazards and Hazardous Materials*, Impact HAZ-8.
Goal 6.3: Geologic and Seismic Hazards			
Objective 6.3.1: Building and Site Standards			

	Policy Numbers	Policy	Project Consistency
	6.3.1.1	The County shall require that all discretionary projects and all projects requiring a grading permit, or a building permit that would result in earth disturbance, that are located in areas likely to contain naturally occurring asbestos (based on mapping developed by the California Department of Conservation [DOC]) have a California-registered geologist knowledgeable about asbestos-containing formations inspect the project area for the presence of asbestos using appropriate test methods. The County shall amend the Erosion and Sediment Control Ordinance to include a section that addresses the reduction of thresholds to an appropriate level for grading permits in areas likely to contain naturally occurring asbestos (based on mapping developed by the DOC). The Department of Transportation and the County Air Quality Management District shall consider the requirement of posting a warning sign at the work site in areas likely to contain naturally occurring asbestos based on the mapping developed by the DOC.	The proposed Specific Plan area has been inspected by a California registered geologist to determine if asbestos containing soils are present on the site. Specific Plan policy 6.1 addresses NOA. Consistency with this policy is addressed in Section 3.2, *Air Quality*, Impact AQ-3b and mitigation measure AQ-3a and Section 3.7, *Hazards and Hazardous Materials,* Impact HAZ-2. The proposed Specific Plan is consistent with this policy.
Objective 6.3.2: County-wide Seismic Hazards			
	6.3.2.5	Applications for development of habitable structures shall be reviewed for potential hazards associated with steep or unstable slopes, areas susceptible to high erosion, and avalanche risk. Geotechnical studies shall be required when development may be subject to geological hazards. If hazards are identified, applicants shall be required to mitigate or avoid identified hazards as a condition of approval. If no mitigation is feasible, the project will not be approved.	The proposed Specific Plan is consistent with this policy; a discussion is provided in Section 3.5, *Geology, Soils, Minerals, and Paleontological Resources*, Impacts GEO-1, GEO-2, GEO-3, GEO-4, and GEO-5.
Goal 6.4: Flood Hazards			
Objective 6.4.1: Development Regulations			
	6.4.1.3	No new critical or high occupancy structures (e.g., schools, hospitals) shall be located in the 100-year floodplain of any river, stream, or other body of water.	The proposed project does not include any 100-year flood hazard areas, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, as discussed in Section 3.8, Hydrology, *Water Quality, and Water Resources,* Impact WQ-3ii, WQ-3iv, WQ-4, and WQ-6.
	6.4.1.4	Creation of new parcels which lie entirely within the 100-year floodplain as identified on the most current version of the flood insurance rate maps provided by FEMA or dam failure inundation areas as delineated in dam failure emergency response plans maintained by the County shall be prohibited.	The proposed Specific Plan is consistent with this policy; a discussion of floodplains and dam failure can be found in Section 3.8, Hydrology, *Water Quality, and Water Resources,* Impacts WQ-3iv and WQ-6.
	6.4.1.5	New parcels which are partially within the 100-year floodplain or dam failure inundation areas as delineated in dam failure emergency response plans maintained by the County must have sufficient land available outside the FEMA or County designated 100-year floodplain or the dam inundation areas for construction of dwelling units, accessory structures, and septic systems. Discretionary applications shall be required to determine the location of the designated 100-year floodplain and identified dam failure inundation areas on the subject property.	The proposed Specific Plan is consistent with this policy; a discussion is provided in Section 3.8, Hydrology, *Water Quality, and Water Resources,* Impacts WQ-3iv and WQ-6.
Objective 6.4.2: Dam Failure Inundation			
	6.4.2.1	Apply a zoning overlay for areas located within dam failure inundation zones as identified by the State Department of Water Resources Division of Safety of Dams.	A small reach of Deer Creek where it enters the project site from the northeast is within this potential inundation area. The area that could be inundated is proposed to remain as undeveloped open space. Reference Section 3.8, Hydrology, *Water Quality, and Water Resources,* Impact WQ-3iv.

	Policy Numbers	Policy	Project Consistency
	6.4.2.2	No new critical or high occupancy structures (e.g., schools, hospitals) should be located within the inundation area resulting from failure of dams identified by the State Department of Water Resources Division of Safety of Dams.	A small reach of Deer Creek where it enters the project site from the northeast is within this potential inundation area. The area that could be inundated is proposed to remain as undeveloped open space. Reference Section 3.8, Hydrology, *Water Quality, and Water Resources,* Impact WQ-3iv.
Goal 6.5: Acceptable Noise Levels			
Objective 6.5.1: Protection of Noise-Sensitive Development			
	6.5.1.1	Where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding the levels specified in Table 6-1 or the performance standards of Table 6-2, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.	Noise mitigation design is addressed in Section 3.10, *Noise*, Impacts NOI-1a and NOI-1b. Implementation of mitigation measures NOI-1a and NOI-1b will ensure that the proposed Specific Plan is consistent with this policy.
	6.5.1.2	Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 6-2 at existing or planned noise-sensitive uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.	Non-residential land use noise levels are addressed in Section 3.10, *Noise*, Impacts NOI-1a and NOI-1b. Implementation of mitigation measures NOI-1a and NOI-1b will ensure that the proposed Specific Plan is consistent with this policy.
	6.5.1.3	Where noise mitigation measures are required to achieve the standards of Tables 6-1 and 6-2, the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project and the noise barriers are not incompatible with the surroundings.	Noise mitigation measures are addressed in Section 3.10, *Noise*, Impacts NOI-1a and NOI-1b. Implementation of mitigation measures NOI-1a and NOI-1b will ensure that the proposed Specific Plan is consistent with this policy.
	6.5.1.5	Setbacks shall be the preferred method of noise abatement for residential projects located along U.S. Highway 50. Noise walls shall be discouraged within the foreground viewshed of U.S. Highway 50 and shall be discouraged in favor of less intrusive noise mitigation (e.g., landscaped berms, setbacks) along other high volume roadways.	The proposed Specific Plan proposes no residential uses along US 50.
	6.5.1.6	New noise-sensitive uses shall not be allowed where the noise level, due to non-transportation noise sources, will exceed the noise level standards of Table 6-2 unless effective noise mitigation measures have been incorporated into the development design to achieve those standards.	Noise mitigation measures are addressed in Section 3.10, *Noise*, Impact NOI-1c. Implementation of mitigation measures NOI-1a, NOI-1b and NOI-1c will ensure that the proposed Specific Plan is consistent with this policy.
	6.5.1.7	Noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table 6-2 for noise-sensitive uses.	Non-transportation noise source mitigation is addressed in Section 3.10, *Noise*, Impact NOI-1c. Implementation of mitigation measures NOI-1a, NOI-1b and NOI-1c will ensure that the proposed Specific Plan is consistent with this policy.
	6.5.1.8	New development of noise sensitive land uses will not be permitted in areas exposed to existing or projected levels of noise from transportation noise sources which exceed the levels specified in Table 6-1 unless the project design includes effective mitigation measures to reduce exterior noise and noise levels in interior spaces to the levels specified in Table 6-1.	Project design noise mitigation measures are addressed in Section 3.10, *Noise,* Impact NOI-1b. Implementation of mitigation measure NOI-1b will ensure that the proposed Specific Plan is consistent with this policy.

	Policy Numbers	Policy	Project Consistency
	6.5.1.9	Noise created by new transportation noise sources, excluding airport expansion but including roadway improvement projects, shall be mitigated so as not to exceed the levels specified in Table 6-1 at existing noise-sensitive land uses.	New transportation noise sources are addressed in Section 3.10, *Noise,* Impact NOI-1b. Implementation of mitigation measure NOI-1b will ensure that the proposed Specific Plan is consistent with this policy.
	6.5.1.12	When determining the significance of impacts and appropriate mitigation for new development projects, the following criteria shall be taken into consideration. A. Where existing or projected future traffic noise levels are less than 60 dBA Ldn at the outdoor activity areas of residential uses, an increase of more than 5 dBA Ldn caused by a new transportation noise source will be considered significant; B. Where existing or projected future traffic noise levels range between 60 and 65 dBA Ldn at the outdoor activity areas of residential uses, an increase of more than 3 dBA Ldn caused by a new transportation noise source will be considered significant; and C. Where existing or projected future traffic noise levels are greater than 65 dBA Ldn at the outdoor activity areas of residential uses, an increase of more than 1.5 dBA Ldn caused by a new transportation noise will be considered significant.	Mitigation determination is addressed in Section 3.10, *Noise,* Impact NOI-1b. Implementation of mitigation measure NOI-1b will ensure that the proposed Specific Plan is consistent with this policy.
	6.5.1.13	When determining the significance of impacts and appropriate mitigation to reduce those impacts for new development projects, including ministerial development, the following criteria shall be taken into consideration: A. In areas in which ambient noise levels are in accordance with the standards in Table 6-2, increases in ambient noise levels caused by new non-transportation noise sources that exceed 5 dBA shall be considered significant; and B. In areas in which ambient noise levels are not in accordance with the standards in Table 6-2, increases in ambient noise levels caused by new non-transportation noise sources that exceed 3 dBA shall be considered significant.	Mitigation determination is addressed in Section 3.10, *Noise*, Impact NOI-1c. Implementation of mitigation measures NOI-1a, NOI-1b and NOI-1c will ensure that the proposed Specific Plan is consistent with this policy.
Goal 6.6: Management of Hazardous Materials			
Objective 6.6.1: Regulation of Hazardous Materials			
	6.6.1.2	Prior to the approval of any subdivision of land or issuing of a permit involving ground disturbance, a site investigation, performed by a Registered Environmental Assessor or other person experienced in identifying potential hazardous wastes, shall be submitted to the County for any subdivision or parcel that is located on a known or suspected contaminated site included in a list on file with the Environmental Management Department as provided by the State of California and federal agencies. If contamination is found to exist by the site investigations, it shall be corrected and remediated in compliance with applicable laws, regulations, and standards prior to the issuance of a new land use entitlement or building permit.	Site investigations of hazardous wastes is addressed in Section 3.7, *Hazards and Hazardous Materials*, Impact HAZ-2. Implementation of mitigation measure HAZ-2a will ensure that the proposed Specific Plan is consistent with this policy.
Goal 6.7: Air Quality Maintenance			
Objective 6.7.4: Project Design and Mixed Uses			
	6.7.4.1	Reduce automobile dependency by permitting mixed land use patterns which locate services such as banks, child care facilities, schools, shopping centers, and restaurants in close proximity to employment centers and residential neighborhoods.	The proposed Specific Plan is consistent with this policy; Specific Plan objective 4.4 addresses a mixture of land uses to facilitate bicycle and pedestrian travel.
	6.7.4.2	Promote the development of new residential uses within walking or bicycling distance to the County's larger employment centers.	Bike paths are proposed in the Specific Plan to be provided. More discussion of this issue is provided in Section 3.14, *Transportation and Circulation*.

	Policy Numbers	Policy	Project Consistency
	6.7.4.4	All discretionary development applications shall be reviewed to determine the need for pedestrian/bike paths connecting to adjacent development and to common service facilities (e.g., clustered mail boxes, bus stops, etc.).	The proposed Specific Plan is consistent with this policy; more discussion of this issue is provided in Section 3.14, *Transportation and Circulation*, Impact TRA-1. Specific Plan policies 4.1, 4.6, 4.7, 4.8, 6.42, 7.4, 7.7 address use of pedestrian and bicycle paths and trails to connect common services and facilities.
	6.7.4.6	The County shall regulate wood-burning fireplaces and stoves in all new development. Environmental Protection Agency (EPA)-approved stoves and fireplaces burning natural gas or propane are allowed. The County shall discourage the use of non-certified wood heaters and fireplaces during periods of unhealthy air quality.	The proposed Specific Plan is consistent with this policy; Specific Plan policies 9.50 and 9.51 regulate installation of wood-burning fireplaces.
Objective 6.7.6: Air Pollution-Sensitive Land Uses			
	6.7.6.1	Ensure that new facilities in which sensitive receptors are located (e.g., schools, child care centers, playgrounds, retirement homes, and hospitals) are sited away from significant sources of air pollution.	The proposed Specific Plan is consistent with this policy; a discussion is provided in Section 3.2, *Air Quality*, Impacts AQ-3a, AQ-3b, and AQ-3c, which concluded that impacts to sensitive receptors would be less than significant or less than significant after implementation of mitigation measures AQ-2b and AQ-3a.
	6.7.6.2	New facilities in which sensitive receptors are located (e.g. residential subdivisions, schools, childcare centers, playgrounds, retirement homes, and hospitals) shall be sited away from significant sources of air pollution.	A discussion is provided in Section 3.2, *Air Quality*, Impacts AQ-3a, and AQ-3c, which concluded that impacts to sensitive receptors would be significant and unavoidable even with implementation of mitigation; and Impact AQ-3b and AQ-5 would be less than significant after implementation of mitigation measures AQ-2a, AQ-2c and AQ-3a.
Objective 6.7.7: Construction Related, Short-Term Emissions			
	6.7.7.1	The County shall consider air quality when planning the land uses and transportation systems to accommodate expected growth, and shall use the recommendations in the most recent version of the El Dorado County Air Quality Management (AQMD) *Guide to Air Quality Assessment: Determining Significance of Air Quality Impacts Under the California Environmental Quality Act*, to analyze potential air quality impacts (e.g., short-term construction, long-term operations, toxic and odor-related emissions) and to require feasible mitigation requirements for such impacts. The County shall also consider any new information or technology that becomes available prior to periodic updates of the Guide. The County shall encourage actions (e.g., use of light-colored roofs and retention of trees) to help mitigate heat island effects on air quality.	The proposed Specific Plan is consistent with this policy. An evaluation of air emissions from the project is provided in Section 3.2, *Air Quality*. With implementation of Mitigation Measures AQ-2a, AQ-2b, and AQ-2c, the project would be consistent with EDCAQMD rules and regulations. The Specific Plan contains a number of policies related to reducing heat island effects, including use of cool pavement and retention of trees.
CONSERVATION & OPEN SPACE ELEMENT			
Goal 7.1: Soil Conservation			
Objective 7.1.1: Soils			
	7.1.1.1	Conserve and maintain important agricultural soils for existing and potential agricultural and forest uses by limiting non-agricultural/non-forestry development on those soils.	The proposed Specific Plan is consistent with this policy; as discussed in Section 3.9, *Land Use Planning and Agricultural* Resources, Impacts LU-4 and LU-5, the Specific Plan contains no important agricultural soils.
Objective 7.1.2: Erosion/Sedimentation			

	Policy Numbers	Policy	Project Consistency
	7.1.2.1	Development or disturbance of slopes over 30% shall be restricted. Standards for implementation of this policy, including but not limited to exceptions for access, reasonable use of the parcel, and agricultural uses shall be incorporated into the Zoning Ordinance.	The proposed Specific Plan is consistent with this policy; as discussed in Section 3.5, *Geology, Soils, Minerals, and Paleontological Resources*, the Specific Plan prohibits development on slopes of 30% or greater.
	7.1.2.2	Discretionary and ministerial projects that require earthwork and grading, including cut and fill for roads, shall be required to minimize erosion and sedimentation, conform to natural contours, maintain natural drainage patterns, minimize impervious surfaces, and maximize the retention of natural vegetation. Specific standards for minimizing erosion and sedimentation shall be incorporated into the Zoning Ordinance.	The proposed Specific Plan is consistent with this policy; Specific Plan objective 8.5 describes storm water management to prevent erosion and discussions of soil erosion and creation of a Stormwater Pollution Prevention Plan are provided in Section 3.5, *Geology, Soils, Minerals, and Paleontological Resources*, Impact GEO-2.
Goal 7.3: Water Quality and Quantity			
Objective 7.3.1: Water Resource Protection			
	7.3.1.1	Encourage the use of Best Management Practices, as identified by the Soil Conservation Service, in watershed lands as a means to prevent erosion, siltation, and flooding.	The Specific Plan is consistent with this policy; Specific Plan policies 6.3 through 6.7 address means to prevent erosion and siltation and policies 6.13 through 6.17, and6.24 and 6.32 address surface water elevation. This is further discussed in Section 3.8, *Hydrology and Water Quality*.
	7.3.1.2	Establish water conservation programs that include both drought tolerant landscaping and efficient building design requirements as well as incentives for the conservation and wise use of water.	The Specific Plan is consistent with this policy; Specific Plan objective 9.7 and policies 9.36, 9.37, 9.38, 9.39, 9.40, 9.41, 9.42, 9.43, 9.44, 9.45, and 9.46 describe drought tolerant landscaping and efficient building design.
Objective 7.3.2: Water Quality			
	7.3.2.1	Stream and lake embankments shall be protected from erosion, and streams and lakes shall be protected from excessive turbidity.	Impacts of erosion and water quality are described in Section 3.8, *Hydrology, Water Quality, and Water Resources*, Impacts WQ-3iii and WQ-6. The proposed Specific Plan is consistent with this policy with implementation of mitigation measures GEO-3d, BIO-1a, BIO-1b, BIO-1c, BIO-3a, BIO-3b, and BIO-4.
	7.3.2.2	Projects requiring a grading permit shall have an erosion control program approved, where necessary.	The proposed Specific Plan is consistent with this policy; Specific Plan objective 8.5 describes storm water management to prevent erosion and discussions of soil erosion and creation of a Stormwater Pollution Prevention Plan are provided in Section 3.5, *Geology, Soils, Minerals, and Paleontological Resources*, Impact GEO-2.

	Policy Numbers	Policy	Project Consistency
	7.3.2.3	Where practical and when warranted by the size of the project, parking lot storm drainage shall include facilities to separate oils and salts from storm water in accordance with the recommendations of the Storm Water Quality Task Force's California Storm Water Best Management Practices Handbooks (1993).	The proposed Specific Plan is consistent with this policy; a discussion of a Stormwater Pollution Prevention Plan is provided in Section 3.5, *Geology, Soils, Minerals, and Paleontological Resources*.
Objective 7.3.3: Wetlands			
	7.3.3.1	For projects that would result in the discharge of material to or that may affect the function and value of river, stream, lake, pond, or wetland features, the application shall include a delineation of all such features. For wetlands, the delineation shall be conducted using the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual.	Impacts to the function and value of waters are discussed in Section 3.3, *Biological Resources*, Impacts BIO-3 and BIO-4. The proposed Specific Plan is consistent with this policy with implementation of mitigation measures BIO-1a, BIO-1b, BIO-1c, BIO-3a, and BIO-3b.
	7.3.3.5	Rivers, streams, lakes and ponds, and wetlands shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site while disturbance to the resource is avoided or minimized and fragmentation is limited.	The proposed Specific Plan is consistent with this policy; preservation of wetlands is addressed in Specific Plan policy 6.8, preservation of Deer and Marble Creeks is addressed in Specific Plan policy 6.13, and development integration is addressed in Specific Plan policies 6.14 and 6.15.
Objective 7.3.4: Drainage			
	7.3.4.1	Natural watercourses shall be integrated into new development in such a way that they enhance the aesthetic and natural character of the site without disturbance.	The proposed Specific Plan is consistent with this policy; preservation of Deer and Marble Creeks is addressed in Specific Plan policy 6.13 and development integration is addressed in Specific Plan policies 6.14 and 6.15.
	7.3.4.2	Modification of natural stream beds and flow shall be regulated to ensure that adequate mitigation measures are utilized.	The proposed Specific Plan is consistent with this policy; preservation of Deer and Marble Creeks in their natural state is addressed in Specific Plan policy 6.13.
Objective 7.3.5: Water Conservation			
	7.3.5.1	Drought-tolerant plant species, where feasible, shall be used for landscaping of commercial development. Where the use of drought-tolerant native plant species is feasible, they should be used instead of non-native plant species.	The proposed Specific Plan is consistent with this policy; Specific Plan policy 9.44 requires the use of drought tolerant and native plant species in a minimum of 75% of the Plan Area.
	7.3.5.4	Require efficient water conveyance systems in new construction. Establish a program of ongoing conversion of open ditch systems shall be considered for conversion to closed conduits, reclaimed water supplies, or both, as circumstances permit.	The proposed Specific Plan is consistent with this policy; Specific Plan policy 9.40 addresses creation of a backbone recycled water system for landscaping and Specific Plan policy 9.41 addresses use of recycled water for nonresidential toilet flushing.
	7.3.5.5	Encourage water reuse programs to conserve raw or potable water supplies consistent with State Law.	The proposed Specific Plan is consistent with this policy; Specific Plan policy 9.40 addresses creation of a backbone recycled water system for parks, schools and landscaped corridors.
Goal 7.4: Wildlife and Vegetation Resources			

	Policy Numbers	Policy	Project Consistency
Objective 7.4.2: Identify and Protect Resources			
	7.4.2.3	Consistent with Policy 9.1.3.1 of the Parks and Recreation Element, low impact uses such as trails and linear parks may be provided within river and stream buffers if all applicable mitigation measures are incorporated into the design.	The proposed Specific Plan is consistent with this policy; Specific Plan policy 6.43 addresses siting of infrastructure to minimize impacts to Deer and Marble Creeks.
	7.4.2.4	Protect and preserve wildlife habitat corridors within public parks and natural resource protection areas to allow for wildlife use. Recreational uses within these areas shall be limited to those activities that do not require grading or vegetation removal.	Conservation of wildlife corridors is provided in Section 3.3, *Biological Resources*, Impact BIO-14. Implementation of mitigation measures BIO-1d and BIO-9b would ensure that the proposed Specific Plan would be consistent with this policy.
	7.4.2.8	Conserve contiguous blocks of important habitat to offset the effects of increased habitat loss and fragmentation elsewhere in the County through a Biological Resource Mitigation Program (Program). The Program will result in the conservation of: 1. Habitats that support special status species; 2. Aquatic environments including streams, rivers, and lakes; 3. Wetland and riparian habitat; 4. Important habitat for migratory deer herds; and 5. Large expanses of native vegetation. A. Habitat Protection Strategy. The Program establishes mitigation ratios to offset impacts to special-status species habitat and special-status vegetation communities within the County. Special-status species include plants and animals in the following categories: • Species listed or proposed for listing as Threatened or Endangered under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA); • Species considered as candidates for listing as Threatened or Endangered under ESA or CESA; • Wildlife species identified by California Department of Fish and Wildlife (CDFW) as Species of Special Concern; • Wildlife species identified by US Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) as Species of Concern; • Plants listed as Endangered or Rare under the California Native Plant Protection Act; • Animals fully protected under the California Fish and Game Code; • Plants that have a California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) of 1A (plants presumed extirpated in California and either rare or extinct elsewhere), 1B (plants rare, threatened, or endangered in California and elsewhere), 2A (plants presumed extirpated in California, but more common elsewhere), or 2B (plants rare, threatened, or endangered in California, but more common elsewhere). The CNPS CRPRs are used by both CDFW and USFWS in their consideration of formal species protection under ESA or CESA. C. Biological Resources Assessment. A site-specific biological resources technical report will be required to determine the presence of special-status biological resources that may be affected by a proposed discretionary project. Vegetation communities and special-status plants shall be mapped and assessed in accordance with the CDFG 2009 Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities and subsequent updates, and the List of Vegetation Alliances and Associations (CDFG 2010) and subsequent updates. Any surveys conducted to evaluate potential presence of special-status wildlife species shall conform to practices recommended by CDFW and/or USFWS at the time of the surveys. The report will include an assessment of direct, indirect and cumulative impacts to biological resources, including vegetation communities, plant and wildlife species and wildlife movement. The report shall include recommendations for: • pre-construction surveys and avoidance/protection measures for nesting birds; • pre-construction surveys and avoidance/protection measures for roosting bats; • avoidance and minimization measures to reduce impacts related to entrapment, entanglement, injury, or poisoning of wildlife; and avoidance and minimization measures to reduce indirect impacts to wildlife in open space adjacent to a project site. The results of the biological resources technical report shall be used as the basis for establishing mitigation requirements in conformance with this policy and the Oak Resources Management Plan (ORMP, see General Plan Policy 7.4.4.4).	Conservation of wildlife corridors is provided in Section 3.3, *Biological Resources*, Impact BIO-14. Implementation of mitigation measures BIO-1d and BIO-19b would ensure that the proposed Specific Plan would be consistent with this policy. The proposed Specific Plan is consistent with policies 6.29 and 6.30 that address habitat conservation consistent with the ORMP, and Policy 7.4.4.4 (Option A) depending on which regulation is in place at the time of development. Discussions of specific species and habitat preservation strategies are provided in Section 3.3, *Biological Resources*, Impacts BIO-1, BIO-2, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9, BIO-10, BIO-11, BIO-12, BIO-13, and BIO-14. Implementation of mitigation measures BIO-1a, BIO-1b, BIO-1c, BIO-1d, BIO-1e, BIO-2, BIO-6a, BIO-6b, BIO-7a, BIO-7b, BIO-8, BIO-9, BIO-10a, BIO-10b, BIO-11a, BIO-11b, BIO-12, BIO-13, and BIO-14 would ensure that the proposed Specific Plan would be consistent with this policy.
Objective 7.4.4: Forest, Oak Woodland, and Tree Resources			

	Policy Numbers	Policy	Project Consistency
	7.4.4.2	Through the review of discretionary projects, the County, consistent with any limitations imposed by State law, shall encourage the protection, planting, restoration, and regeneration of native trees in new developments and within existing communities.	The proposed Specific Plan is consistent with this policy; Specific Plan policy 6.35 addresses use of a tree preservation and replacement plan to protect native trees.
	7.4.4.3	Utilize the clustering of development to retain the largest contiguous areas of forests and oak woodlands possible.	The proposed Specific Plan is consistent with this policy; Specific Plan policies 6.29 and 6.30 address clustering of development areas to retain contiguous stands of oak woodland habitat.
	7.4.4.4	For all new development projects or actions that result in impacts to oak woodlands and/or individual native oak trees, including Heritage Trees, the County shall require mitigation as outlined in the El Dorado County Oak Resources Management Plan (ORMP). The ORMP functions as the oak resources component of the County's biological resources mitigation program, identified in Policy 7.4.2.8.	The proposed Specific Plan is consistent with this policy; Specific Plan policies 6.29 and 6.30 address woodland habitat restoration and enhancement within the BRS/IHMP and is discussed in Section 3.3, *Biological Resources*.
	7.4.4.5	Where existing individual or a group of oak trees are lost within a stand, a corridor of oak trees shall be retained that maintains continuity between all portions of the stand. The retained corridor shall have a tree density that is equal to the density of the stand.	The proposed Specific Plan is consistent with this policy; Specific Plan policies 6.29 and 6.30 address retention of contiguous tree stands and a tree survey, preservation, and replacement plan.
Objective 7.4.5: Native Vegetation and Landmark Trees			
	7.4.5.1	A tree survey, preservation, and replacement plan shall be required to be filed with the County prior to issuance of a grading permit for discretionary permits on all high-density residential, multifamily residential, commercial, and industrial projects. To ensure that proposed replacement trees survive, a mitigation monitoring plan should be incorporated into discretionary projects when applicable and shall include provisions for necessary replacement of trees.	The proposed Specific Plan is consistent with this policy; Specific Plan policy 6.35 addresses use of a tree preservation and replacement plan to protect native trees.
Goal 7.5: Cultural Resources			
Objective 7.5.1: Protection of Cultural Heritage			
	7.5.1.3	Cultural resource studies (historic, prehistoric, and paleontological resources) shall be conducted prior to approval of discretionary projects. Studies may include, but are not limited to, record searches through the North Central Information Center at California State University, Sacramento, the Museum of Paleontology, University of California, Berkeley, field surveys, subsurface testing, and/or salvage excavations. The avoidance and protection of sites shall be encouraged.	The proposed Specific Plan is consistent with this policy; as described in Section 3.4, *Cultural Resources*, cultural resources studies have been conducted.
Objective 7.5.2: Visual Integrity			
	7.5.2.4	The County shall prohibit the modification of all National Register of Historic Places (NRHP)/California Register of Historical Resources (CRHR) listed properties that would alter their integrity, historic setting, and appearance to a degree that would preclude their continued listing on these registers. If avoidance of such modifications on privately owned listed properties is deemed infeasible, mitigation measures commensurate with NRHP/CRHR standards shall be formulated in cooperation with the property owner.	The proposed Specific Plan is consistent with this policy; Specific Plan policy 6.36 addresses development of avoidance and mitigation plans to prevent significant impacts to listed properties.
	7.5.2.5	In cases where the County permits the demolition or alteration of an historic building, such alteration or new construction (subsequent to demolition) shall be required to maintain the character of the historic building or replicate its historic features.	The proposed Specific Plan is consistent with this policy; as described in Section 3.4, *Cultural Resources*, no historical built environment resources are located in the project area.
Goal 7.6: Open Space Conservation			
Objective 7.6.1: Importance of Open Space			

	Policy Numbers	Policy	Project Consistency
	7.6.1.4	The creation of new open space areas, including Ecological Preserves, common areas of new subdivisions, and recreational areas, shall include wildfire safety planning.	The proposed Specific Plan is consistent with this policy; a discussion of wildfire safety is provided in Section 3.7, *Hazards and Hazardous Materials*, Impact HAZ-8.
PARKS & RECREATION ELEMENT			
Goal 9.1: Parks and Recreation Facilities			
Objective 9.1.1: Park Acquisition and Development			
	9.1.1.1	The County shall assist in the development of regional, community, and neighborhood parks, ensure a diverse range of recreational opportunities at a regional, community, and neighborhood level, and provide park design guidelines and development standards for park development. The following national standards shall be used as guidelines for the acquisition and development of park facilities: **Guidelines For Acquisition and Development of Park Facilities** **Park Types** — **Developed** Regional Parks — 1.5 ac/1,000 population Community Parks — 1.5 ac/1,000 population Neighborhood Parks — 2.0 ac/1,000 population *Specific Standards (Neighborhood and Community Parks)* Cameron Park Community Services District — 5.0 ac/1,000 population El Dorado Hills Community Services District — 5.0 ac/1,000 population Planned Communities — 5.0 ac/1,000 population The parkland dedication/in-lieu fees shall be directed towards the purchase and funding of neighborhood and community parks.	The proposed Specific Plan is consistent with this policy; a discussion of neighborhood and local parks that satisfy the dedication requirement of 5.0 acres park land per 1,000 population is provided in Section 3.13, *Recreation*, Impact REC-1.
	9.1.1.2	Neighborhood parks shall be primarily focused on serving walk-to or bike-to recreation needs. When possible, neighborhood parks should be adjacent to schools. Neighborhood parks are generally 2 to 10 acres in size and may include a playground, tot lot, turf areas, and picnic facilities.	The proposed Specific Plan is consistent with this policy; a discussion of placement of neighborhood parks adjacent to schools is provided in Section 3.13, *Recreation*, Impact REC-1.
	9.1.1.5	Parkland dedicated under the Quimby Act must be suitable for active recreation uses and: A. Shall have a maximum average slope of 10 percent; B. Shall have sufficient access for a community or neighborhood park; and C. Shall not contain significant constraints that would render the site unsuitable for development.	The proposed Specific Plan is consistent with this policy; park sites meet the criteria outlined in Policy 9.1.1.5. More discussion is provided in Section 3.13, *Recreation*.
Objective 9.1.2: County Trails			
	9.1.2.4	Evaluate every discretionary application as well as public facilities planning with regard to their ability to implement the *Hiking and Equestrian Trails Master Plan* and the *Bikeway Master Plan*.	The proposed Specific Plan is consistent with this policy; a discussion of proposed bicycle and pedestrian improvements is provided in Section 3.14, *Transportation and Circulation*, Impact TRA-1.
	9.1.2.8	Integrate and link, where possible, existing and proposed National, State, regional, County, city and local hiking, bicycle, and equestrian trails for public use.	The proposed Specific Plan is consistent with this policy; a discussion of an extensive trail system including Class I and II bikeways and paved and unpaved trails is provided in Section 3.14, *Transportation and Circulation*, Impact TRA-1.

	Policy Numbers	Policy	Project Consistency
Objective 9.1.3 Incorporation of Parks and Trails			
	9.1.3.1	Linear parks and trails may be incorporated along rivers, creeks, and streams wherever possible.	The proposed Specific Plan is consistent with this policy; the Specific Plan provides a trail system along Deer and Marble Creeks.
Goal 9.2: Funding			
Objective 9.2.2: Quimby Act			
	9.2.2.2	New development projects creating community or neighborhood parks shall provide mechanisms (e.g., homeowners associations, or benefit assessment districts) for the ongoing development, operation, and maintenance needs of these facilities if annexation to an existing parks and recreation service district/provider is not possible.	The proposed Specific Plan is consistent with this policy; a Specific Plan homeowners association is proposed to be created.
Objective 9.2.3: Grants, Fees and Contributions			
	9.2.3.5	The County will encourage private sector development, operation, and maintenance of recreation facilities.	The proposed Specific Plan is consistent with this policy; the project includes development, operation, and maintenance of some recreation facilities.
ECONOMIC DEVELOPMENT ELEMENT			
Goal 10.1: Cooperation			
Objective 10.1.9: Jobs-Housing Relationship			
	10.1.9.2	Encourage specific plans and large planned developments in Community Regions and Rural Centers to include a broad mix of housing types and relate it to local wage structures to achieve balance with existing and forecasted resident household needs.	The proposed Specific Plan provides low, medium-, and high-density housing.
	10.1.9.3	The County shall actively promote job generating land uses while de-emphasizing residential development unless it is tied to a strategy that is necessary to attract job generating land uses.	The proposed Specific Plan will include some job-generating uses with commercial development, and is in close proximity to other job generating land uses in the region.
Goal 10.2: Public Services and Infrastructure			
Objective 10.2.1: Public and Civic Facilities Investment			
	10.2.1.4	Require new discretionary development to pay its fair share of the costs of all civic and public and community facilities it utilizes based upon the demand for these facilities which can be attributed to new development.	The proposed Specific Plan is consistent with this policy; more discussion is provided in Section 3.12, *Public Services and Utilities*.
	10.2.1.5	A public facilities and services financing plan that assures that costs burdens of any civic, public, and community facilities, infrastructure, ongoing services, including operations and maintenance necessitated by a development proposal, as defined below, are adequately financed to assure no net cost burden to existing residents shall be submitted with the following development applications: A. Specific plans; and B. All residential, commercial, and industrial projects located within a Community Region or Rural Center which exceed the following thresholds: 1. Residential.....50 units 2. Commercial.....20 acres or 100,000 square feet 3. Industrial.....20 acres or 250,000 square feet	The proposed Specific Plan is consistent with this policy; the project includes a Specific Plan with a plan for provision of and funding for infrastructure and public services.

	Policy Numbers	Policy	Project Consistency
	10.2.1.6	Provision of new infrastructure and facilities shall be coordinated with existing infrastructure and facilities and shall maximize use of existing facilities capacity to the extent that any exists.	The proposed Specific Plan is consistent with this policy; the County has been in contact with and will coordinate with infrastructure providers (such as EID) to maximize use of existing capacity of facilities. Off-site infrastructure needs are addressed throughout the EIR.
Objective 10.2.2: Equitable Financing Methods for Public Improvements			
	10.2.2.2	Stress financing strategies that maximize the use of pay-as-you-go methods to gain the most benefit from available revenue without placing unreasonable burdens on new development. Program 10.2.2.2.1: When a project directly or indirectly impacts existing public services and/or infrastructure, it shall provide for and finance improvements consistent with the degree of impact to public services and/or infrastructure directly or indirectly attributed to the project. Cost to be borne by the project proponent shall be determined on the basis of the above described nexus and other pre-existing legally binding agreements such as development agreements.	The proposed Specific Plan is consistent with this policy; the project includes a Specific Plan with a plan for provision of and funding for infrastructure and public services.

Appendix C

Air Quality and Greenhouse Gas Studies and Calculations

Calculations

Construction CalEEMod

Rock Separating Activites - El Dorado-Mountain County County, Summer

Rock Separating Activites
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	1.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	2			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Construction Phase - Up to 50 days for soil movement
Off-road Equipment - Per applicant
Trips and VMT - per applicant
Grading - Per applicant

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	50.00
tblGrading	AcresOfGrading	525.00	0.50
tblGrading	MaterialExported	0.00	500,000.00
tblLandUse	LotAcreage	0.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	0.37

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	14.0278	237.7806	112.2123	0.2938	7.5324	5.3081	12.8406	3.3326	4.8887	8.2213	0.0000	29,248.02	29,248.025	6.2860	0.0000	29,405.17
Maximum	**14.0278**	**237.7806**	**112.2123**	**0.2938**	**7.5324**	**5.3081**	**12.8406**	**3.3326**	**4.8887**	**8.2213**	**0.0000**	**29,248.02**	**29,248.025**	**6.2860**	**0.0000**	**29,405.17**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2021	8/9/2021	5	50	

OffRoad Equipment

Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Plate Compactors	2	8.00	8	0.43
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Rubber Tired Loaders	2	8.00	203	0.36
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	17	43.00	0.00	62,500.00	10.80	7.30	0.37	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Fugitive Dust					6.7558	0	6.7558	3.1211	0	3.1211			0			0
Off-Road	11.6166	132.6782	81.2258	0.1822		5.2064	5.2064		4.7914	4.7914		17,625.04	17,625.04	5.6852		17,767.17
Total	**11.6166**	**132.6782**	**81.2258**	**0.1822**	**6.7558**	**5.2064**	**11.9622**	**3.1211**	**4.7914**	**7.9125**		**17,625.04**	**17,625.04**	**5.6852**		**17,767.17**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					

Hauling	2.1918	104.998	29.5803	0.108	0.4234	0.0992	0.5226	0.1178	0.0949	0.2127		11,273.26	11,273.26	0.5907		11,288.03
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.2195	0.1044	1.4062	3.51E-03	0.3532	2.58E-03	0.3558	0.0937	2.38E-03	0.0961		349.7193	349.7193	0.0102		349.9747
Total	**2.4112**	**105.1024**	**30.9865**	**0.1115**	**0.7766**	**0.1018**	**0.8784**	**0.2115**	**0.0972**	**0.3087**		**11,622.98**	**11,622.98**	**0.6009**		**11,638.00**

VMV 2021 Intrack - El Dorado-Mountain County County, Summer

VMV 2021 Intrack

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	75.00	Dwelling Unit	8.73	75,000.00	215
Single Family Housing	240.00	Dwelling Unit	83.75	432,000.00	686

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - Scaled durations to one year; assumed trenching duration is similar to site preparation
Off-road Equipment - Per applicant
Grading - assumed acreage graded
Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	155.00	105.00
tblConstructionPhase	NumDays	110.00	74.00
tblConstructionPhase	NumDays	60.00	41.00
tblConstructionPhase	PhaseEndDate	2/24/2028	9/17/2021

tblConstructionPhase	PhaseEndDate	3/17/2022	7/23/2021
tblConstructionPhase	PhaseEndDate	7/27/2028	12/30/2021
tblConstructionPhase	PhaseEndDate	8/12/2021	2/26/2021
tblConstructionPhase	PhaseStartDate	3/18/2022	7/24/2021
tblConstructionPhase	PhaseStartDate	8/13/2021	2/27/2021
tblConstructionPhase	PhaseStartDate	2/25/2028	9/18/2021
tblConstructionPhase	PhaseStartDate	5/21/2021	1/1/2021
tblGrading	AcresOfGrading	262.50	92.48
tblLandUse	LotAcreage	4.69	8.73
tblLandUse	LotAcreage	77.92	83.75
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2933	46.4484	31.5325	0.0637	18.2141	2.0455	20.2597	9.9699	1.8819	11.8518	0.0000	6,169.703	6,169.7036	1.9476	0.0000	6,218.392
Maximum	**4.2933**	**46.4484**	**31.5325**	**0.0637**	**18.2141**	**2.0455**	**20.2597**	**9.9699**	**1.8819**	**11.8518**	**0.0000**	**6,169.703**	**6,169.7036**	**1.9476**	**0.0000**	**6,218.392**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	2/26/2021	5	41	
2	Grading	Grading	2/27/2021	7/23/2021	5	105	
3	Utilities	Trenching	7/24/2021	9/17/2021	5	40	
4	Paving	Paving	9/18/2021	12/30/2021	5	74	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utilities	Excavators	4	8.00	158	0.38
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Excavators	2	8.00	158	0.38

Utilities	Cranes	0	7.00	231	0.29
Utilities	Forklifts	0	8.00	89	0.20
Utilities	Generator Sets	0	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Utilities	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Utilities	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	3.8882	40.4971	21.1543	0.038		2.0445	2.0445		1.8809	1.8809		3,685.66	3,685.66	1.192		3,715.46
Total	**3.8882**	**40.4971**	**21.1543**	**0.038**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.66**	**3,685.66**	**1.192**		**3,715.46**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0919	0.0437	0.5886	1.47E-03	0.1479	1.08E-03	0.149	0.0392	1.00E-03	0.0402		146.3941	146.3941	4.28E-03		146.501
Total	**0.0919**	**0.0437**	**0.5886**	**1.47E-03**	**0.1479**	**1.08E-03**	**0.149**	**0.0392**	**1.00E-03**	**0.0402**		**146.3941**	**146.3941**	**4.28E-03**		**146.501**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.9561	0	6.9561	3.4111	0	3.4111			0			0
Off-Road	4.1912	46.3998	30.8785	0.062		1.9853	1.9853		1.8265	1.8265		6,007.04	6,007.04	1.9428		6,055.61
Total	**4.1912**	**46.3998**	**30.8785**	**0.062**	**6.9561**	**1.9853**	**8.9415**	**3.4111**	**1.8265**	**5.2376**		**6,007.04**	**6,007.04**	**1.9428**		**6,055.61**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.1021	0.0486	0.6541	1.63E-03	0.1643	1.20E-03	0.1655	0.0436	1.11E-03	0.0447		162.6602	162.6602	4.75E-03		162.7789
Total	**0.1021**	**0.0486**	**0.6541**	**1.63E-03**	**0.1643**	**1.20E-03**	**0.1655**	**0.0436**	**1.11E-03**	**0.0447**		**162.6602**	**162.6602**	**4.75E-03**		**162.7789**

3.4 Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6108	16.4228	16.366	0.0333		0.6788	0.6788		0.6245	0.6245		3,227.28	3,227.28	1.0438		3,253.37
Total	**1.6108**	**16.4228**	**16.366**	**0.0333**		**0.6788**	**0.6788**		**0.6245**	**0.6245**		**3,227.28**	**3,227.28**	**1.0438**		**3,253.37**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0766	0.0364	0.4905	1.23E-03	0.1232	9.00E-04	0.1241	0.0327	8.30E-04	0.0335		121.9951	121.9951	3.56E-03		122.0842
Total	**0.0766**	**0.0364**	**0.4905**	**1.23E-03**	**0.1232**	**9.00E-04**	**0.1241**	**0.0327**	**8.30E-04**	**0.0335**		**121.9951**	**121.9951**	**3.56E-03**		**122.0842**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.21	2,207.21	0.7139		2,225.06
Paving	0					0	0		0	0			0			0
Total	**1.2556**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.21**	**2,207.21**	**0.7139**		**2,225.06**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0766	0.0364	0.4905	1.23E-03	0.1232	9.00E-04	0.1241	0.0327	8.30E-04	0.0335		121.9951	121.9951	3.56E-03		122.0842
Total	**0.0766**	**0.0364**	**0.4905**	**1.23E-03**	**0.1232**	**9.00E-04**	**0.1241**	**0.0327**	**8.30E-04**	**0.0335**		**121.9951**	**121.9951**	**3.56E-03**		**122.0842**

VMV 2021 NonRes - El Dorado-Mountain County County, Summer

VMV 2021 NonRes

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	13.00	Acre	13.00	566,280.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use -
Construction Phase - Scaled durations to one year; Park; no demolition, building construction, paving, coatings
Grading - Park acreage graded

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	3/25/2021	2/25/2021
tblConstructionPhase	PhaseEndDate	2/11/2021	1/14/2021
tblConstructionPhase	PhaseStartDate	2/12/2021	1/15/2021
tblConstructionPhase	PhaseStartDate	1/29/2021	1/1/2021
tblGrading	AcresOfGrading	75.00	13.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2933	46.4484	31.5325	0.0637	18.2141	2.0455	20.2597	9.9699	1.8819	11.8518	0.0000	6,169.703	6,169.7036	1.9476	0.0000	6,218.392
Maximum	**4.2933**	**46.4484**	**31.5325**	**0.0637**	**18.2141**	**2.0455**	**20.2597**	**9.9699**	**1.8819**	**11.8518**	**0.0000**	**6,169.703**	**6,169.7036**	**1.9476**	**0.0000**	**6,218.392**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	1/14/2021	5	10	
2	Grading	Grading	1/15/2021	2/25/2021	5	30	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	3.8882	40.4971	21.1543	0.038		2.0445	2.0445		1.8809	1.8809		3,685.66	3,685.66	1.192		3,715.46
Total	**3.8882**	**40.4971**	**21.1543**	**0.038**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.66**	**3,685.66**	**1.192**		**3,715.46**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0919	0.0437	0.5886	1.47E-03	0.1479	1.08E-03	0.149	0.0392	1.00E-03	0.0402		146.3941	146.3941	4.28E-03		146.501
Total	**0.0919**	**0.0437**	**0.5886**	**1.47E-03**	**0.1479**	**1.08E-03**	**0.149**	**0.0392**	**1.00E-03**	**0.0402**		**146.3941**	**146.3941**	**4.28E-03**		**146.501**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4816	0	6.4816	3.3599	0	3.3599			0			0
Off-Road	4.1912	46.3998	30.8785	0.062		1.9853	1.9853		1.8265	1.8265		6,007.04	6,007.04	1.9428		6,055.61
Total	**4.1912**	**46.3998**	**30.8785**	**0.062**	**6.4816**	**1.9853**	**8.467**	**3.3599**	**1.8265**	**5.1864**		**6,007.04**	**6,007.04**	**1.9428**		**6,055.61**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.1021	0.0486	0.6541	1.63E-03	0.1643	1.20E-03	0.1655	0.0436	1.11E-03	0.0447		162.6602	162.6602	4.75E-03		162.7789
Total	**0.1021**	**0.0486**	**0.6541**	**1.63E-03**	**0.1643**	**1.20E-03**	**0.1655**	**0.0436**	**1.11E-03**	**0.0447**		**162.6602**	**162.6602**	**4.75E-03**		**162.7789**

VMV 2022 Intrack - El Dorado-Mountain County County, Summer

VMV 2022 Intrack

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Popula
Apartments Low Rise	209.00	Dwelling Unit	10.62	209,000.00	598
Single Family Housing	25.00	Dwelling Unit	8.72	45,000.00	72

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - assumed trenching duration is similar to site preparation
Off-road Equipment - Per applicant
Grading - assumed acreage graded

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	5/19/2023	3/11/2022
tblConstructionPhase	PhaseEndDate	3/25/2022	2/25/2022
tblConstructionPhase	PhaseEndDate	6/16/2023	4/8/2022
tblConstructionPhase	PhaseEndDate	2/11/2022	1/14/2022
tblConstructionPhase	PhaseStartDate	3/26/2022	2/26/2022
tblConstructionPhase	PhaseStartDate	2/12/2022	1/15/2022
tblConstructionPhase	PhaseStartDate	5/20/2023	3/12/2022
tblConstructionPhase	PhaseStartDate	1/29/2022	1/1/2022

tblGrading	AcresOfGrading	75.00	19.34
tblLandUse	LotAcreage	13.06	10.62
tblLandUse	LotAcreage	8.12	8.72
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.7212	38.8872	29.6423	0.0637	18.2141	1.6361	19.8277	9.9699	1.5052	11.4544	0	6,168.30	6,168.30	1.9485	0	6,217.01
Maximum	**3.7212**	**38.8872**	**29.6423**	**0.0637**	**18.2141**	**1.6361**	**19.8277**	**9.9699**	**1.5052**	**11.4544**	**0**	**6,168.30**	**6,168.30**	**1.9485**	**0**	**6,217.01**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2022	1/14/2022	5	10	
2	Grading	Grading	1/15/2022	2/25/2022	5	30	
3	Utilities	Trenching	2/26/2022	3/11/2022	5	10	
4	Paving	Paving	3/12/2022	4/8/2022	5	20	

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utilities	Excavators	4	8.00	158	0.38
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Excavators	2	8.00	158	0.38
Utilities	Cranes	0	7.00	231	0.29
Utilities	Forklifts	0	8.00	89	0.20
Utilities	Generator Sets	0	8.00	84	0.74
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Utilities	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40

Grading	Scrapers	2	8.00	367	0.48
Utilities	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle Class	Vendor Vehicle	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	3.1701	33.0835	19.6978	0.038		1.6126	1.6126		1.4836	1.4836		3,686.06	3,686.06	1.1922		3,715.87
Total	**3.1701**	**33.0835**	**19.6978**	**0.038**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**		**3,686.06**	**3,686.06**	**1.1922**		**3,715.87**

Unmitigated Construction Off-Site

Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0867	0.0394	0.5407	1.42E-03	0.1479	1.04E-03	0.1489	0.0392	9.60E-04	0.0402		141.1982	141.1982	3.84E-03		141.2941
Total	**0.0867**	**0.0394**	**0.5407**	**1.42E-03**	**0.1479**	**1.04E-03**	**0.1489**	**0.0392**	**9.60E-04**	**0.0402**		**141.1982**	**141.1982**	**3.84E-03**		**141.2941**

3.3 Grading - 2022

Unmitigated Construction On-Site

Category	lb/day										lb/day					
Fugitive Dust					6.7058	0	6.7058	3.3841	0	3.3841			0			0
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.41	6,011.41	1.9442		6,060.02
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**6.7058**	**1.6349**	**8.3407**	**3.3841**	**1.5041**	**4.8882**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0

Worker	0.0964	0.0438	0.6008	1.58E-03	0.1643	1.16E-03	0.1655	0.0436	1.07E-03	0.0447		156.8869	156.8869	4.26E-03		156.9935
Total	**0.0964**	**0.0438**	**0.6008**	**1.58E-03**	**0.1643**	**1.16E-03**	**0.1655**	**0.0436**	**1.07E-03**	**0.0447**		**156.8869**	**156.8869**	**4.26E-03**		**156.9935**

3.4 Utilities - 2022

Unmitigated Construction On-Site

Category	lb/day											lb/day				
Off-Road	1.3924	13.1579	16.083	0.0332		0.5466	0.5466		0.5029	0.5029		3,211.39	3,211.39	1.0386		3,237.36
Total	**1.3924**	**13.1579**	**16.083**	**0.0332**		**0.5466**	**0.5466**		**0.5029**	**0.5029**		**3,211.39**	**3,211.39**	**1.0386**		**3,237.36**

Unmitigated Construction Off-Site

Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0723	0.0328	0.4506	1.18E-03	0.1232	8.70E-04	0.1241	0.0327	8.00E-04	0.0335		117.6652	117.6652	3.20E-03		117.7451
Total	**0.0723**	**0.0328**	**0.4506**	**1.18E-03**	**0.1232**	**8.70E-04**	**0.1241**	**0.0327**	**8.00E-04**	**0.0335**		**117.6652**	**117.6652**	**3.20E-03**		**117.7451**

3.5 Paving - 2022

Unmitigated Construction On-Site

Category	lb/day											lb/day				
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.66	2,207.66	0.714		2,225.51
Paving	0					0	0		0	0			0			0
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.66**	**2,207.66**	**0.714**		**2,225.51**

Unmitigated Construction Off-Site

Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0723	0.0328	0.4506	1.18E-03	0.1232	8.70E-04	0.1241	0.0327	8.00E-04	0.0335		117.6652	117.6652	3.20E-03		117.7451
Total	**0.0723**	**0.0328**	**0.4506**	**1.18E-03**	**0.1232**	**8.70E-04**	**0.1241**	**0.0327**	**8.00E-04**	**0.0335**		**117.6652**	**117.6652**	**3.20E-03**		**117.7451**

VMV 2022 Vertical - El Dorado-Mountain County County, Summer

VMV 2022 Vertical
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	35.00	Dwelling Unit	4.07	35,000.00	100
Single Family Housing	125.00	Dwelling Unit	43.62	225,000.00	358

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - Scaled durations to one year
Trips and VMT -
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	55.00	18.00
tblConstructionPhase	NumDays	740.00	242.00
tblLandUse	LotAcreage	2.19	4.07

tblLandUse	LotAcreage	40.58	43.62

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	271.4195	17.5926	19.0344	0.0370	0.6894	0.8183	1.5077	0.1854	0.7699	0.9553	0.0000	3,577.348	3,577.3481	0.6344	0.0000	3,593.207
Maximum	**271.4195**	**17.5926**	**19.0344**	**0.0370**	**0.6894**	**0.8183**	**1.5077**	**0.1854**	**0.7699**	**0.9553**	**0.0000**	**3,577.348**	**3,577.3481**	**0.6344**	**0.0000**	**3,593.207**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2022	12/6/2022	5	242	
2	Architectural Coating	Architectural Coating	12/7/2022	12/30/2022	5	18	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Building Construction	9	70.00	17.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.809	0.809		0.7612	0.7612		2,554.33	2,554.33	0.612		2,569.63
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.809**	**0.809**		**0.7612**	**0.7612**		**2,554.33**	**2,554.33**	**0.612**		**2,569.63**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0544	1.8238	0.5682	4.54E-03	0.1144	5.18E-03	0.1196	0.0329	4.96E-03	0.0378		473.9104	473.9104	7.50E-03		474.0979
Worker	0.3373	0.1532	2.1028	5.51E-03	0.575	4.06E-03	0.5791	0.1525	3.74E-03	0.1563		549.1041	549.1041	0.0149		549.4771
Total	**0.3917**	**1.9769**	**2.671**	**0.0101**	**0.6894**	**9.24E-03**	**0.6987**	**0.1854**	**8.70E-03**	**0.1941**		**1,023.01**	**1,023.01**	**0.0224**		**1,023.58**

3.3 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	271.1475					0	0		0	0			0			0
Off-Road	0.2045	1.4085	1.8136	2.97E-03		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**271.352**	**1.4085**	**1.8136**	**2.97E-03**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0675	0.0306	0.4206	1.10E-03	0.115	8.10E-04	0.1158	0.0305	7.50E-04	0.0313		109.8208	109.8208	2.98E-03		109.8954
Total	**0.0675**	**0.0306**	**0.4206**	**1.10E-03**	**0.115**	**8.10E-04**	**0.1158**	**0.0305**	**7.50E-04**	**0.0313**		**109.8208**	**109.8208**	**2.98E-03**		**109.8954**

VMV 2023 Intrack - El Dorado-Mountain County County, Summer

VMV 2023 Intrack

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	235.00	Dwelling Unit	82.00	423,000.00	672

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage scaled from total acreage for buildout of land use

Construction Phase - Scaled durations to one year; assumed trenching duration is similar to site preparation

Off-road Equipment - Per applicant

Trips and VMT -

Grading - total acreage graded

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	155.00	105.00
tblConstructionPhase	NumDays	110.00	74.00
tblConstructionPhase	NumDays	60.00	41.00

tblGrading	AcresOfGrading	262.50	82.00
tblLandUse	LotAcreage	76.30	82.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.4126	34.5550	28.6026	0.0636	18.2141	1.4256	19.4812	9.9699	1.3116	11.1356	0.0000	6,162.5512	6,162.5512	1.9481	0.0000	6,211.2525
Maximum	**3.4126**	**34.5550**	**28.6026**	**0.0636**	**18.2141**	**1.4256**	**19.4812**	**9.9699**	**1.3116**	**11.1356**	**0.0000**	**6,162.5512**	**6,162.5512**	**1.9481**	**0.0000**	**6,211.2525**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2023	2/27/2023	5	41	
2	Grading	Grading	2/28/2023	7/24/2023	5	105	
3	Utilities	Trenching	7/25/2023	9/18/2023	5	40	
4	Paving	Paving	9/19/2023	12/29/2023	5	74	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Cranes	0	7.00	231	0.29
Utilities	Excavators	4	8.00	158	0.38
Utilities	Forklifts	0	8.00	89	0.20
Utilities	Generator Sets	0	8.00	84	0.74
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Utilities	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Utilities	Welders	0	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42

Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip Length	Hauling Trip	Worker Vehicle Class	Vendor Vehicle	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.6595	27.5242	18.2443	0.0381		1.266	1.266		1.1647	1.1647		3,687.31	3,687.31	1.1926		3,717.12
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**18.0663**	**1.266**	**19.3323**	**9.9307**	**1.1647**	**11.0954**		**3,687.31**	**3,687.31**	**1.1926**		**3,717.12**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0818	0.0355	0.4963	1.37E-03	0.1479	1.01E-03	0.1489	0.0392	9.30E-04	0.0402		135.9662	135.9662	3.43E-03		136.052
Total	**0.0818**	**0.0355**	**0.4963**	**1.37E-03**	**0.1479**	**1.01E-03**	**0.1489**	**0.0392**	**9.30E-04**	**0.0402**		**135.9662**	**135.9662**	**3.43E-03**		**136.052**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.8503	0	6.8503	3.3997	0	3.3997			0			0
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.48	6,011.48	1.9442		6,060.08
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**6.8503**	**1.4245**	**8.2748**	**3.3997**	**1.3105**	**4.7102**		**6,011.48**	**6,011.48**	**1.9442**		**6,060.08**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0909	0.0394	0.5514	1.52E-03	0.1643	1.12E-03	0.1654	0.0436	1.04E-03	0.0446		151.0735	151.0735	3.82E-03		151.1689
Total	**0.0909**	**0.0394**	**0.5514**	**1.52E-03**	**0.1643**	**1.12E-03**	**0.1654**	**0.0436**	**1.04E-03**	**0.0446**		**151.0735**	**151.0735**	**3.82E-03**		**151.1689**

3.4 Utilities - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2957	11.5038	16.0506	0.0332		0.481	0.481		0.4425	0.4425		3,211.54	3,211.54	1.0387		3,237.51
Total	**1.2957**	**11.5038**	**16.0506**	**0.0332**		**0.481**	**0.481**		**0.4425**	**0.4425**		**3,211.54**	**3,211.54**	**1.0387**		**3,237.51**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0682	0.0296	0.4136	1.14E-03	0.1232	8.40E-04	0.1241	0.0327	7.80E-04	0.0335		113.3051	113.3051	2.86E-03		113.3767
Total	**0.0682**	**0.0296**	**0.4136**	**1.14E-03**	**0.1232**	**8.40E-04**	**0.1241**	**0.0327**	**7.80E-04**	**0.0335**		**113.3051**	**113.3051**	**2.86E-03**		**113.3767**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.58	2,207.58	0.714		2,225.43
Paving	0					0	0		0	0			0			0
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.58**	**2,207.58**	**0.714**		**2,225.43**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0

Worker	0.0682	0.0296	0.4136	1.14E-03	0.1232	8.40E-04	0.1241	0.0327	7.80E-04	0.0335		113.3051	113.3051	2.86E-03		113.3767
Total	**0.0682**	**0.0296**	**0.4136**	**1.14E-03**	**0.1232**	**8.40E-04**	**0.1241**	**0.0327**	**7.80E-04**	**0.0335**		**113.3051**	**113.3051**	**2.86E-03**		**113.3767**

VMV 2023 NonRes - El Dorado-Mountain County County, Summer

VMV 2023 NonRes
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	6.00	Acre	6.00	261,360.00	0
User Defined Recreational	12,750.00	User Defined Unit	0.29	0.00	0
User Defined Recreational	18.00	User Defined Unit	18.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	2			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - sf converted to acres
Construction Phase - vineyards, parks, and paving; no demolition, building construction, or coatings
Off-road Equipment - added equipment for pedestrian trails and vineyards
Grading - total acreage graded

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	4/4/2023	3/3/2023
tblConstructionPhase	PhaseEndDate	5/2/2023	3/31/2023
tblConstructionPhase	PhaseEndDate	2/14/2023	1/13/2023
tblConstructionPhase	PhaseStartDate	2/15/2023	1/14/2023
tblConstructionPhase	PhaseStartDate	4/5/2023	3/4/2023
tblConstructionPhase	PhaseStartDate	2/1/2023	1/1/2023
tblGrading	AcresOfGrading	87.50	24.29
tblLandUse	LotAcreage	0.00	0.29

tblLandUse	LotAcreage	0.00	18.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	4.8809	48.9695	40.2711	0.0887	18.2141	2.0636	19.4812	9.9699	1.8985	11.1356	0.0000	8,598.040	8,598.0403	2.7065	0.0000	8,665.701
Maximum	**4.8809**	**48.9695**	**40.2711**	**0.0887**	**18.2141**	**2.0636**	**19.4812**	**9.9699**	**1.8985**	**11.1356**	**0.0000**	**8,598.040**	**8,598.0403**	**2.7065**	**0.0000**	**8,665.701**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2023	1/13/2023	5	10	
2	Grading	Grading	1/14/2023	3/3/2023	5	35	
3	Paving	Paving	3/4/2023	3/31/2023	5	20	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	13	33.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Paving		6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.6595	27.5242	18.2443	0.0381		1.266	1.266		1.1647	1.1647		3,687.31	3,687.31	1.1926		3,717.12
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**18.0663**	**1.266**	**19.3323**	**9.9307**	**1.1647**	**11.0954**		**3,687.31**	**3,687.31**	**1.1926**		**3,717.12**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0818	0.0355	0.4963	1.37E-03	0.1479	1.01E-03	0.1489	0.0392	9.30E-04	0.0402		135.9662	135.9662	3.43E-03		136.052
Total	**0.0818**	**0.0355**	**0.4963**	**1.37E-03**	**0.1479**	**1.01E-03**	**0.1489**	**0.0392**	**9.30E-04**	**0.0402**		**135.9662**	**135.9662**	**3.43E-03**		**136.052**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.7802	0	12.7802	6.6999	0	6.6999			0			0
Off-Road	4.731	48.9045	39.3613	0.0862		2.0618	2.0618		1.8968	1.8968		8,348.77	8,348.77	2.7002		8,416.27
Total	**4.731**	**48.9045**	**39.3613**	**0.0862**	**12.7802**	**2.0618**	**14.8419**	**6.6999**	**1.8968**	**8.5967**		**8,348.77**	**8,348.77**	**2.7002**		**8,416.27**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.1499	0.0651	0.9099	2.50E-03	0.2711	1.86E-03	0.2729	0.0719	1.71E-03	0.0736		249.2713	249.2713	6.30E-03		249.4287
Total	**0.1499**	**0.0651**	**0.9099**	**2.50E-03**	**0.2711**	**1.86E-03**	**0.2729**	**0.0719**	**1.71E-03**	**0.0736**		**249.2713**	**249.2713**	**6.30E-03**		**249.4287**

3.4 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.58	2,207.58	0.714		2,225.43
Paving	0.786					0	0		0	0			0			0
Total	**1.8187**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.58**	**2,207.58**	**0.714**		**2,225.43**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0682	0.0296	0.4136	1.14E-03	0.1232	8.40E-04	0.1241	0.0327	7.80E-04	0.0335		113.3051	113.3051	2.86E-03		113.3767
Total	**0.0682**	**0.0296**	**0.4136**	**1.14E-03**	**0.1232**	**8.40E-04**	**0.1241**	**0.0327**	**7.80E-04**	**0.0335**		**113.3051**	**113.3051**	**2.86E-03**		**113.3767**

VMV 2023 Vertical - El Dorado-Mountain County County, Summer

VMV 2023 Vertical

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Popula
Condo/Townhouse	40.00	Dwelling Unit	4.65	40,000.00	114
Apartments Low Rise	209.00	Dwelling Unit	10.62	209,000.00	598
Single Family Housing	140.00	Dwelling Unit	48.85	252,000.00	400

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage scaled from total acreage for buildout of land use

Construction Phase - Scaled durations to one year

Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00

tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	75.00	16.00
tblConstructionPhase	NumDays	1,110.00	244.00
tblConstructionPhase	PhaseEndDate	9/1/2028	12/29/2023
tblConstructionPhase	PhaseEndDate	2/4/2028	12/7/2023
tblConstructionPhase	PhaseStartDate	5/20/2028	12/8/2023
tblConstructionPhase	PhaseStartDate	11/4/2023	1/1/2023
tblLandUse	LotAcreage	2.50	4.65
tblLandUse	LotAcreage	13.06	10.62
tblLandUse	LotAcreage	45.45	48.85

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	588.1911	18.5004	23.8887	0.0554	2.1720	0.7205	2.8925	0.5824	0.6778	1.2602	0.0000	5,438.1824	5,438.1824	0.6675	0.0000	5,454.8698
Maximum	**588.1911**	**18.5004**	**23.8887**	**0.0554**	**2.1720**	**0.7205**	**2.8925**	**0.5824**	**0.6778**	**1.2602**	**0.0000**	**5,438.1824**	**5,438.1824**	**0.6675**	**0.0000**	**5,454.8698**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2023	12/7/2023	5	244	
2	Architectural Coating	Architectural Coating	12/8/2023	12/29/2023	5	16	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle Class	Vendor Vehicle	Hauling
Building Construction	9	230.00	42.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	46.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.244	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.21	2,555.21	0.6079		2,570.41
Total	**1.5728**	**14.3849**	**16.244**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.21**	**2,555.21**	**0.6079**		**2,570.41**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.1088	3.6619	1.3032	0.011	0.2826	7.82E-03	0.2904	0.0812	7.48E-03	0.0887		1,145.63	1,145.63	0.0158		1,146.02
Worker	1.0449	0.4535	6.3415	0.0174	1.8894	0.0129	1.9023	0.5012	0.0119	0.5131		1,737.35	1,737.35	0.0439		1,738.44
Total	**1.1537**	**4.1155**	**7.6447**	**0.0284**	**2.172**	**0.0208**	**2.1928**	**0.5824**	**0.0194**	**0.6018**		**2,882.97**	**2,882.97**	**0.0597**		**2,884.46**

3.3 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	587.7904					0	0		0	0			0			0
Off-Road	0.1917	1.303	1.8111	2.97E-03		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.869
Total	**587.9821**	**1.303**	**1.8111**	**2.97E-03**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.869**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.209	0.0907	1.2683	3.49E-03	0.3779	2.59E-03	0.3805	0.1002	2.38E-03	0.1026		347.4691	347.4691	8.78E-03		347.6885
Total	**0.209**	**0.0907**	**1.2683**	**3.49E-03**	**0.3779**	**2.59E-03**	**0.3805**	**0.1002**	**2.38E-03**	**0.1026**		**347.4691**	**347.4691**	**8.78E-03**		**347.6885**

VMV 2024 Intrack - El Dorado-Mountain County County, Summer

VMV 2024 Intrack

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	277.00	Dwelling Unit	32.23	277,000.00	792
Single Family Housing	110.00	Dwelling Unit	38.39	198,000.00	315

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - scaled durations to one year; assumed trenching duration is similiar to site preparation
Off-road Equipment - per applicant
Grading - total acreage graded
Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	110.00	108.00
tblConstructionPhase	NumDays	75.00	74.00
tblConstructionPhase	NumDays	40.00	39.00
tblConstructionPhase	PhaseEndDate	2/2/2029	9/16/2024
tblConstructionPhase	PhaseEndDate	11/1/2024	7/23/2024
tblConstructionPhase	PhaseEndDate	5/18/2029	12/27/2024

tblConstructionPhase	PhaseEndDate	5/31/2024	2/22/2024
tblConstructionPhase	PhaseStartDate	11/2/2024	7/24/2024
tblConstructionPhase	PhaseStartDate	6/1/2024	2/23/2024
tblConstructionPhase	PhaseStartDate	2/3/2029	9/17/2024
tblConstructionPhase	PhaseStartDate	4/6/2024	1/1/2024
tblGrading	AcresOfGrading	270.00	70.61
tblLandUse	LotAcreage	17.31	32.23
tblLandUse	LotAcreage	35.71	38.39
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	3.3040	32.4126	28.2327	0.0635	18.2141	1.3365	19.4445	9.9699	1.2296	11.1018	0.0000	6,155.0406	6,155.0406	1.9471	0.0000	6,203.7182
Maximum	**3.3040**	**32.4126**	**28.2327**	**0.0635**	**18.2141**	**1.3365**	**19.4445**	**9.9699**	**1.2296**	**11.1018**	**0.0000**	**6,155.0406**	**6,155.0406**	**1.9471**	**0.0000**	**6,203.7182**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2024	2/22/2024	5	39	
2	Grading	Grading	2/23/2024	7/23/2024	5	108	
3	Utilities	Trenching	7/24/2024	9/16/2024	5	39	
4	Paving	Paving	9/17/2024	12/27/2024	5	74	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utilities	Excavators	4	8.00	158	0.38
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Excavators	2	8.00	158	0.38
Utilities	Cranes	0	7.00	231	0.29

Utilities	Forklifts	0	8.00	89	0.20
Utilities	Generator Sets	0	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Utilities	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Utilities	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle Class	Vendor Vehicle	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.6609	27.176	18.3356	0.0381		1.2294	1.2294		1.131	1.131		3,688.01	3,688.01	1.1928		3,717.83
Total	**2.6609**	**27.176**	**18.3356**	**0.0381**	**18.0663**	**1.2294**	**19.2956**	**9.9307**	**1.131**	**11.0617**		**3,688.01**	**3,688.01**	**1.1928**		**3,717.83**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0772	0.0321	0.4589	1.31E-03	0.1479	9.80E-04	0.1489	0.0392	9.00E-04	0.0401		130.7627	130.7627	3.09E-03		130.8399
Total	**0.0772**	**0.0321**	**0.4589**	**1.31E-03**	**0.1479**	**9.80E-04**	**0.1489**	**0.0392**	**9.00E-04**	**0.0401**		**130.7627**	**130.7627**	**3.09E-03**		**130.8399**

3.3 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7154	0	6.7154	3.3851	0	3.3851			0			0
Off-Road	3.2181	32.377	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.75	6,009.75	1.9437		6,058.34
Total	**3.2181**	**32.377**	**27.7228**	**0.0621**	**6.7154**	**1.3354**	**8.0508**	**3.3851**	**1.2286**	**4.6137**		**6,009.75**	**6,009.75**	**1.9437**		**6,058.34**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0858	0.0356	0.5099	1.46E-03	0.1643	1.09E-03	0.1654	0.0436	1.01E-03	0.0446		145.2919	145.2919	3.43E-03		145.3776
Total	**0.0858**	**0.0356**	**0.5099**	**1.46E-03**	**0.1643**	**1.09E-03**	**0.1654**	**0.0436**	**1.01E-03**	**0.0446**		**145.2919**	**145.2919**	**3.43E-03**		**145.3776**

3.4 Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2351	10.3182	16.1325	0.0334		0.4343	0.4343		0.3996	0.3996		3,228.15	3,228.15	1.0441		3,254.25
Total	**1.2351**	**10.3182**	**16.1325**	**0.0334**		**0.4343**	**0.4343**		**0.3996**	**0.3996**		**3,228.15**	**3,228.15**	**1.0441**		**3,254.25**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0644	0.0267	0.3824	1.09E-03	0.1232	8.20E-04	0.124	0.0327	7.50E-04	0.0334		108.9689	108.9689	2.57E-03		109.0332
Total	**0.0644**	**0.0267**	**0.3824**	**1.09E-03**	**0.1232**	**8.20E-04**	**0.124**	**0.0327**	**7.50E-04**	**0.0334**		**108.9689**	**108.9689**	**2.57E-03**		**109.0332**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.431	0.431		2,207.55	2,207.55	0.714		2,225.40
Paving	0					0	0		0	0			0			0
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.431**	**0.431**		**2,207.55**	**2,207.55**	**0.714**		**2,225.40**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0644	0.0267	0.3824	1.09E-03	0.1232	8.20E-04	0.124	0.0327	7.50E-04	0.0334		108.9689	108.9689	2.57E-03		109.0332
Total	**0.0644**	**0.0267**	**0.3824**	**1.09E-03**	**0.1232**	**8.20E-04**	**0.124**	**0.0327**	**7.50E-04**	**0.0334**		**108.9689**	**108.9689**	**2.57E-03**		**109.0332**

VMV 2024 Vertical - El Dorado-Mountain County County, Summer

VMV 2024 Vertical

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	63.00	Dwelling Unit	21.98	113,400.00	180

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage scaled from total acreage for buildout of land use

Construction Phase - Scaled durations to one year

Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	20.00	13.00

tblConstructionPhase	NumDays	370.00	247.00
tblLandUse	LotAcreage	20.45	21.98

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	163.9496	14.0771	16.9593	0.0305	0.2361	0.6158	0.8518	0.0637	0.5792	0.6429	0.0000	2,912.7942	2,912.7942	0.6108	0.0000	2,928.063
Maximum	**163.9496**	**14.0771**	**16.9593**	**0.0305**	**0.2361**	**0.6158**	**0.8518**	**0.0637**	**0.5792**	**0.6429**	**0.0000**	**2,912.7942**	**2,912.7942**	**0.6108**	**0.0000**	**2,928.063**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2024	12/10/2024	5	247	
2	Architectural Coating	Architectural Coating	12/11/2024	12/27/2024	5	13	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Building Construction	9	23.00	7.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.027		0.6133	0.6133		0.5769	0.5769		2,555.70	2,555.70	0.6044		2,570.81
Total	**1.4716**	**13.4438**	**16.1668**	**0.027**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.70**	**2,555.70**	**0.6044**		**2,570.81**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0174	0.5923	0.2061	1.82E-03	0.0471	1.22E-03	0.0483	0.0135	1.16E-03	0.0147		190.0097	190.0097	2.46E-03		190.0711
Worker	0.0987	0.041	0.5863	1.68E-03	0.1889	1.26E-03	0.1902	0.0501	1.16E-03	0.0513		167.0857	167.0857	3.94E-03		167.1843
Total	**0.116**	**0.6333**	**0.7925**	**3.50E-03**	**0.2361**	**2.48E-03**	**0.2385**	**0.0637**	**2.32E-03**	**0.066**		**357.0953**	**357.0953**	**6.40E-03**		**357.2554**

3.3 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	163.7474					0	0		0	0			0			0
Off-Road	0.1808	1.2188	1.8101	2.97E-03		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**163.9282**	**1.2188**	**1.8101**	**2.97E-03**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0215	8.91E-03	0.1275	3.60E-04	0.0411	2.70E-04	0.0414	0.0109	2.50E-04	0.0112		36.323	36.323	8.60E-04		36.3444
Total	**0.0215**	**8.91E-03**	**0.1275**	**3.60E-04**	**0.0411**	**2.70E-04**	**0.0414**	**0.0109**	**2.50E-04**	**0.0112**		**36.323**	**36.323**	**8.60E-04**		**36.3444**

VMV 2025 Intrack - El Dorado-Mountain County County, Summer

VMV 2025 Intrack
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	213.00	Dwelling Unit	24.78	213,000.00	609
Single Family Housing	25.00	Dwelling Unit	8.72	45,000.00	72

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - assumed trenching duration is similar to site preparation
Off-road Equipment - per applicant
Grading - total acreage graded
Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	4/13/2027	5/9/2025
tblConstructionPhase	PhaseEndDate	5/13/2025	4/11/2025
tblConstructionPhase	PhaseEndDate	6/1/2027	6/27/2025
tblConstructionPhase	PhaseEndDate	3/11/2025	2/7/2025
tblConstructionPhase	PhaseStartDate	5/14/2025	4/12/2025
tblConstructionPhase	PhaseStartDate	3/12/2025	2/8/2025
tblConstructionPhase	PhaseStartDate	4/14/2027	5/10/2025
tblConstructionPhase	PhaseStartDate	2/12/2025	1/12/2025
tblGrading	AcresOfGrading	112.50	33.51

tblLandUse	LotAcreage	13.31	24.78
tblLandUse	LotAcreage	8.12	8.72
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2025	2.9825	27.9752	26.8031	0.0635	18.2141	1.1320	19.3019	9.9699	1.0414	10.9706	0.0000	6,147.8526	6,147.8526	1.9463	0.0000	6,196.5101
Maximum	**2.9825**	**27.9752**	**26.8031**	**0.0635**	**18.2141**	**1.1320**	**19.3019**	**9.9699**	**1.0414**	**10.9706**	**0.0000**	**6,147.8526**	**6,147.8526**	**1.9463**	**0.0000**	**6,196.5101**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/12/2025	2/7/2025	5	20	
2	Grading	Grading	2/8/2025	4/11/2025	5	45	
3	Utilities	Trenching	4/12/2025	5/9/2025	5	20	
4	Paving	Paving	5/10/2025	6/27/2025	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 33.51

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utilities	Excavators	4	8.00	158	0.38
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Excavators	2	8.00	158	0.38

Utilities	Cranes	0	7.00	231	0.29
Utilities	Forklifts	0	8.00	89	0.20
Utilities	Generator Sets	0	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Utilities	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Utilities	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.4727	25.2339	17.9118	0.0381		1.0868	1.0868		0.9999	0.9999		3,689.10	3,689.10	1.1931		3,718.93
Total	**2.4727**	**25.2339**	**17.9118**	**0.0381**	**18.0663**	**1.0868**	**19.1531**	**9.9307**	**0.9999**	**10.9305**		**3,689.10**	**3,689.10**	**1.1931**		**3,718.93**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0732	0.0291	0.4248	1.26E-03	0.1479	9.60E-04	0.1488	0.0392	8.80E-04	0.0401		125.6141	125.6141	2.79E-03		125.6838
Total	**0.0732**	**0.0291**	**0.4248**	**1.26E-03**	**0.1479**	**9.60E-04**	**0.1488**	**0.0392**	**8.80E-04**	**0.0401**		**125.6141**	**125.6141**	**2.79E-03**		**125.6838**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.8118	0	6.8118	3.3955	0	3.3955			0			0
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.28	6,008.28	1.9432		6,056.86
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**6.8118**	**1.1309**	**7.9427**	**3.3955**	**1.0404**	**4.4359**		**6,008.28**	**6,008.28**	**1.9432**		**6,056.86**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0813	0.0323	0.472	1.40E-03	0.1643	1.07E-03	0.1654	0.0436	9.80E-04	0.0446		139.5712	139.5712	3.10E-03		139.6487
Total	**0.0813**	**0.0323**	**0.472**	**1.40E-03**	**0.1643**	**1.07E-03**	**0.1654**	**0.0436**	**9.80E-04**	**0.0446**		**139.5712**	**139.5712**	**3.10E-03**		**139.6487**

3.4 Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1313	8.647	16.0605	0.0334		0.3663	0.3663		0.337	0.337		3,228.66	3,228.66	1.0442		3,254.76
Total	**1.1313**	**8.647**	**16.0605**	**0.0334**		**0.3663**	**0.3663**		**0.337**	**0.337**		**3,228.66**	**3,228.66**	**1.0442**		**3,254.76**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.061	0.0242	0.354	1.05E-03	0.1232	8.00E-04	0.124	0.0327	7.40E-04	0.0334		104.6784	104.6784	2.32E-03		104.7365
Total	**0.061**	**0.0242**	**0.354**	**1.05E-03**	**0.1232**	**8.00E-04**	**0.124**	**0.0327**	**7.40E-04**	**0.0334**		**104.6784**	**104.6784**	**2.32E-03**		**104.7365**

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Off-Road	0.9152	8.5816	14.578	0.0228		0.4185	0.4185		0.385	0.385		2,206.75	2,206.75	0.7137		2,224.59
Paving	0					0	0		0	0			0			0
Total	**0.9152**	**8.5816**	**14.578**	**0.0228**		**0.4185**	**0.4185**		**0.385**	**0.385**		**2,206.75**	**2,206.75**	**0.7137**		**2,224.59**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.061	0.0242	0.354	1.05E-03	0.1232	8.00E-04	0.124	0.0327	7.40E-04	0.0334		104.6784	104.6784	2.32E-03		104.7365
Total	**0.061**	**0.0242**	**0.354**	**1.05E-03**	**0.1232**	**8.00E-04**	**0.124**	**0.0327**	**7.40E-04**	**0.0334**		**104.6784**	**104.6784**	**2.32E-03**		**104.7365**

VMV 2025 NonRes - El Dorado-Mountain County County, Summer

VMV 2025 NonRes

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	75.00	1000sqft	1.72	75,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use -
Construction Phase -
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	PhaseEndDate	12/10/2025	11/12/2025
tblConstructionPhase	PhaseEndDate	11/12/2025	10/15/2025
tblConstructionPhase	PhaseEndDate	2/5/2025	1/8/2025
tblConstructionPhase	PhaseEndDate	11/26/2025	10/29/2025

tblConstructionPhase	PhaseEndDate	1/30/2025	1/2/2025
tblConstructionPhase	PhaseStartDate	11/27/2025	10/30/2025
tblConstructionPhase	PhaseStartDate	2/6/2025	1/9/2025
tblConstructionPhase	PhaseStartDate	1/31/2025	1/3/2025
tblConstructionPhase	PhaseStartDate	11/13/2025	10/16/2025
tblConstructionPhase	PhaseStartDate	1/29/2025	1/1/2025

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2025	104.4787	11.4391	13.3478	0.0268	5.8653	0.4196	6.2849	2.9711	0.3861	3.3572	0.0000	2,493.880	2,493.8802	0.5400	0.0000	2,502.245
Maximum	**104.4787**	**11.4391**	**13.3478**	**0.0268**	**5.8653**	**0.4196**	**6.2849**	**2.9711**	**0.3861**	**3.3572**	**0.0000**	**2,493.880**	**2,493.8802**	**0.5400**	**0.0000**	**2,502.245**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2025	1/2/2025	5	2	
2	Grading	Grading	1/3/2025	1/8/2025	5	4	
3	Building Construction	Building Construction	1/9/2025	10/15/2025	5	200	
4	Paving	Paving	10/16/2025	10/29/2025	5	10	
5	Architectural Coating	Architectural Coating	10/30/2025	11/12/2025	5	10	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37

Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	24.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0	5.7996	2.9537	0	2.9537			0			0
Off-Road	1.0103	10.594	6.4468	0.0172		0.4192	0.4192		0.3857	0.3857		1,665.89	1,665.89	0.5388		1,679.36
Total	**1.0103**	**10.594**	**6.4468**	**0.0172**	**5.7996**	**0.4192**	**6.2188**	**2.9537**	**0.3857**	**3.3394**		**1,665.89**	**1,665.89**	**0.5388**		**1,679.36**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0325	0.0129	0.1888	5.60E-04	0.0657	4.30E-04	0.0661	0.0174	3.90E-04	0.0178		55.8285	55.8285	1.24E-03		55.8595
Total	**0.0325**	**0.0129**	**0.1888**	**5.60E-04**	**0.0657**	**4.30E-04**	**0.0661**	**0.0174**	**3.90E-04**	**0.0178**		**55.8285**	**55.8285**	**1.24E-03**		**55.8595**

3.3 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0	4.9143	2.5256	0	2.5256			0			0
Off-Road	0.835	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205		1,364.70	1,364.70	0.4414		1,375.73

Total	**0.835**	**8.7341**	**5.3948**	**0.0141**	**4.9143**	**0.3484**	**5.2626**	**2.5256**	**0.3205**	**2.8461**		**1,364.70**	**1,364.70**	**0.4414**		**1,375.73**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0325	0.0129	0.1888	5.60E-04	0.0657	4.30E-04	0.0661	0.0174	3.90E-04	0.0178		55.8285	55.8285	1.24E-03		55.8595
Total	**0.0325**	**0.0129**	**0.1888**	**5.60E-04**	**0.0657**	**4.30E-04**	**0.0661**	**0.0174**	**3.90E-04**	**0.0178**		**55.8285**	**55.8285**	**1.24E-03**		**55.8595**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.15	2,002.15	0.3269		2,010.32
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**		**2,002.15**	**2,002.15**	**0.3269**		**2,010.32**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0287	0.9875	0.3421	3.10E-03	0.0808	1.95E-03	0.0827	0.0232	1.86E-03	0.0251		324.2423	324.2423	4.01E-03		324.3426
Worker	0.0976	0.0388	0.5664	1.68E-03	0.1972	1.28E-03	0.1984	0.0523	1.18E-03	0.0535		167.4854	167.4854	3.72E-03		167.5784
Total	**0.1262**	**1.0263**	**0.9085**	**4.78E-03**	**0.2779**	**3.23E-03**	**0.2811**	**0.0755**	**3.04E-03**	**0.0786**		**491.7277**	**491.7277**	**7.73E-03**		**491.921**

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276		1,297.81	1,297.81	0.4114		1,308.10
Paving	0					0	0		0	0			0			0
Total	**0.5732**	**5.3259**	**8.7951**	**0.0136**		**0.2465**	**0.2465**		**0.2276**	**0.2276**		**1,297.81**	**1,297.81**	**0.4114**		**1,308.10**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0529	0.021	0.3068	9.10E-04	0.1068	6.90E-04	0.1075	0.0283	6.40E-04	0.029		90.7213	90.7213	2.01E-03		90.7716
Total	**0.0529**	**0.021**	**0.3068**	**9.10E-04**	**0.1068**	**6.90E-04**	**0.1075**	**0.0283**	**6.40E-04**	**0.029**		**90.7213**	**90.7213**	**2.01E-03**		**90.7716**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	104.2875					0	0		0	0			0			0
Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**104.4584**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0203	8.08E-03	0.118	3.50E-04	0.0411	2.70E-04	0.0413	0.0109	2.50E-04	0.0111		34.8928	34.8928	7.70E-04		34.9122
Total	**0.0203**	**8.08E-03**	**0.118**	**3.50E-04**	**0.0411**	**2.70E-04**	**0.0413**	**0.0109**	**2.50E-04**	**0.0111**		**34.8928**	**34.8928**	**7.70E-04**		**34.9122**

VMV Vertical 2025 - El Dorado-Mountain County County, Summer

VMV Vertical 2025
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	65.00	Dwelling Unit	7.56	65,000.00	186
Single Family Housing	83.00	Dwelling Unit	28.96	149,400.00	237

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - Scaled durations to one year
Architectural Coating - VOC content updated per ECDAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	55.00	18.00
tblConstructionPhase	NumDays	740.00	242.00
tblLandUse	LotAcreage	4.06	7.56
tblLandUse	LotAcreage	26.95	28.96

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2025	223.8242	13.9108	18.3580	0.0365	0.7402	0.5343	1.2745	0.1987	0.5025	0.7013	0.0000	3,526.146	3,526.1465	0.6182	0.0000	3,541.602
Maximum	**223.8242**	**13.9108**	**18.3580**	**0.0365**	**0.7402**	**0.5343**	**1.2745**	**0.1987**	**0.5025**	**0.7013**	**0.0000**	**3,526.146**	**3,526.1465**	**0.6182**	**0.0000**	**3,541.602**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2025	12/4/2025	5	242	
2	Architectural Coating	Architectural Coating	12/5/2025	12/30/2025	5	18	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Building Construction	9	77.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963		2,556.47	2,556.47	0.601		2,571.50

Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0382	1.3167	0.4561	4.14E-03	0.1077	2.60E-03	0.1103	0.031	2.49E-03	0.0334		432.3231	432.3231	5.35E-03		432.4568
Worker	0.313	0.1244	1.8173	5.39E-03	0.6325	4.10E-03	0.6366	0.1678	3.78E-03	0.1716		537.3491	537.3491	0.0119		537.6474
Total	**0.3512**	**1.4411**	**2.2734**	**9.53E-03**	**0.7402**	**6.70E-03**	**0.7469**	**0.1987**	**6.27E-03**	**0.205**		**969.6722**	**969.6722**	**0.0173**		**970.1042**

3.3 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	223.5924					0	0		0	0			0			0
Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**223.7633**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.061	0.0242	0.354	1.05E-03	0.1232	8.00E-04	0.124	0.0327	7.40E-04	0.0334		104.6784	104.6784	2.32E-03		104.7365
Total	**0.061**	**0.0242**	**0.354**	**1.05E-03**	**0.1232**	**8.00E-04**	**0.124**	**0.0327**	**7.40E-04**	**0.0334**		**104.6784**	**104.6784**	**2.32E-03**		**104.7365**

VMV 2026 Intrack - El Dorado-Mountain County County, Summer

VMV 2026 Intrack

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	53.00	Dwelling Unit	18.49	95,400.00	152

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - assumed trenching duration is similar to site preparation
Off-road Equipment - per applicant
Grading - total acreage graded
Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	5/19/2027	3/11/2026
tblConstructionPhase	PhaseEndDate	3/25/2026	2/25/2026
tblConstructionPhase	PhaseEndDate	6/16/2027	4/8/2026
tblConstructionPhase	PhaseEndDate	2/11/2026	1/14/2026
tblConstructionPhase	PhaseStartDate	3/26/2026	2/26/2026
tblConstructionPhase	PhaseStartDate	2/12/2026	1/15/2026
tblConstructionPhase	PhaseStartDate	5/20/2027	3/12/2026

tblConstructionPhase	PhaseStartDate	1/29/2026	1/1/2026
tblGrading	AcresOfGrading	75.00	18.49
tblLandUse	LotAcreage	17.21	18.49
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2026	2.9783	27.9723	26.7697	0.0634	18.2141	1.1319	19.3018	9.9699	1.0414	10.9706	0.0000	6,142.7607	6,142.7607	1.9460	0.0000	6,191.4110
Maximum	**2.9783**	**27.9723**	**26.7697**	**0.0634**	**18.2141**	**1.1319**	**19.3018**	**9.9699**	**1.0414**	**10.9706**	**0.0000**	**6,142.7607**	**6,142.7607**	**1.9460**	**0.0000**	**6,191.4110**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2026	1/14/2026	5	10	
2	Grading	Grading	1/15/2026	2/25/2026	5	30	
3	Utilities	Trenching	2/26/2026	3/11/2026	5	10	
4	Paving	Paving	3/12/2026	4/8/2026	5	20	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utilities	Excavators	4	8.00	158	0.38
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Excavators	2	8.00	158	0.38
Utilities	Cranes	0	7.00	231	0.29
Utilities	Forklifts	0	8.00	89	0.20
Utilities	Generator Sets	0	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40

Utilities	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Utilities	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle Class	Vendor	Hauling Vehicle
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.4727	25.2339	17.9118	0.0381		1.0868	1.0868		0.9999	0.9999		3,689.10	3,689.10	1.1931		3,718.93
Total	**2.4727**	**25.2339**	**17.9118**	**0.0381**	**18.0663**	**1.0868**	**19.1531**	**9.9307**	**0.9999**	**10.9305**		**3,689.10**	**3,689.10**	**1.1931**		**3,718.93**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0693	0.0265	0.3947	1.21E-03	0.1479	9.20E-04	0.1488	0.0392	8.50E-04	0.0401		121.0313	121.0313	2.53E-03		121.0946
Total	**0.0693**	**0.0265**	**0.3947**	**1.21E-03**	**0.1479**	**9.20E-04**	**0.1488**	**0.0392**	**8.50E-04**	**0.0401**		**121.0313**	**121.0313**	**2.53E-03**		**121.0946**

3.3 Grading - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Fugitive Dust					6.6757	0	6.6757	3.3808	0	3.3808			0			0
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.28	6,008.28	1.9432		6,056.86
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**6.6757**	**1.1309**	**7.8066**	**3.3808**	**1.0404**	**4.4212**		**6,008.28**	**6,008.28**	**1.9432**		**6,056.86**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.077	0.0294	0.4386	1.35E-03	0.1643	1.03E-03	0.1653	0.0436	9.50E-04	0.0445		134.4792	134.4792	2.81E-03		134.5495
Total	**0.077**	**0.0294**	**0.4386**	**1.35E-03**	**0.1643**	**1.03E-03**	**0.1653**	**0.0436**	**9.50E-04**	**0.0445**		**134.4792**	**134.4792**	**2.81E-03**		**134.5495**

3.4 Utilities - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1313	8.647	16.0605	0.0334		0.3663	0.3663		0.337	0.337		3,228.66	3,228.66	1.0442		3,254.76
Total	**1.1313**	**8.647**	**16.0605**	**0.0334**		**0.3663**	**0.3663**		**0.337**	**0.337**		**3,228.66**	**3,228.66**	**1.0442**		**3,254.76**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0578	0.0221	0.3289	1.01E-03	0.1232	7.70E-04	0.124	0.0327	7.10E-04	0.0334		100.8594	100.8594	2.11E-03		100.9121
Total	**0.0578**	**0.0221**	**0.3289**	**1.01E-03**	**0.1232**	**7.70E-04**	**0.124**	**0.0327**	**7.10E-04**	**0.0334**		**100.8594**	**100.8594**	**2.11E-03**		**100.9121**

3.5 Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.578	0.0228		0.4185	0.4185		0.385	0.385		2,206.75	2,206.75	0.7137		2,224.59
Paving	0					0	0		0	0			0			0

Total	**0.9152**	**8.5816**	**14.578**	**0.0228**		**0.4185**	**0.4185**		**0.385**	**0.385**		**2,206.75**	**2,206.75**	**0.7137**		**2,224.59**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0578	0.0221	0.3289	1.01E-03	0.1232	7.70E-04	0.124	0.0327	7.10E-04	0.0334		100.8594	100.8594	2.11E-03		100.9121
Total	**0.0578**	**0.0221**	**0.3289**	**1.01E-03**	**0.1232**	**7.70E-04**	**0.124**	**0.0327**	**7.10E-04**	**0.0334**		**100.8594**	**100.8594**	**2.11E-03**		**100.9121**

VMV 2026 Vertical - El Dorado-Mountain County County, Summer

VMV 2026 Vertical

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	140.00	Dwelling Unit	16.29	140,000.00	400
Single Family Housing	108.00	Dwelling Unit	37.69	194,400.00	309

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - Scaled durations to one year
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	75.00	16.00
tblConstructionPhase	NumDays	1,110.00	244.00
tblConstructionPhase	PhaseEndDate	9/3/2031	12/30/2026

tblConstructionPhase	PhaseEndDate	2/5/2031	12/8/2026
tblConstructionPhase	PhaseStartDate	5/22/2031	12/9/2026
tblConstructionPhase	PhaseStartDate	11/5/2026	1/1/2026
tblLandUse	LotAcreage	8.75	16.29
tblLandUse	LotAcreage	35.06	37.69

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2026	392.6083	14.8382	19.9027	0.0434	1.3318	0.5388	1.8706	0.3573	0.5068	0.8641	0.0000	4,224.3714	4,224.3714	0.6292	0.0000	4,240.102
Maximum	**392.6083**	**14.8382**	**19.9027**	**0.0434**	**1.3318**	**0.5388**	**1.8706**	**0.3573**	**0.5068**	**0.8641**	**0.0000**	**4,224.3714**	**4,224.3714**	**0.6292**	**0.0000**	**4,240.102**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2026	12/8/2026	5	244	
2	Architectural Coating	Architectural Coating	12/9/2026	12/30/2026	5	16	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Building Construction	9	140.00	27.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963		2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0623	2.1625	0.7479	6.96E-03	0.1817	4.08E-03	0.1858	0.0522	3.90E-03	0.0561		726.5424	726.5424	8.61E-03		726.7578
Worker	0.539	0.206	3.0701	9.44E-03	1.1501	7.19E-03	1.1573	0.3051	6.62E-03	0.3117		941.3547	941.3547	0.0197		941.8467
Total	**0.6013**	**2.3685**	**3.818**	**0.0164**	**1.3318**	**0.0113**	**1.3431**	**0.3573**	**0.0105**	**0.3678**		**1,667.90**	**1,667.90**	**0.0283**		**1,668.60**

3.3 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	392.3296					0	0		0	0			0			0
Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**392.5004**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.1078	0.0412	0.614	1.89E-03	0.23	1.44E-03	0.2315	0.061	1.32E-03	0.0623		188.2709	188.2709	3.94E-03		188.3693
Total	**0.1078**	**0.0412**	**0.614**	**1.89E-03**	**0.23**	**1.44E-03**	**0.2315**	**0.061**	**1.32E-03**	**0.0623**		**188.2709**	**188.2709**	**3.94E-03**		**188.3693**

VMV 2027 Intrack - El Dorado-Mountain County County, Summer

VMV 2027 Intrack

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	82.00	Dwelling Unit	4.17	82,000.00	235

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - assumed trenching duration is similiar to site preparation
Off-road Equipment - per applicant
Grading - total acreage graded
Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	1/4/2028	1/26/2027
tblConstructionPhase	PhaseEndDate	2/16/2027	1/19/2027
tblConstructionPhase	PhaseEndDate	1/28/2028	2/19/2027
tblConstructionPhase	PhaseEndDate	2/4/2027	1/7/2027
tblConstructionPhase	PhaseStartDate	2/17/2027	1/20/2027
tblConstructionPhase	PhaseStartDate	2/5/2027	1/8/2027
tblConstructionPhase	PhaseStartDate	1/5/2028	1/27/2027

tblConstructionPhase	PhaseStartDate	1/29/2027	1/1/2027
tblGrading	AcresOfGrading	4.00	4.17
tblLandUse	LotAcreage	5.13	4.17
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	2.5380	25.2580	18.2785	0.0393	18.2141	1.0877	19.3018	9.9699	1.0007	10.9706	0.0000	3,806.0457	3,806.0457	1.1954	0.0000	3,835.9313
Maximum	**2.5380**	**25.2580**	**18.2785**	**0.0393**	**18.2141**	**1.0877**	**19.3018**	**9.9699**	**1.0007**	**10.9706**	**0.0000**	**3,806.0457**	**3,806.0457**	**1.1954**	**0.0000**	**3,835.9313**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2027	1/7/2027	5	5	
2	Grading	Grading	1/8/2027	1/19/2027	5	8	
3	Utilities	Trenching	1/20/2027	1/26/2027	5	5	
4	Paving	Paving	1/27/2027	2/19/2027	5	18	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utilities	Excavators	4	8.00	158	0.38
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Utilities	Cranes	0	7.00	231	0.29
Utilities	Forklifts	0	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Utilities	Tractors/Loaders/Backhoes	0	7.00	97	0.37

Utilities	Generator Sets	0	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Utilities	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle Class	Vendor Vehicle	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.4727	25.2339	17.9118	0.0381		1.0868	1.0868		0.9999	0.9999		3,689.10	3,689.10	1.1931		3,718.93
Total	**2.4727**	**25.2339**	**17.9118**	**0.0381**	**18.0663**	**1.0868**	**19.1531**	**9.9307**	**0.9999**	**10.9305**		**3,689.10**	**3,689.10**	**1.1931**		**3,718.93**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0653	0.0241	0.3667	1.17E-03	0.1479	8.70E-04	0.1487	0.0392	8.00E-04	0.04		116.942	116.942	2.29E-03		116.9993
Total	**0.0653**	**0.0241**	**0.3667**	**1.17E-03**	**0.1479**	**8.70E-04**	**0.1487**	**0.0392**	**8.00E-04**	**0.04**		**116.942**	**116.942**	**2.29E-03**		**116.9993**

3.3 Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Fugitive Dust					6.5749	0	6.5749	3.3699	0	3.3699			0			0
Off-Road	1.5227	15.3148	14.5402	0.0297		0.6236	0.6236		0.5737	0.5737		2,873.71	2,873.71	0.9294		2,896.94
Total	**1.5227**	**15.3148**	**14.5402**	**0.0297**	**6.5749**	**0.6236**	**7.1984**	**3.3699**	**0.5737**	**3.9436**		**2,873.71**	**2,873.71**	**0.9294**		**2,896.94**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0544	0.0201	0.3056	9.80E-04	0.1232	7.30E-04	0.124	0.0327	6.70E-04	0.0334		97.4517	97.4517	1.91E-03		97.4994
Total	**0.0544**	**0.0201**	**0.3056**	**9.80E-04**	**0.1232**	**7.30E-04**	**0.124**	**0.0327**	**6.70E-04**	**0.0334**		**97.4517**	**97.4517**	**1.91E-03**		**97.4994**

3.4 Utilities - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1313	8.647	16.0605	0.0334		0.3663	0.3663		0.337	0.337		3,228.66	3,228.66	1.0442		3,254.76
Total	**1.1313**	**8.647**	**16.0605**	**0.0334**		**0.3663**	**0.3663**		**0.337**	**0.337**		**3,228.66**	**3,228.66**	**1.0442**		**3,254.76**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0544	0.0201	0.3056	9.80E-04	0.1232	7.30E-04	0.124	0.0327	6.70E-04	0.0334		97.4517	97.4517	1.91E-03		97.4994
Total	**0.0544**	**0.0201**	**0.3056**	**9.80E-04**	**0.1232**	**7.30E-04**	**0.124**	**0.0327**	**6.70E-04**	**0.0334**		**97.4517**	**97.4517**	**1.91E-03**		**97.4994**

3.5 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8197	7.5321	12.1778	0.0189		0.3524	0.3524		0.3259	0.3259		1,805.39	1,805.39	0.5673		1,819.57
Paving	0					0	0		0	0			0			0

Total	**0.8197**	**7.5321**	**12.1778**	**0.0189**		**0.3524**	**0.3524**		**0.3259**	**0.3259**		**1,805.39**	**1,805.39**	**0.5673**		**1,819.57**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0726	0.0268	0.4075	1.30E-03	0.1643	9.70E-04	0.1653	0.0436	8.90E-04	0.0445		129.9356	129.9356	2.54E-03		129.9992
Total	**0.0726**	**0.0268**	**0.4075**	**1.30E-03**	**0.1643**	**9.70E-04**	**0.1653**	**0.0436**	**8.90E-04**	**0.0445**		**129.9356**	**129.9356**	**2.54E-03**		**129.9992**

VMV 2027 NonRes - El Dorado-Mountain County County, Summer

VMV 2027 NonRes

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - City; no demolition, building construction, and coatings phase

Grading - assumed entire site graded

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	1/19/2027	1/5/2027
tblConstructionPhase	PhaseEndDate	6/15/2027	1/12/2027
tblConstructionPhase	PhaseEndDate	1/15/2027	1/1/2027
tblConstructionPhase	PhaseStartDate	1/16/2027	1/2/2027
tblConstructionPhase	PhaseStartDate	6/9/2027	1/6/2027
tblConstructionPhase	PhaseStartDate	1/15/2027	1/1/2027

tblGrading	AcresOfGrading	0.75	1.00
tblGrading	AcresOfGrading	0.50	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	1.0393	10.6048	9.0600	0.0177	5.3351	0.4196	5.7547	2.9139	0.3860	3.2999	0.0000	1,717.859	1,717.8598	0.5398	0.0000	1,731.354
Maximum	**1.0393**	**10.6048**	**9.0600**	**0.0177**	**5.3351**	**0.4196**	**5.7547**	**2.9139**	**0.3860**	**3.2999**	**0.0000**	**1,717.859**	**1,717.8598**	**0.5398**	**0.0000**	**1,731.354**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2027	1/1/2027	5	1	
2	Grading	Grading	1/2/2027	1/5/2027	5	2	
3	Paving	Paving	1/6/2027	1/12/2027	5	5	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.2693	0	5.2693	2.8965	0	2.8965			0			0
Off-Road	1.0103	10.594	6.4468	0.0172		0.4192	0.4192		0.3857	0.3857		1,665.89	1,665.89	0.5388		1,679.36
Total	**1.0103**	**10.594**	**6.4468**	**0.0172**	**5.2693**	**0.4192**	**5.6886**	**2.8965**	**0.3857**	**3.2821**		**1,665.89**	**1,665.89**	**0.5388**		**1,679.36**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.029	0.0107	0.163	5.20E-04	0.0657	3.90E-04	0.0661	0.0174	3.60E-04	0.0178		51.9742	51.9742	1.02E-03		51.9997
Total	**0.029**	**0.0107**	**0.163**	**5.20E-04**	**0.0657**	**3.90E-04**	**0.0661**	**0.0174**	**3.60E-04**	**0.0178**		**51.9742**	**51.9742**	**1.02E-03**		**51.9997**

3.3 Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.0468	0	5.0468	2.5399	0	2.5399			0			0
Off-Road	0.835	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205		1,364.70	1,364.70	0.4414		1,375.73
Total	**0.835**	**8.7341**	**5.3948**	**0.0141**	**5.0468**	**0.3484**	**5.3952**	**2.5399**	**0.3205**	**2.8604**		**1,364.70**	**1,364.70**	**0.4414**		**1,375.73**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.029	0.0107	0.163	5.20E-04	0.0657	3.90E-04	0.0661	0.0174	3.60E-04	0.0178		51.9742	51.9742	1.02E-03		51.9997
Total	**0.029**	**0.0107**	**0.163**	**5.20E-04**	**0.0657**	**3.90E-04**	**0.0661**	**0.0174**	**3.60E-04**	**0.0178**		**51.9742**	**51.9742**	**1.02E-03**		**51.9997**

3.4 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276		1,297.81	1,297.81	0.4114		1,308.10
Paving	0					0	0		0	0			0			0
Total	**0.5732**	**5.3259**	**8.7951**	**0.0136**		**0.2465**	**0.2465**		**0.2276**	**0.2276**		**1,297.81**	**1,297.81**	**0.4114**		**1,308.10**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0472	0.0174	0.2648	8.50E-04	0.1068	6.30E-04	0.1074	0.0283	5.80E-04	0.0289		84.4581	84.4581	1.65E-03		84.4995
Total	**0.0472**	**0.0174**	**0.2648**	**8.50E-04**	**0.1068**	**6.30E-04**	**0.1074**	**0.0283**	**5.80E-04**	**0.0289**		**84.4581**	**84.4581**	**1.65E-03**		**84.4995**

VMV 2027 Vertical - El Dorado-Mountain County County, Summer

VMV 2027 Vertical

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	140.00	Dwelling Unit	16.29	140,000.00	400
Single Family Housing	126.00	Dwelling Unit	43.97	226,800.00	360

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - Scaled durations to one year
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	75.00	16.00
tblConstructionPhase	NumDays	1,110.00	244.00
tblConstructionPhase	PhaseEndDate	9/2/2032	12/30/2027
tblConstructionPhase	PhaseEndDate	2/5/2032	12/8/2027

tblConstructionPhase	PhaseStartDate	5/21/2032	12/9/2027
tblConstructionPhase	PhaseStartDate	11/5/2027	1/1/2027
tblLandUse	LotAcreage	8.75	16.29
tblLandUse	LotAcreage	40.91	43.97

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	430.6185	14.8493	19.8166	0.0437	1.3878	0.5386	1.9264	0.3723	0.5065	0.8788	0.0000	4,255.3376	4,255.3376	0.6281	0.0000	4,271.040
Maximum	**430.6185**	**14.8493**	**19.8166**	**0.0437**	**1.3878**	**0.5386**	**1.9264**	**0.3723**	**0.5065**	**0.8788**	**0.0000**	**4,255.3376**	**4,255.3376**	**0.6281**	**0.0000**	**4,271.040**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2027	12/8/2027	5	244	
2	Architectural Coating	Architectural Coating	12/9/2027	12/30/2027	5	16	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling
Building Construction	9	146.00	28.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	29.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963		2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0627	2.1841	0.7576	7.18E-03	0.1885	3.91E-03	0.1924	0.0542	3.74E-03	0.0579		750.3336	750.3336	8.61E-03		750.5489
Worker	0.5299	0.1956	2.9744	9.51E-03	1.1994	7.10E-03	1.2065	0.3181	6.53E-03	0.3247		948.5296	948.5296	0.0186		948.9939
Total	**0.5926**	**2.3796**	**3.7319**	**0.0167**	**1.3878**	**0.011**	**1.3988**	**0.3723**	**0.0103**	**0.3826**		**1,698.86**	**1,698.86**	**0.0272**		**1,699.54**

3.3 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	430.3424					0	0		0	0			0			0
Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**430.5132**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.1053	0.0388	0.5908	1.89E-03	0.2382	1.41E-03	0.2396	0.0632	1.30E-03	0.0645		188.4066	188.4066	3.69E-03		188.4988
Total	**0.1053**	**0.0388**	**0.5908**	**1.89E-03**	**0.2382**	**1.41E-03**	**0.2396**	**0.0632**	**1.30E-03**	**0.0645**		**188.4066**	**188.4066**	**3.69E-03**		**188.4988**

VMV 2028 Intrack - El Dorado-Mountain County County, Summer

VMV 2028 Intrack

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	66.00	Dwelling Unit	23.03	118,800.00	189

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - assumed trenching duration is similar to site preparation
Off-road Equipment - per applicant
Grading - total acreage graded
Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	8/31/2029	3/17/2028
tblConstructionPhase	PhaseEndDate	3/31/2028	3/3/2028
tblConstructionPhase	PhaseEndDate	9/28/2029	4/14/2028
tblConstructionPhase	PhaseEndDate	2/11/2028	1/14/2028
tblConstructionPhase	PhaseStartDate	4/1/2028	3/4/2028
tblConstructionPhase	PhaseStartDate	2/12/2028	1/15/2028
tblConstructionPhase	PhaseStartDate	9/1/2029	3/18/2028

tblConstructionPhase	PhaseStartDate	1/29/2028	1/1/2028
tblGrading	AcresOfGrading	87.50	23.03
tblLandUse	LotAcreage	21.43	23.03
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2028	2.9691	27.9673	26.7110	0.0633	18.2141	1.1318	19.3017	9.9699	1.0413	10.9705	0.0000	6,134.1892	6,134.1892	1.9455	0.0000	6,182.8270
Maximum	**2.9691**	**27.9673**	**26.7110**	**0.0633**	**18.2141**	**1.1318**	**19.3017**	**9.9699**	**1.0413**	**10.9705**	**0.0000**	**6,134.1892**	**6,134.1892**	**1.9455**	**0.0000**	**6,182.8270**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2028	1/14/2028	5	10	
2	Grading	Grading	1/15/2028	3/3/2028	5	35	
3	Utilities	Trenching	3/4/2028	3/17/2028	5	10	
4	Paving	Paving	3/18/2028	4/14/2028	5	20	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utilities	Excavators	4	8.00	158	0.38
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Excavators	2	8.00	158	0.38
Utilities	Cranes	0	7.00	231	0.29
Utilities	Forklifts	0	8.00	89	0.20
Utilities	Generator Sets	0	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40

Utilities	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Utilities	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.4727	25.2339	17.9118	0.0381		1.0868	1.0868		0.9999	0.9999		3,689.10	3,689.10	1.1931		3,718.93
Total	**2.4727**	**25.2339**	**17.9118**	**0.0381**	**18.0663**	**1.0868**	**19.1531**	**9.9307**	**0.9999**	**10.9305**		**3,689.10**	**3,689.10**	**1.1931**		**3,718.93**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0611	0.022	0.342	1.14E-03	0.1479	8.10E-04	0.1487	0.0392	7.50E-04	0.04		113.3169	113.3169	2.08E-03		113.369
Total	**0.0611**	**0.022**	**0.342**	**1.14E-03**	**0.1479**	**8.10E-04**	**0.1487**	**0.0392**	**7.50E-04**	**0.04**		**113.3169**	**113.3169**	**2.08E-03**		**113.369**

3.3 Grading - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Fugitive Dust					6.7199	0	6.7199	3.3856	0	3.3856			0			0
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.28	6,008.28	1.9432		6,056.86
Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**6.7199**	**1.1309**	**7.8508**	**3.3856**	**1.0404**	**4.426**		**6,008.28**	**6,008.28**	**1.9432**		**6,056.86**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0679	0.0244	0.3799	1.26E-03	0.1643	9.00E-04	0.1652	0.0436	8.30E-04	0.0444		125.9077	125.9077	2.31E-03		125.9656
Total	**0.0679**	**0.0244**	**0.3799**	**1.26E-03**	**0.1643**	**9.00E-04**	**0.1652**	**0.0436**	**8.30E-04**	**0.0444**		**125.9077**	**125.9077**	**2.31E-03**		**125.9656**

3.4 Utilities - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Off-Road	1.1313	8.647	16.0605	0.0334		0.3663	0.3663		0.337	0.337		3,228.66	3,228.66	1.0442		3,254.76
Total	**1.1313**	**8.647**	**16.0605**	**0.0334**		**0.3663**	**0.3663**		**0.337**	**0.337**		**3,228.66**	**3,228.66**	**1.0442**		**3,254.76**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0509	0.0183	0.285	9.50E-04	0.1232	6.80E-04	0.1239	0.0327	6.20E-04	0.0333		94.4308	94.4308	1.74E-03		94.4742
Total	**0.0509**	**0.0183**	**0.285**	**9.50E-04**	**0.1232**	**6.80E-04**	**0.1239**	**0.0327**	**6.20E-04**	**0.0333**		**94.4308**	**94.4308**	**1.74E-03**		**94.4742**

3.5 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Off-Road	0.9152	8.5816	14.578	0.0228		0.4185	0.4185		0.385	0.385		2,206.75	2,206.75	0.7137		2,224.59
Paving	0					0	0		0	0			0			0
Total	**0.9152**	**8.5816**	**14.578**	**0.0228**		**0.4185**	**0.4185**		**0.385**	**0.385**		**2,206.75**	**2,206.75**	**0.7137**		**2,224.59**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0509	0.0183	0.285	9.50E-04	0.1232	6.80E-04	0.1239	0.0327	6.20E-04	0.0333		94.4308	94.4308	1.74E-03		94.4742
Total	**0.0509**	**0.0183**	**0.285**	**9.50E-04**	**0.1232**	**6.80E-04**	**0.1239**	**0.0327**	**6.20E-04**	**0.0333**		**94.4308**	**94.4308**	**1.74E-03**		**94.4742**

VMV 2028 NonRes - El Dorado-Mountain County County, Summer

VMV 2028 NonRes

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
Other Asphalt Surfaces	5.00	Acre	5.00	217,800.00	0
User Defined Recreational	13.00	User Defined Unit	13.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2028
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - acreages from PD
Construction Phase - scaled durations to one year
Off-road Equipment - added equipment for vineyards
Grading -
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00

tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	300.00	205.00
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	10.00	7.00
tblConstructionPhase	PhaseEndDate	7/13/2029	12/29/2028
tblConstructionPhase	PhaseEndDate	5/18/2029	11/21/2028
tblConstructionPhase	PhaseEndDate	3/24/2028	2/8/2028
tblConstructionPhase	PhaseEndDate	6/15/2029	12/11/2028
tblConstructionPhase	PhaseEndDate	2/11/2028	1/11/2028
tblConstructionPhase	PhaseStartDate	6/16/2029	12/12/2028
tblConstructionPhase	PhaseStartDate	3/25/2028	2/9/2028
tblConstructionPhase	PhaseStartDate	2/12/2028	1/12/2028
tblConstructionPhase	PhaseStartDate	5/19/2029	11/22/2028
tblConstructionPhase	PhaseStartDate	1/29/2028	1/1/2028
tblLandUse	LotAcreage	0.00	13.00
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2028	16.6571	35.9433	32.0904	0.0755	18.2141	1.4764	19.3017	9.9699	1.3583	10.9705	0.0000	7,313.5682	7,313.5682	2.3116	0.0000	7,371.3579
Maximum	**16.6571**	**35.9433**	**32.0904**	**0.0755**	**18.2141**	**1.4764**	**19.3017**	**9.9699**	**1.3583**	**10.9705**	**0.0000**	**7,313.5682**	**7,313.5682**	**2.3116**	**0.0000**	**7,371.3579**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2028	1/11/2028	5	7	
2	Grading	Grading	1/12/2028	2/8/2028	5	20	
3	Building Construction	Building Construction	2/9/2028	11/21/2028	5	205	
4	Paving	Paving	11/22/2028	12/11/2028	5	14	
5	Architectural Coating	Architectural Coating	12/12/2028	12/29/2028	5	14	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Rubber Tired Loaders	1		203	0.36
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	95.00	37.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	19.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.4727	25.2339	17.9118	0.0381		1.0868	1.0868		0.9999	0.9999		3,689.10	3,689.10	1.1931		3,718.93
Total	**2.4727**	**25.2339**	**17.9118**	**0.0381**	**18.0663**	**1.0868**	**19.1531**	**9.9307**	**0.9999**	**10.9305**		**3,689.10**	**3,689.10**	**1.1931**		**3,718.93**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0611	0.022	0.342	1.14E-03	0.1479	8.10E-04	0.1487	0.0392	7.50E-04	0.04		113.3169	113.3169	2.08E-03		113.369
Total	**0.0611**	**0.022**	**0.342**	**1.14E-03**	**0.1479**	**8.10E-04**	**0.1487**	**0.0392**	**7.50E-04**	**0.04**		**113.3169**	**113.3169**	**2.08E-03**		**113.369**

3.3 Grading - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					14.6954	0	14.6954	6.9067	0	6.9067			0			0
Off-Road	3.6814	35.9092	31.5585	0.0737		1.4751	1.4751		1.3571	1.3571		7,137.30	7,137.30	2.3084		7,195.01
Total	**3.6814**	**35.9092**	**31.5585**	**0.0737**	**14.6954**	**1.4751**	**16.1705**	**6.9067**	**1.3571**	**8.2638**		**7,137.30**	**7,137.30**	**2.3084**		**7,195.01**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.095	0.0342	0.5319	1.77E-03	0.23	1.26E-03	0.2313	0.061	1.16E-03	0.0622		176.2708	176.2708	3.24E-03		176.3518
Total	**0.095**	**0.0342**	**0.5319**	**1.77E-03**	**0.23**	**1.26E-03**	**0.2313**	**0.061**	**1.16E-03**	**0.0622**		**176.2708**	**176.2708**	**3.24E-03**		**176.3518**

3.4 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963		2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0809	2.8181	0.9835	9.46E-03	0.2491	4.86E-03	0.2539	0.0716	4.65E-03	0.0763		987.7509	987.7509	0.011		988.0267
Worker	0.3224	0.116	1.8047	6.00E-03	0.7804	4.28E-03	0.7847	0.207	3.94E-03	0.2109		598.0616	598.0616	0.011		598.3365

Total	**0.4033**	**2.9341**	**2.7883**	**0.0155**	**1.0295**	**9.14E-03**	**1.0386**	**0.2786**	**8.59E-03**	**0.2872**		**1,585.81**	**1,585.81**	**0.022**		**1,586.36**

3.5 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.578	0.0228		0.4185	0.4185		0.385	0.385		2,206.75	2,206.75	0.7137		2,224.59
Paving	0.9357					0	0		0	0			0			0
Total	**1.8509**	**8.5816**	**14.578**	**0.0228**		**0.4185**	**0.4185**		**0.385**	**0.385**		**2,206.75**	**2,206.75**	**0.7137**		**2,224.59**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0509	0.0183	0.285	9.50E-04	0.1232	6.80E-04	0.1239	0.0327	6.20E-04	0.0333		94.4308	94.4308	1.74E-03		94.4742
Total	**0.0509**	**0.0183**	**0.285**	**9.50E-04**	**0.1232**	**6.80E-04**	**0.1239**	**0.0327**	**6.20E-04**	**0.0333**		**94.4308**	**94.4308**	**1.74E-03**		**94.4742**

3.6 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	16.4218					0	0		0	0			0			0
Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**16.5927**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0645	0.0232	0.361	1.20E-03	0.1561	8.60E-04	0.1569	0.0414	7.90E-04	0.0422		119.6123	119.6123	2.20E-03		119.6673
Total	**0.0645**	**0.0232**	**0.361**	**1.20E-03**	**0.1561**	**8.60E-04**	**0.1569**	**0.0414**	**7.90E-04**	**0.0422**		**119.6123**	**119.6123**	**2.20E-03**		**119.6673**

VMV 2028 Vertical - El Dorado-Mountain County County, Summer

VMV 2028 Vertical

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	145.00	Dwelling Unit	16.87	145,000.00	415
Apartments Low Rise	82.00	Dwelling Unit	4.17	82,000.00	235
Single Family Housing	43.00	Dwelling Unit	15.01	77,400.00	123

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage scaled from total acreage for buildout of land use

Construction Phase - Scaled durations to one year

Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00

tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	55.00	18.00
tblConstructionPhase	NumDays	740.00	242.00
tblConstructionPhase	PhaseEndDate	11/7/2031	12/29/2028
tblConstructionPhase	PhaseEndDate	6/6/2031	12/5/2028
tblConstructionPhase	PhaseStartDate	8/23/2031	12/6/2028
tblConstructionPhase	PhaseStartDate	8/5/2028	1/1/2028
tblLandUse	LotAcreage	9.06	16.87
tblLandUse	LotAcreage	5.13	4.17
tblLandUse	LotAcreage	13.96	15.01

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2028	317.7442	14.8970	20.2560	0.0457	1.6657	0.5394	2.2051	0.4462	0.5073	0.9535	0.0000	4,457.5315	4,457.5315	0.6303	0.0000	4,473.289
Maximum	**317.7442**	**14.8970**	**20.2560**	**0.0457**	**1.6657**	**0.5394**	**2.2051**	**0.4462**	**0.5073**	**0.9535**	**0.0000**	**4,457.5315**	**4,457.5315**	**0.6303**	**0.0000**	**4,473.289**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2028	12/5/2028	5	242	
2	Architectural Coating	Architectural Coating	12/6/2028	12/29/2028	5	18	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Building Construction	9	179.00	29.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	36.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Off-Road	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963		2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0634	2.2088	0.7709	7.41E-03	0.1952	3.81E-03	0.199	0.0561	3.64E-03	0.0598		774.1832	774.1832	8.64E-03		774.3993
Worker	0.6074	0.2185	3.4005	0.0113	1.4704	8.06E-03	1.4785	0.39	7.42E-03	0.3975		1,126.87	1,126.87	0.0207		1,127.39
Total	**0.6708**	**2.4273**	**4.1714**	**0.0187**	**1.6657**	**0.0119**	**1.6775**	**0.4462**	**0.0111**	**0.4572**		**1,901.06**	**1,901.06**	**0.0294**		**1,901.79**

3.3 Architectural Coating - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Archit. Coating	317.4512					0	0		0	0			0			0
Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**317.622**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.1222	0.0439	0.6839	2.27E-03	0.2957	1.62E-03	0.2974	0.0784	1.49E-03	0.0799		226.6339	226.6339	4.17E-03		226.7381
Total	**0.1222**	**0.0439**	**0.6839**	**2.27E-03**	**0.2957**	**1.62E-03**	**0.2974**	**0.0784**	**1.49E-03**	**0.0799**		**226.6339**	**226.6339**	**4.17E-03**		**226.7381**

VMV 2029 Intrack - El Dorado-Mountain County County, Summer

VMV 2029 Intrack

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	663.00	Dwelling Unit	231.36	1,193,400.00	1896

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - scaled durations to one year; assumed trenching duration is similar to site preparation
Off-road Equipment - per applicant
Grading - total acreage graded
Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	465.00	104.00
tblConstructionPhase	NumDays	330.00	74.00
tblConstructionPhase	NumDays	180.00	41.00
tblConstructionPhase	PhaseEndDate	6/10/2050	9/17/2029
tblConstructionPhase	PhaseEndDate	8/13/2032	7/20/2029
tblConstructionPhase	PhaseEndDate	9/15/2051	12/28/2029
tblConstructionPhase	PhaseEndDate	11/1/2030	2/26/2029

tblConstructionPhase	PhaseStartDate	8/14/2032	7/21/2029
tblConstructionPhase	PhaseStartDate	11/2/2030	2/27/2029
tblConstructionPhase	PhaseStartDate	6/11/2050	9/18/2029
tblConstructionPhase	PhaseStartDate	2/23/2030	1/1/2029
tblGrading	AcresOfGrading	260.00	231.36
tblLandUse	LotAcreage	215.26	231.36
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2029	2.9642	27.9652	26.6854	0.0633	18.2141	1.1317	19.3017	9.9699	1.0412	10.9704	0.0000	6,130.6283	6,130.6283	1.9453	0.0000	6,179.2609
Maximum	**2.9642**	**27.9652**	**26.6854**	**0.0633**	**18.2141**	**1.1317**	**19.3017**	**9.9699**	**1.0412**	**10.9704**	**0.0000**	**6,130.6283**	**6,130.6283**	**1.9453**	**0.0000**	**6,179.2609**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2029	2/26/2029	5	41	
2	Grading	Grading	2/27/2029	7/20/2029	5	104	
3	Utilities	Trenching	7/21/2029	9/17/2029	5	41	
4	Paving	Paving	9/18/2029	12/28/2029	5	74	

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utilities	Excavators	4	8.00	158	0.38
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Excavators	2	8.00	158	0.38
Utilities	Cranes	0	7.00	231	0.29
Utilities	Forklifts	0	8.00	89	0.20
Utilities	Generator Sets	0	8.00	84	0.74
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40

Utilities	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Utilities	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2029

Unmitigated Construction On-Site

Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.4727	25.2339	17.9118	0.0381		1.0868	1.0868		0.9999	0.9999		3,689.10	3,689.10	1.1931		3,718.93
Total	**2.4727**	**25.2339**	**17.9118**	**0.0381**	**18.0663**	**1.0868**	**19.1531**	**9.9307**	**0.9999**	**10.9305**		**3,689.10**	**3,689.10**	**1.1931**		**3,718.93**

Unmitigated Construction Off-Site

Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0567	0.02	0.3189	1.10E-03	0.1479	7.50E-04	0.1486	0.0392	6.90E-04	0.0399		110.1121	110.1121	1.89E-03		110.1595
Total	**0.0567**	**0.02**	**0.3189**	**1.10E-03**	**0.1479**	**7.50E-04**	**0.1486**	**0.0392**	**6.90E-04**	**0.0399**		**110.1121**	**110.1121**	**1.89E-03**		**110.1595**

3.3 Grading - 2029

Unmitigated Construction On-Site

Category	lb/day										lb/day					
Fugitive Dust					8.3813	0	8.3813	3.565	0	3.565			0			0
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.28	6,008.28	1.9432		6,056.86

Total	**2.9012**	**27.9429**	**26.3311**	**0.0621**	**8.3813**	**1.1309**	**9.5122**	**3.565**	**1.0404**	**4.6054**		**6,008.28**	**6,008.28**	**1.9432**		**6,056.86**

Unmitigated Construction Off-Site

Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0629	0.0223	0.3543	1.23E-03	0.1643	8.30E-04	0.1651	0.0436	7.70E-04	0.0444		122.3468	122.3468	2.10E-03		122.3994
Total	**0.0629**	**0.0223**	**0.3543**	**1.23E-03**	**0.1643**	**8.30E-04**	**0.1651**	**0.0436**	**7.70E-04**	**0.0444**		**122.3468**	**122.3468**	**2.10E-03**		**122.3994**

3.4 Utilities - 2029

Unmitigated Construction On-Site

Category	lb/day											lb/day				
Off-Road	1.1313	8.647	16.0605	0.0334		0.3663	0.3663		0.337	0.337		3,228.66	3,228.66	1.0442		3,254.76
Total	**1.1313**	**8.647**	**16.0605**	**0.0334**		**0.3663**	**0.3663**		**0.337**	**0.337**		**3,228.66**	**3,228.66**	**1.0442**		**3,254.76**

Unmitigated Construction Off-Site

Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0472	0.0167	0.2657	9.20E-04	0.1232	6.30E-04	0.1239	0.0327	5.80E-04	0.0333		91.7601	91.7601	1.58E-03		91.7996
Total	**0.0472**	**0.0167**	**0.2657**	**9.20E-04**	**0.1232**	**6.30E-04**	**0.1239**	**0.0327**	**5.80E-04**	**0.0333**		**91.7601**	**91.7601**	**1.58E-03**		**91.7996**

3.5 Paving - 2029

Unmitigated Construction On-Site

Category	lb/day											lb/day				
Off-Road	0.9152	8.5816	14.578	0.0228		0.4185	0.4185		0.385	0.385		2,206.75	2,206.75	0.7137		2,224.59
Paving	0					0	0		0	0			0			0
Total	**0.9152**	**8.5816**	**14.578**	**0.0228**		**0.4185**	**0.4185**		**0.385**	**0.385**		**2,206.75**	**2,206.75**	**0.7137**		**2,224.59**

Unmitigated Construction Off-Site

Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0472	0.0167	0.2657	9.20E-04	0.1232	6.30E-04	0.1239	0.0327	5.80E-04	0.0333		91.7601	91.7601	1.58E-03		91.7996
Total	**0.0472**	**0.0167**	**0.2657**	**9.20E-04**	**0.1232**	**6.30E-04**	**0.1239**	**0.0327**	**5.80E-04**	**0.0333**		**91.7601**	**91.7601**	**1.58E-03**		**91.7996**

VMV 2029 NonRes - El Dorado-Mountain County County, Summer

VMV 2029 NonRes

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	50.00	1000sqft	1.15	50,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2029
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use -
Construction Phase - no demolition phase
Architectural Coating - updated VOC content per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	PhaseEndDate	12/10/2029	11/12/2029
tblConstructionPhase	PhaseEndDate	11/12/2029	10/15/2029
tblConstructionPhase	PhaseEndDate	2/5/2029	1/8/2029
tblConstructionPhase	PhaseEndDate	11/26/2029	10/29/2029

tblConstructionPhase	PhaseEndDate	1/30/2029	1/2/2029
tblConstructionPhase	PhaseStartDate	11/27/2029	10/30/2029
tblConstructionPhase	PhaseStartDate	2/6/2029	1/9/2029
tblConstructionPhase	PhaseStartDate	1/31/2029	1/3/2029
tblConstructionPhase	PhaseStartDate	11/13/2029	10/16/2029
tblConstructionPhase	PhaseStartDate	1/27/2029	1/1/2029

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2029	69.7053	11.0255	12.9320	0.0251	5.8653	0.4196	6.2849	2.9711	0.3860	3.3571	0.0000	2,312.871	2,312.8719	0.5396	0.0000	2,321.143
Maximum	**69.7053**	**11.0255**	**12.9320**	**0.0251**	**5.8653**	**0.4196**	**6.2849**	**2.9711**	**0.3860**	**3.3571**	**0.0000**	**2,312.871**	**2,312.8719**	**0.5396**	**0.0000**	**2,321.143**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2029	1/2/2029	5	2	
2	Grading	Grading	1/3/2029	1/8/2029	5	4	
3	Building Construction	Building Construction	1/9/2029	10/15/2029	5	200	
4	Paving	Paving	10/16/2029	10/29/2029	5	10	
5	Architectural Coating	Architectural Coating	10/30/2029	11/12/2029	5	10	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Site Preparation	Graders	1	8.00	187	0.41
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40

Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	16.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0	5.7996	2.9537	0	2.9537			0			0
Off-Road	1.0103	10.594	6.4468	0.0172		0.4192	0.4192		0.3857	0.3857		1,665.89	1,665.89	0.5388		1,679.36
Total	**1.0103**	**10.594**	**6.4468**	**0.0172**	**5.7996**	**0.4192**	**6.2188**	**2.9537**	**0.3857**	**3.3394**		**1,665.89**	**1,665.89**	**0.5388**		**1,679.36**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0252	8.91E-03	0.1417	4.90E-04	0.0657	3.30E-04	0.0661	0.0174	3.10E-04	0.0177		48.9387	48.9387	8.40E-04		48.9598
Total	**0.0252**	**8.91E-03**	**0.1417**	**4.90E-04**	**0.0657**	**3.30E-04**	**0.0661**	**0.0174**	**3.10E-04**	**0.0177**		**48.9387**	**48.9387**	**8.40E-04**		**48.9598**

3.3 Grading - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0	4.9143	2.5256	0	2.5256			0			0
Off-Road	0.835	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205		1,364.70	1,364.70	0.4414		1,375.73
Total	**0.835**	**8.7341**	**5.3948**	**0.0141**	**4.9143**	**0.3484**	**5.2626**	**2.5256**	**0.3205**	**2.8461**		**1,364.70**	**1,364.70**	**0.4414**		**1,375.73**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0252	8.91E-03	0.1417	4.90E-04	0.0657	3.30E-04	0.0661	0.0174	3.10E-04	0.0177		48.9387	48.9387	8.40E-04		48.9598
Total	**0.0252**	**8.91E-03**	**0.1417**	**4.90E-04**	**0.0657**	**3.30E-04**	**0.0661**	**0.0174**	**3.10E-04**	**0.0177**		**48.9387**	**48.9387**	**8.40E-04**		**48.9598**

3.4 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.15	2,002.15	0.3269		2,010.32
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**		**2,002.15**	**2,002.15**	**0.3269**		**2,010.32**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0171	0.5949	0.2092	2.04E-03	0.0539	9.60E-04	0.0548	0.0155	9.20E-04	0.0164		212.842	212.842	2.30E-03		212.8996
Worker	0.0504	0.0178	0.2834	9.80E-04	0.1314	6.70E-04	0.1321	0.0349	6.10E-04	0.0355		97.8775	97.8775	1.68E-03		97.9195
Total	**0.0674**	**0.6127**	**0.4927**	**3.02E-03**	**0.1853**	**1.63E-03**	**0.1869**	**0.0503**	**1.53E-03**	**0.0519**		**310.7195**	**310.7195**	**3.98E-03**		**310.8191**

3.5 Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276		1,297.81	1,297.81	0.4114		1,308.10
Paving	0					0	0		0	0			0			0
Total	**0.5732**	**5.3259**	**8.7951**	**0.0136**		**0.2465**	**0.2465**		**0.2276**	**0.2276**		**1,297.81**	**1,297.81**	**0.4114**		**1,308.10**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0409	0.0145	0.2303	8.00E-04	0.1068	5.40E-04	0.1073	0.0283	5.00E-04	0.0288		79.5254	79.5254	1.37E-03		79.5596
Total	**0.0409**	**0.0145**	**0.2303**	**8.00E-04**	**0.1068**	**5.40E-04**	**0.1073**	**0.0283**	**5.00E-04**	**0.0288**		**79.5254**	**79.5254**	**1.37E-03**		**79.5596**

3.6 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.525					0	0		0	0			0			0
Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**69.6959**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	9.44E-03	3.34E-03	0.0531	1.80E-04	0.0246	1.30E-04	0.0248	6.54E-03	1.20E-04	6.65E-03		18.352	18.352	3.20E-04		18.3599
Total	**9.44E-03**	**3.34E-03**	**0.0531**	**1.80E-04**	**0.0246**	**1.30E-04**	**0.0248**	**6.54E-03**	**1.20E-04**	**6.65E-03**		**18.352**	**18.352**	**3.20E-04**		**18.3599**

VMV 2029 Vertical - El Dorado-Mountain County County, Summer

VMV 2029 Vertical

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	33.00	Dwelling Unit	11.52	59,400.00	94

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage scaled from total acreage for buildout of land use

Construction Phase - Scaled durations to one year

Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	20.00	16.00

tblConstructionPhase	NumDays	300.00	244.00
tblConstructionPhase	PhaseEndDate	7/12/2030	12/28/2029
tblConstructionPhase	PhaseEndDate	5/17/2030	12/6/2029
tblConstructionPhase	PhaseStartDate	6/15/2030	12/7/2029
tblConstructionPhase	PhaseStartDate	3/24/2029	1/1/2029
tblLandUse	LotAcreage	10.71	11.52

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2029	69.8673	12.7805	16.4018	0.0287	0.1255	0.5285	0.6541	0.0339	0.4972	0.5311	0.0000	2,736.3035	2,736.3035	0.6034	0.0000	2,751.387
Maximum	**69.8673**	**12.7805**	**16.4018**	**0.0287**	**0.1255**	**0.5285**	**0.6541**	**0.0339**	**0.4972**	**0.5311**	**0.0000**	**2,736.3035**	**2,736.3035**	**0.6034**	**0.0000**	**2,751.387**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2029	12/6/2029	5	244	
2	Architectural Coating	Architectural Coating	12/7/2029	12/28/2029	5	16	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling
Building Construction	9	12.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.027		0.5276	0.5276		0.4963	0.4963		2,556.47	2,556.47	0.601		2,571.50
Total	**1.3674**	**12.4697**	**16.0847**	**0.027**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.47**	**2,556.47**	**0.601**		**2,571.50**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	8.53E-03	0.2975	0.1046	1.02E-03	0.0269	4.80E-04	0.0274	7.74E-03	4.60E-04	8.20E-03		106.421	106.421	1.15E-03		106.4498
Worker	0.0378	0.0134	0.2126	7.40E-04	0.0986	5.00E-04	0.0991	0.0262	4.60E-04	0.0266		73.4081	73.4081	1.26E-03		73.4396
Total	**0.0463**	**0.3108**	**0.3172**	**1.76E-03**	**0.1255**	**9.80E-04**	**0.1265**	**0.0339**	**9.20E-04**	**0.0348**		**179.8291**	**179.8291**	**2.41E-03**		**179.8895**

3.3 Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.6901					0	0		0	0			0			0
Off-Road	0.1709	1.1455	1.8091	2.97E-03		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**69.861**	**1.1455**	**1.8091**	**2.97E-03**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	6.29E-03	2.23E-03	0.0354	1.20E-04	0.0164	8.00E-05	0.0165	4.36E-03	8.00E-05	4.43E-03		12.2347	12.2347	2.10E-04		12.2399
Total	**6.29E-03**	**2.23E-03**	**0.0354**	**1.20E-04**	**0.0164**	**8.00E-05**	**0.0165**	**4.36E-03**	**8.00E-05**	**4.43E-03**		**12.2347**	**12.2347**	**2.10E-04**		**12.2399**

VMV 2030 Intrack - El Dorado-Mountain County County, Summer

VMV 2030 Intrack

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	235.00	Dwelling Unit	11.94	235,000.00	672
Single Family Housing	34.00	Dwelling Unit	11.86	61,200.00	97

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - assumed trenching duration is similiar to site preparation
Off-road Equipment - per applicant
Grading - total acreage graded
Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	9/1/2031	3/18/2030
tblConstructionPhase	PhaseEndDate	4/1/2030	3/4/2030
tblConstructionPhase	PhaseEndDate	9/29/2031	4/15/2030
tblConstructionPhase	PhaseEndDate	2/11/2030	1/14/2030
tblConstructionPhase	PhaseStartDate	4/2/2030	3/5/2030
tblConstructionPhase	PhaseStartDate	2/12/2030	1/15/2030

tblConstructionPhase	PhaseStartDate	9/2/2031	3/19/2030
tblConstructionPhase	PhaseStartDate	1/29/2030	1/1/2030
tblGrading	AcresOfGrading	87.50	23.81
tblLandUse	LotAcreage	14.69	11.94
tblLandUse	LotAcreage	11.04	11.86
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	3.3384	13.8664	23.3543	0.0711	18.2141	0.4887	18.6515	9.9699	0.4886	10.4072	0.0000	7,332.3191	7,332.3191	0.2934	0.0000	7,339.6546
Maximum	**3.3384**	**13.8664**	**23.3543**	**0.0711**	**18.2141**	**0.4887**	**18.6515**	**9.9699**	**0.4886**	**10.4072**	**0.0000**	**7,332.3191**	**7,332.3191**	**0.2934**	**0.0000**	**7,339.6546**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2030	1/14/2030	5	10	
2	Grading	Grading	1/15/2030	3/4/2030	5	35	
3	Utilities	Trenching	3/5/2030	3/18/2030	5	10	
4	Paving	Paving	3/19/2030	4/15/2030	5	20	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utilities	Excavators	4	8.00	158	0.38
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Excavators	2	8.00	158	0.38
Utilities	Cranes	0	7.00	231	0.29
Utilities	Forklifts	0	8.00	89	0.20
Utilities	Generator Sets	0	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42

Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Utilities	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Utilities	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.4399	13.668	16.2918	0.0466		0.4367	0.4367		0.4367	0.4367		4,409.75	4,409.75	0.2176		4,415.19
Total	**2.4399**	**13.668**	**16.2918**	**0.0466**	**18.0663**	**0.4367**	**18.5029**	**9.9307**	**0.4367**	**10.3673**		**4,409.75**	**4,409.75**	**0.2176**		**4,415.19**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0519	0.0182	0.2974	1.08E-03	0.1479	7.00E-04	0.1486	0.0392	6.40E-04	0.0399		107.2895	107.2895	1.72E-03		107.3325
Total	**0.0519**	**0.0182**	**0.2974**	**1.08E-03**	**0.1479**	**7.00E-04**	**0.1486**	**0.0392**	**6.40E-04**	**0.0399**		**107.2895**	**107.2895**	**1.72E-03**		**107.3325**

3.3 Grading - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7435	0	6.7435	3.3881	0	3.3881			0			0
Off-Road	3.2807	13.8462	23.0239	0.0699		0.4879	0.4879		0.4879	0.4879		7,213.11	7,213.11	0.2915		7,220.40
Total	**3.2807**	**13.8462**	**23.0239**	**0.0699**	**6.7435**	**0.4879**	**7.2315**	**3.3881**	**0.4879**	**3.8761**		**7,213.11**	**7,213.11**	**0.2915**		**7,220.40**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0577	0.0203	0.3304	1.20E-03	0.1643	7.70E-04	0.1651	0.0436	7.10E-04	0.0443		119.2106	119.2106	1.91E-03		119.2583
Total	**0.0577**	**0.0203**	**0.3304**	**1.20E-03**	**0.1643**	**7.70E-04**	**0.1651**	**0.0436**	**7.10E-04**	**0.0443**		**119.2106**	**119.2106**	**1.91E-03**		**119.2583**

3.4 Utilities - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4508	3.9318	17.2598	0.0411		0.1549	0.1549		0.1549	0.1549		3,891.48	3,891.48	0.1275		3,894.66
Total	**1.4508**	**3.9318**	**17.2598**	**0.0411**		**0.1549**	**0.1549**		**0.1549**	**0.1549**		**3,891.48**	**3,891.48**	**0.1275**		**3,894.66**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0433	0.0152	0.2478	9.00E-04	0.1232	5.80E-04	0.1238	0.0327	5.30E-04	0.0332		89.4079	89.4079	1.43E-03		89.4438
Total	**0.0433**	**0.0152**	**0.2478**	**9.00E-04**	**0.1232**	**5.80E-04**	**0.1238**	**0.0327**	**5.30E-04**	**0.0332**		**89.4079**	**89.4079**	**1.43E-03**		**89.4438**

3.5 Paving - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3845	7.1202	15.8495	0.0281		0.3306	0.3306		0.3306	0.3306		2,656.52	2,656.52	0.1245		2,659.63
Paving	0					0	0		0	0			0			0

Total	**1.3845**	**7.1202**	**15.8495**	**0.0281**		**0.3306**	**0.3306**		**0.3306**	**0.3306**		**2,656.52**	**2,656.52**	**0.1245**		**2,659.63**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0433	0.0152	0.2478	9.00E-04	0.1232	5.80E-04	0.1238	0.0327	5.30E-04	0.0332		89.4079	89.4079	1.43E-03		89.4438
Total	**0.0433**	**0.0152**	**0.2478**	**9.00E-04**	**0.1232**	**5.80E-04**	**0.1238**	**0.0327**	**5.30E-04**	**0.0332**		**89.4079**	**89.4079**	**1.43E-03**		**89.4438**

VMV 2030 NonRes - El Dorado-Mountain County County, Summer

VMV 2030 NonRes

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	10.00	1000sqft	0.23	10,000.00	0
General Office Building	8.00	1000sqft	0.18	8,000.00	0
Other Asphalt Surfaces	4.50	Acre	4.50	196,020.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - acrege per PD
Construction Phase - scaled durations to one year
Trips and VMT -
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	18.00	17.00
tblConstructionPhase	NumDays	230.00	214.00

tblConstructionPhase	NumDays	18.00	17.00
tblConstructionPhase	PhaseEndDate	8/13/2031	12/31/2030
tblConstructionPhase	PhaseEndDate	6/24/2031	11/13/2030
tblConstructionPhase	PhaseEndDate	8/6/2030	1/17/2030
tblConstructionPhase	PhaseEndDate	7/18/2031	12/6/2030
tblConstructionPhase	PhaseEndDate	7/25/2030	1/7/2030
tblConstructionPhase	PhaseStartDate	7/19/2031	12/7/2030
tblConstructionPhase	PhaseStartDate	8/7/2030	1/18/2030
tblConstructionPhase	PhaseStartDate	7/26/2030	1/8/2030
tblConstructionPhase	PhaseStartDate	6/25/2031	11/14/2030
tblConstructionPhase	PhaseStartDate	7/19/2030	1/1/2030

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	19.7155	13.6862	18.5172	0.0476	18.2141	0.4374	18.6515	9.9699	0.4373	10.4072	0.0000	4,517.0432	4,517.0432	0.2193	0.0000	4,522.5261
Maximum	**19.7155**	**13.6862**	**18.5172**	**0.0476**	**18.2141**	**0.4374**	**18.6515**	**9.9699**	**0.4373**	**10.4072**	**0.0000**	**4,517.0432**	**4,517.0432**	**0.2193**	**0.0000**	**4,522.5261**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2030	1/7/2030	5	5	
2	Grading	Grading	1/8/2030	1/17/2030	5	8	
3	Building Construction	Building Construction	1/18/2030	11/13/2030	5	214	
4	Paving	Paving	11/14/2030	12/6/2030	5	17	
5	Architectural Coating	Architectural Coating	12/7/2030	12/31/2030	5	17	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38

Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	88.00	35.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.4399	13.668	16.2918	0.0466		0.4367	0.4367		0.4367	0.4367		4,409.75	4,409.75	0.2176		4,415.19
Total	**2.4399**	**13.668**	**16.2918**	**0.0466**	**18.0663**	**0.4367**	**18.5029**	**9.9307**	**0.4367**	**10.3673**		**4,409.75**	**4,409.75**	**0.2176**		**4,415.19**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0519	0.0182	0.2974	1.08E-03	0.1479	7.00E-04	0.1486	0.0392	6.40E-04	0.0399		107.2895	107.2895	1.72E-03		107.3325
Total	**0.0519**	**0.0182**	**0.2974**	**1.08E-03**	**0.1479**	**7.00E-04**	**0.1486**	**0.0392**	**6.40E-04**	**0.0399**		**107.2895**	**107.2895**	**1.72E-03**		**107.3325**

3.3 Grading - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0	6.5523	3.3675	0	3.3675			0			0
Off-Road	1.6179	7.7501	14.4518	0.0363		0.234	0.234		0.234	0.234		3,439.72	3,439.72	0.1437		3,443.31
Total	**1.6179**	**7.7501**	**14.4518**	**0.0363**	**6.5523**	**0.234**	**6.7864**	**3.3675**	**0.234**	**3.6015**		**3,439.72**	**3,439.72**	**0.1437**		**3,443.31**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0433	0.0152	0.2478	9.00E-04	0.1232	5.80E-04	0.1238	0.0327	5.30E-04	0.0332		89.4079	89.4079	1.43E-03		89.4438
Total	**0.0433**	**0.0152**	**0.2478**	**9.00E-04**	**0.1232**	**5.80E-04**	**0.1238**	**0.0327**	**5.30E-04**	**0.0332**		**89.4079**	**89.4079**	**1.43E-03**		**89.4438**

3.4 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.157	0.031		0.1481	0.1481		0.1481	0.1481		2,897.55	2,897.55	0.1162		2,900.45
Total	**1.3091**	**7.9346**	**16.157**	**0.031**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.55**	**2,897.55**	**0.1162**		**2,900.45**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0733	2.5494	0.9064	8.89E-03	0.2356	3.90E-03	0.2395	0.0677	3.73E-03	0.0715		928.414	928.414	9.86E-03		928.6605
Worker	0.2539	0.0892	1.4539	5.26E-03	0.7229	3.40E-03	0.7263	0.1918	3.13E-03	0.1949		524.5264	524.5264	8.41E-03		524.7366
Total	**0.3272**	**2.6386**	**2.3602**	**0.0142**	**0.9585**	**7.30E-03**	**0.9658**	**0.2595**	**6.86E-03**	**0.2664**		**1,452.94**	**1,452.94**	**0.0183**		**1,453.40**

3.5 Paving - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1543	6.2343	13.0935	0.023		0.2528	0.2528		0.2528	0.2528		2,154.26	2,154.26	0.1035		2,156.85

Paving	0.6935					0	0		0	0			0			0
Total	**1.8478**	**6.2343**	**13.0935**	**0.023**		**0.2528**	**0.2528**		**0.2528**	**0.2528**		**2,154.26**	**2,154.26**	**0.1035**		**2,156.85**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0577	0.0203	0.3304	1.20E-03	0.1643	7.70E-04	0.1651	0.0436	7.10E-04	0.0443		119.2106	119.2106	1.91E-03		119.2583
Total	**0.0577**	**0.0203**	**0.3304**	**1.20E-03**	**0.1643**	**7.70E-04**	**0.1651**	**0.0436**	**7.10E-04**	**0.0443**		**119.2106**	**119.2106**	**1.91E-03**		**119.2583**

3.6 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.5328					0	0		0	0			0			0
Off-Road	0.1308	0.8563	1.7977	2.97E-03		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**19.6636**	**0.8563**	**1.7977**	**2.97E-03**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0519	0.0182	0.2974	1.08E-03	0.1479	7.00E-04	0.1486	0.0392	6.40E-04	0.0399		107.2895	107.2895	1.72E-03		107.3325
Total	**0.0519**	**0.0182**	**0.2974**	**1.08E-03**	**0.1479**	**7.00E-04**	**0.1486**	**0.0392**	**6.40E-04**	**0.0399**		**107.2895**	**107.2895**	**1.72E-03**		**107.3325**

VMV 2030 Vertical - El Dorado-Mountain County County, Summer

VMV 2030 Vertical

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	193.00	Dwelling Unit	67.35	347,400.00	552

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage scaled from total acreage for buildout of land use

Construction Phase - Scaled durations to one year

Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	75.00	16.00

tblConstructionPhase	NumDays	1,110.00	244.00
tblConstructionPhase	PhaseEndDate	9/3/2035	12/30/2030
tblConstructionPhase	PhaseEndDate	2/5/2035	12/6/2030
tblConstructionPhase	PhaseStartDate	5/22/2035	12/7/2030
tblConstructionPhase	PhaseStartDate	11/5/2030	1/1/2030
tblLandUse	LotAcreage	62.66	67.35

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	407.7528	9.5342	17.8408	0.0404	0.7082	0.1532	0.8614	0.1910	0.1528	0.3438	0.0000	3,865.8716	3,865.8716	0.1288	0.0000	3,869.0904
Maximum	**407.7528**	**9.5342**	**17.8408**	**0.0404**	**0.7082**	**0.1532**	**0.8614**	**0.1910**	**0.1528**	**0.3438**	**0.0000**	**3,865.8716**	**3,865.8716**	**0.1288**	**0.0000**	**3,869.0904**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2030	12/6/2030	5	244	
2	Architectural Coating	Architectural Coating	12/7/2030	12/30/2030	5	16	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Building Construction	9	69.00	21.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.157	0.031		0.1481	0.1481		0.1481	0.1481		2,897.55	2,897.55	0.1162		2,900.45
Total	**1.3091**	**7.9346**	**16.157**	**0.031**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.55**	**2,897.55**	**0.1162**		**2,900.45**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.044	1.5296	0.5438	5.33E-03	0.1414	2.34E-03	0.1437	0.0406	2.24E-03	0.0429		557.0484	557.0484	5.92E-03		557.1963
Worker	0.1991	0.0699	1.14	4.12E-03	0.5668	2.67E-03	0.5695	0.1504	2.45E-03	0.1528		411.2764	411.2764	6.59E-03		411.4412
Total	**0.243**	**1.5996**	**1.6838**	**9.45E-03**	**0.7082**	**5.01E-03**	**0.7132**	**0.191**	**4.69E-03**	**0.1957**		**968.3248**	**968.3248**	**0.0125**		**968.6376**

3.3 Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	407.5816					0	0		0	0			0			0
Off-Road	0.1308	0.8563	1.7977	2.97E-03		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**407.7124**	**0.8563**	**1.7977**	**2.97E-03**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0404	0.0142	0.2313	8.40E-04	0.115	5.40E-04	0.1156	0.0305	5.00E-04	0.031		83.4474	83.4474	1.34E-03		83.4808
Total	**0.0404**	**0.0142**	**0.2313**	**8.40E-04**	**0.115**	**5.40E-04**	**0.1156**	**0.0305**	**5.00E-04**	**0.031**		**83.4474**	**83.4474**	**1.34E-03**		**83.4808**

VMV 2031 Intrack - El Dorado-Mountain County County, Summer

VMV 2031 Intrack

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	143.00	Dwelling Unit	16.64	143,000.00	409
Apartments Low Rise	25.00	Dwelling Unit	1.27	25,000.00	72

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - assumed trenching duration is similiar to site preparation
Off-road Equipment - per applicant
Grading - total acreage graded
Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	5/18/2032	3/11/2031
tblConstructionPhase	PhaseEndDate	3/25/2031	2/25/2031
tblConstructionPhase	PhaseEndDate	6/15/2032	4/8/2031
tblConstructionPhase	PhaseEndDate	2/11/2031	1/14/2031
tblConstructionPhase	PhaseStartDate	3/26/2031	2/26/2031

tblConstructionPhase	PhaseStartDate	2/12/2031	1/15/2031
tblConstructionPhase	PhaseStartDate	5/19/2032	3/12/2031
tblConstructionPhase	PhaseStartDate	1/29/2031	1/1/2031
tblGrading	AcresOfGrading	75.00	17.91
tblLandUse	LotAcreage	8.94	16.64
tblLandUse	LotAcreage	1.56	1.27
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2031	3.3329	13.8646	23.3320	0.0711	18.2141	0.4887	18.6514	9.9699	0.4886	10.4072	0.0000	7,329.5746	7,329.5746	0.2932	0.0000	7,336.9057
Maximum	**3.3329**	**13.8646**	**23.3320**	**0.0711**	**18.2141**	**0.4887**	**18.6514**	**9.9699**	**0.4886**	**10.4072**	**0.0000**	**7,329.5746**	**7,329.5746**	**0.2932**	**0.0000**	**7,336.9057**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2031	1/14/2031	5	10	
2	Grading	Grading	1/15/2031	2/25/2031	5	30	
3	Utilities	Trenching	2/26/2031	3/11/2031	5	10	
4	Paving	Paving	3/12/2031	4/8/2031	5	20	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utilities	Excavators	4	8.00	158	0.38
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Excavators	2	8.00	158	0.38
Utilities	Cranes	0	7.00	231	0.29
Utilities	Forklifts	0	8.00	89	0.20
Utilities	Generator Sets	0	8.00	84	0.74

Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Utilities	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Utilities	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.4399	13.668	16.2918	0.0466		0.4367	0.4367		0.4367	0.4367		4,409.75	4,409.75	0.2176		4,415.19
Total	**2.4399**	**13.668**	**16.2918**	**0.0466**	**18.0663**	**0.4367**	**18.5029**	**9.9307**	**0.4367**	**10.3673**		**4,409.75**	**4,409.75**	**0.2176**		**4,415.19**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.047	0.0166	0.2773	1.05E-03	0.1479	6.40E-04	0.1485	0.0392	5.90E-04	0.0398		104.8194	104.8194	1.56E-03		104.8585
Total	**0.047**	**0.0166**	**0.2773**	**1.05E-03**	**0.1479**	**6.40E-04**	**0.1485**	**0.0392**	**5.90E-04**	**0.0398**		**104.8194**	**104.8194**	**1.56E-03**		**104.8585**

3.3 Grading - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6552	0	6.6552	3.3786	0	3.3786			0			0
Off-Road	3.2807	13.8462	23.0239	0.0699		0.4879	0.4879		0.4879	0.4879		7,213.11	7,213.11	0.2915		7,220.40
Total	**3.2807**	**13.8462**	**23.0239**	**0.0699**	**6.6552**	**0.4879**	**7.1431**	**3.3786**	**0.4879**	**3.8665**		**7,213.11**	**7,213.11**	**0.2915**		**7,220.40**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0523	0.0184	0.3081	1.17E-03	0.1643	7.20E-04	0.165	0.0436	6.60E-04	0.0442		116.466	116.466	1.73E-03		116.5094
Total	**0.0523**	**0.0184**	**0.3081**	**1.17E-03**	**0.1643**	**7.20E-04**	**0.165**	**0.0436**	**6.60E-04**	**0.0442**		**116.466**	**116.466**	**1.73E-03**		**116.5094**

3.4 Utilities - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4508	3.9318	17.2598	0.0411		0.1549	0.1549		0.1549	0.1549		3,891.48	3,891.48	0.1275		3,894.66
Total	**1.4508**	**3.9318**	**17.2598**	**0.0411**		**0.1549**	**0.1549**		**0.1549**	**0.1549**		**3,891.48**	**3,891.48**	**0.1275**		**3,894.66**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0392	0.0138	0.2311	8.80E-04	0.1232	5.40E-04	0.1238	0.0327	4.90E-04	0.0332		87.3495	87.3495	1.30E-03		87.3821
Total	**0.0392**	**0.0138**	**0.2311**	**8.80E-04**	**0.1232**	**5.40E-04**	**0.1238**	**0.0327**	**4.90E-04**	**0.0332**		**87.3495**	**87.3495**	**1.30E-03**		**87.3821**

3.5 Paving - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3845	7.1202	15.8495	0.0281		0.3306	0.3306		0.3306	0.3306		2,656.52	2,656.52	0.1245		2,659.63
Paving	0					0	0		0	0			0			0

Total	**1.3845**	**7.1202**	**15.8495**	**0.0281**		**0.3306**	**0.3306**		**0.3306**	**0.3306**		**2,656.52**	**2,656.52**	**0.1245**		**2,659.63**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0392	0.0138	0.2311	8.80E-04	0.1232	5.40E-04	0.1238	0.0327	4.90E-04	0.0332		87.3495	87.3495	1.30E-03		87.3821
Total	**0.0392**	**0.0138**	**0.2311**	**8.80E-04**	**0.1232**	**5.40E-04**	**0.1238**	**0.0327**	**4.90E-04**	**0.0332**		**87.3495**	**87.3495**	**1.30E-03**		**87.3821**

VMV 2031 NonRes - El Dorado-Mountain County County, Summer

VMV 2031 NonRes
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	25.00	1000sqft	0.57	25,000.00	0
City Park	3.50	Acre	3.50	152,460.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use -
Construction Phase - scaled durations to one year
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	18.00	17.00
tblConstructionPhase	NumDays	230.00	214.00
tblConstructionPhase	NumDays	8.00	7.00
tblConstructionPhase	NumDays	18.00	17.00
tblConstructionPhase	PhaseEndDate	2/23/2032	12/30/2031

tblConstructionPhase	PhaseEndDate	1/2/2032	11/12/2031
tblConstructionPhase	PhaseEndDate	2/14/2031	1/16/2031
tblConstructionPhase	PhaseEndDate	1/28/2032	12/5/2031
tblConstructionPhase	PhaseEndDate	2/4/2031	1/7/2031
tblConstructionPhase	PhaseStartDate	1/29/2032	12/6/2031
tblConstructionPhase	PhaseStartDate	2/15/2031	1/17/2031
tblConstructionPhase	PhaseStartDate	2/5/2031	1/8/2031
tblConstructionPhase	PhaseStartDate	1/3/2032	11/13/2031
tblConstructionPhase	PhaseStartDate	1/29/2031	1/1/2031
tblGrading	AcresOfGrading	3.50	4.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2031	20.6159	13.6846	18.0088	0.0476	18.2141	0.4373	18.6514	9.9699	0.4373	10.4072	0.0000	4,514.5731	4,514.5731	0.2192	0.0000	4,520.052
Maximum	**20.6159**	**13.6846**	**18.0088**	**0.0476**	**18.2141**	**0.4373**	**18.6514**	**9.9699**	**0.4373**	**10.4072**	**0.0000**	**4,514.5731**	**4,514.5731**	**0.2192**	**0.0000**	**4,520.052**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2031	1/7/2031	5	5	
2	Grading	Grading	1/8/2031	1/16/2031	5	7	
3	Building Construction	Building Construction	1/17/2031	11/12/2031	5	214	
4	Paving	Paving	11/13/2031	12/5/2031	5	17	
5	Architectural Coating	Architectural Coating	12/6/2031	12/30/2031	5	17	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42

Paving	Rollers	2	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	72.00	29.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.4399	13.668	16.2918	0.0466		0.4367	0.4367		0.4367	0.4367		4,409.75	4,409.75	0.2176		4,415.19
Total	**2.4399**	**13.668**	**16.2918**	**0.0466**	**18.0663**	**0.4367**	**18.5029**	**9.9307**	**0.4367**	**10.3673**		**4,409.75**	**4,409.75**	**0.2176**		**4,415.19**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.047	0.0166	0.2773	1.05E-03	0.1479	6.40E-04	0.1485	0.0392	5.90E-04	0.0398		104.8194	104.8194	1.56E-03		104.8585
Total	**0.047**	**0.0166**	**0.2773**	**1.05E-03**	**0.1479**	**6.40E-04**	**0.1485**	**0.0392**	**5.90E-04**	**0.0398**		**104.8194**	**104.8194**	**1.56E-03**		**104.8585**

3.3 Grading - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6281	0	6.6281	3.3757	0	3.3757			0			0
Off-Road	1.6179	7.7501	14.4518	0.0363		0.234	0.234		0.234	0.234		3,439.72	3,439.72	0.1437		3,443.31
Total	**1.6179**	**7.7501**	**14.4518**	**0.0363**	**6.6281**	**0.234**	**6.8621**	**3.3757**	**0.234**	**3.6097**		**3,439.72**	**3,439.72**	**0.1437**		**3,443.31**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0392	0.0138	0.2311	8.80E-04	0.1232	5.40E-04	0.1238	0.0327	4.90E-04	0.0332		87.3495	87.3495	1.30E-03		87.3821
Total	**0.0392**	**0.0138**	**0.2311**	**8.80E-04**	**0.1232**	**5.40E-04**	**0.1238**	**0.0327**	**4.90E-04**	**0.0332**		**87.3495**	**87.3495**	**1.30E-03**		**87.3821**

3.4 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.157	0.031		0.1481	0.1481		0.1481	0.1481		2,897.55	2,897.55	0.1162		2,900.45
Total	**1.3091**	**7.9346**	**16.157**	**0.031**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.55**	**2,897.55**	**0.1162**		**2,900.45**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0598	2.0758	0.7426	7.34E-03	0.1953	3.07E-03	0.1983	0.0561	2.93E-03	0.0591		767.0612	767.0612	8.01E-03		767.2613
Worker	0.1881	0.0664	1.1092	4.20E-03	0.5915	2.58E-03	0.594	0.1569	2.37E-03	0.1593		419.2777	419.2777	6.24E-03		419.4338
Total	**0.2479**	**2.1421**	**1.8518**	**0.0115**	**0.7867**	**5.65E-03**	**0.7924**	**0.213**	**5.30E-03**	**0.2183**		**1,186.34**	**1,186.34**	**0.0143**		**1,186.70**

3.5 Paving - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1543	6.2343	13.0935	0.023		0.2528	0.2528		0.2528	0.2528		2,154.26	2,154.26	0.1035		2,156.85
Paving	0					0	0		0	0			0			0
Total	**1.1543**	**6.2343**	**13.0935**	**0.023**		**0.2528**	**0.2528**		**0.2528**	**0.2528**		**2,154.26**	**2,154.26**	**0.1035**		**2,156.85**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0523	0.0184	0.3081	1.17E-03	0.1643	7.20E-04	0.165	0.0436	6.60E-04	0.0442		116.466	116.466	1.73E-03		116.5094
Total	**0.0523**	**0.0184**	**0.3081**	**1.17E-03**	**0.1643**	**7.20E-04**	**0.165**	**0.0436**	**6.60E-04**	**0.0442**		**116.466**	**116.466**	**1.73E-03**		**116.5094**

3.6 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.4485					0	0		0	0			0			0
Off-Road	0.1308	0.8563	1.7977	2.97E-03		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**20.5793**	**0.8563**	**1.7977**	**2.97E-03**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0366	0.0129	0.2157	8.20E-04	0.115	5.00E-04	0.1155	0.0305	4.60E-04	0.031		81.5262	81.5262	1.21E-03		81.5566
Total	**0.0366**	**0.0129**	**0.2157**	**8.20E-04**	**0.115**	**5.00E-04**	**0.1155**	**0.0305**	**4.60E-04**	**0.031**		**81.5262**	**81.5262**	**1.21E-03**		**81.5566**

VMV 2031 Vertical - El Dorado-Mountain County County, Summer

VMV 2031 Vertical

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	83.00	Dwelling Unit	4.22	83,000.00	237
Single Family Housing	202.00	Dwelling Unit	70.49	363,600.00	578

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage scaled from total acreage for buildout of land use

Construction Phase - Scaled durations to one year

Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00

tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	75.00	16.00
tblConstructionPhase	NumDays	1,110.00	244.00
tblConstructionPhase	PhaseEndDate	9/2/2036	12/30/2031
tblConstructionPhase	PhaseEndDate	2/5/2036	12/8/2031
tblConstructionPhase	PhaseStartDate	5/21/2036	12/9/2031
tblConstructionPhase	PhaseStartDate	11/5/2031	1/1/2031
tblLandUse	LotAcreage	5.19	4.22
tblLandUse	LotAcreage	65.58	70.49

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2031	524.1652	10.2036	18.9588	0.0463	1.2863	0.1560	1.4424	0.3457	0.1555	0.5012	0.0000	4,459.7341	4,459.7341	0.1360	0.0000	4,463.1335
Maximum	**524.1652**	**10.2036**	**18.9588**	**0.0463**	**1.2863**	**0.1560**	**1.4424**	**0.3457**	**0.1555**	**0.5012**	**0.0000**	**4,459.7341**	**4,459.7341**	**0.1360**	**0.0000**	**4,463.1335**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2031	12/8/2031	5	244	
2	Architectural Coating	Architectural Coating	12/9/2031	12/30/2031	5	16	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Building Construction	9	132.00	30.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Building Construction - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.157	0.031		0.1481	0.1481		0.1481	0.1481		2,897.55	2,897.55	0.1162		2,900.45
Total	**1.3091**	**7.9346**	**16.157**	**0.031**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.55**	**2,897.55**	**0.1162**		**2,900.45**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0618	2.1474	0.7682	7.60E-03	0.202	3.17E-03	0.2052	0.0581	3.03E-03	0.0611		793.5116	793.5116	8.28E-03		793.7186
Worker	0.3449	0.1216	2.0336	7.70E-03	1.0844	4.73E-03	1.0891	0.2876	4.35E-03	0.292		768.6758	768.6758	0.0115		768.962
Total	**0.4067**	**2.269**	**2.8018**	**0.0153**	**1.2863**	**7.90E-03**	**1.2942**	**0.3457**	**7.38E-03**	**0.3531**		**1,562.19**	**1,562.19**	**0.0197**		**1,562.68**

3.3 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	523.9665					0	0		0	0			0			0
Off-Road	0.1308	0.8563	1.7977	2.97E-03		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**524.0972**	**0.8563**	**1.7977**	**2.97E-03**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0679	0.024	0.4006	1.52E-03	0.2136	9.30E-04	0.2145	0.0567	8.60E-04	0.0575		151.4059	151.4059	2.25E-03		151.4622
Total	**0.0679**	**0.024**	**0.4006**	**1.52E-03**	**0.2136**	**9.30E-04**	**0.2145**	**0.0567**	**8.60E-04**	**0.0575**		**151.4059**	**151.4059**	**2.25E-03**		**151.4622**

VMV 2032 NonRes - El Dorado-Mountain County County, Summer

VMV 2032 NonRes

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior High School	779.00	Student	19.00	91,580.55	0
General Office Building	10.00	1000sqft	0.23	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - students and acreage per PD
Construction Phase - scaled durations to one year
Grading -
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	300.00	205.00
tblConstructionPhase	NumDays	30.00	20.00

tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	10.00	7.00
tblConstructionPhase	PhaseEndDate	7/13/2033	12/29/2032
tblConstructionPhase	PhaseEndDate	5/18/2033	11/19/2032
tblConstructionPhase	PhaseEndDate	3/24/2032	2/6/2032
tblConstructionPhase	PhaseEndDate	6/15/2033	12/9/2032
tblConstructionPhase	PhaseEndDate	2/11/2032	1/9/2032
tblConstructionPhase	PhaseStartDate	6/16/2033	12/10/2032
tblConstructionPhase	PhaseStartDate	3/25/2032	2/7/2032
tblConstructionPhase	PhaseStartDate	2/12/2032	1/10/2032
tblConstructionPhase	PhaseStartDate	5/19/2033	11/20/2032
tblConstructionPhase	PhaseStartDate	1/29/2032	1/1/2032
tblLandUse	LotAcreage	2.10	19.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2032	101.0410	13.8631	23.3130	0.0711	18.2141	0.4886	18.6514	9.9699	0.4885	10.4071	0.0000	7,327.1900	7,327.1900	0.2931	0.0000	7,334.5174
Maximum	**101.0410**	**13.8631**	**23.3130**	**0.0711**	**18.2141**	**0.4886**	**18.6514**	**9.9699**	**0.4885**	**10.4071**	**0.0000**	**7,327.1900**	**7,327.1900**	**0.2931**	**0.0000**	**7,334.5174**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2032	1/9/2032	5	7	
2	Grading	Grading	1/10/2032	2/6/2032	5	20	
3	Building Construction	Building Construction	2/7/2032	11/19/2032	5	205	
4	Paving	Paving	11/20/2032	12/9/2032	5	14	
5	Architectural Coating	Architectural Coating	12/10/2032	12/29/2032	5	14	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29

Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	42.00	17.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.4399	13.668	16.2918	0.0466		0.4367	0.4367		0.4367	0.4367		4,409.75	4,409.75	0.2176		4,415.19
Total	**2.4399**	**13.668**	**16.2918**	**0.0466**	**18.0663**	**0.4367**	**18.5029**	**9.9307**	**0.4367**	**10.3673**		**4,409.75**	**4,409.75**	**0.2176**		**4,415.19**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0429	0.0152	0.2602	1.03E-03	0.1479	6.00E-04	0.1485	0.0392	5.50E-04	0.0398		102.6733	102.6733	1.43E-03		102.709
Total	**0.0429**	**0.0152**	**0.2602**	**1.03E-03**	**0.1479**	**6.00E-04**	**0.1485**	**0.0392**	**5.50E-04**	**0.0398**		**102.6733**	**102.6733**	**1.43E-03**		**102.709**

3.3 Grading - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0	8.6733	3.5965	0	3.5965			0			0
Off-Road	3.2807	13.8462	23.0239	0.0699		0.4879	0.4879		0.4879	0.4879		7,213.11	7,213.11	0.2915		7,220.40
Total	**3.2807**	**13.8462**	**23.0239**	**0.0699**	**8.6733**	**0.4879**	**9.1613**	**3.5965**	**0.4879**	**4.0844**		**7,213.11**	**7,213.11**	**0.2915**		**7,220.40**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0477	0.0169	0.2891	1.14E-03	0.1643	6.60E-04	0.165	0.0436	6.10E-04	0.0442		114.0814	114.0814	1.59E-03		114.1211
Total	**0.0477**	**0.0169**	**0.2891**	**1.14E-03**	**0.1643**	**6.60E-04**	**0.165**	**0.0436**	**6.10E-04**	**0.0442**		**114.0814**	**114.0814**	**1.59E-03**		**114.1211**

3.4 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.157	0.031		0.1481	0.1481		0.1481	0.1481		2,897.55	2,897.55	0.1162		2,900.45
Total	**1.3091**	**7.9346**	**16.157**	**0.031**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.55**	**2,897.55**	**0.1162**		**2,900.45**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0346	1.1951	0.4311	4.29E-03	0.1145	1.69E-03	0.1162	0.0329	1.61E-03	0.0345		448.5442	448.5442	4.61E-03		448.6594
Worker	0.1002	0.0355	0.6071	2.40E-03	0.345	1.40E-03	0.3464	0.0915	1.28E-03	0.0928		239.571	239.571	3.33E-03		239.6542
Total	**0.1347**	**1.2306**	**1.0382**	**6.69E-03**	**0.4595**	**3.09E-03**	**0.4626**	**0.1244**	**2.89E-03**	**0.1273**		**688.1152**	**688.1152**	**7.94E-03**		**688.3136**

3.5 Paving - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3845	7.1202	15.8495	0.0281		0.3306	0.3306		0.3306	0.3306		2,656.52	2,656.52	0.1245		2,659.63

Paving	0					0	0		0	0			0			0
Total	**1.3845**	**7.1202**	**15.8495**	**0.0281**		**0.3306**	**0.3306**		**0.3306**	**0.3306**		**2,656.52**	**2,656.52**	**0.1245**		**2,659.63**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0358	0.0127	0.2168	8.60E-04	0.1232	5.00E-04	0.1237	0.0327	4.60E-04	0.0331		85.5611	85.5611	1.19E-03		85.5908
Total	**0.0358**	**0.0127**	**0.2168**	**8.60E-04**	**0.1232**	**5.00E-04**	**0.1237**	**0.0327**	**4.60E-04**	**0.0331**		**85.5611**	**85.5611**	**1.19E-03**		**85.5908**

3.6 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	100.8912					0	0		0	0			0			0
Off-Road	0.1308	0.8563	1.7977	2.97E-03		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**101.022**	**0.8563**	**1.7977**	**2.97E-03**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0191	6.76E-03	0.1156	4.60E-04	0.0657	2.70E-04	0.066	0.0174	2.40E-04	0.0177		45.6326	45.6326	6.30E-04		45.6484
Total	**0.0191**	**6.76E-03**	**0.1156**	**4.60E-04**	**0.0657**	**2.70E-04**	**0.066**	**0.0174**	**2.40E-04**	**0.0177**		**45.6326**	**45.6326**	**6.30E-04**		**45.6484**

VMV 2032 Vertical - El Dorado-Mountain County County, Summer

VMV 2032 Vertical

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	101.00	Dwelling Unit	5.13	101,000.00	289
Condo/Townhouse	71.00	Dwelling Unit	8.26	71,000.00	203
Single Family Housing	168.00	Dwelling Unit	58.62	302,400.00	480

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - Scaled durations to one year
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	75.00	16.00

tblConstructionPhase	NumDays	1,110.00	244.00
tblLandUse	LotAcreage	6.31	5.13
tblLandUse	LotAcreage	4.44	8.26
tblLandUse	LotAcreage	54.55	58.62

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2032	556.8014	10.6210	19.7296	0.0506	1.7539	0.1578	1.9117	0.4706	0.1572	0.6278	0.0000	4,896.9540	4,896.9540	0.1406	0.0000	4,900.4689
Maximum	**556.8014**	**10.6210**	**19.7296**	**0.0506**	**1.7539**	**0.1578**	**1.9117**	**0.4706**	**0.1572**	**0.6278**	**0.0000**	**4,896.9540**	**4,896.9540**	**0.1406**	**0.0000**	**4,900.4689**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2032	12/7/2032	5	244	
2	Architectural Coating	Architectural Coating	12/8/2032	12/29/2032	5	16	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Building Construction	9	184.00	36.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	37.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Building Construction - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Off-Road	1.3091	7.9346	16.157	0.031		0.1481	0.1481		0.1481	0.1481		2,897.55	2,897.55	0.1162		2,900.45
Total	**1.3091**	**7.9346**	**16.157**	**0.031**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.55**	**2,897.55**	**0.1162**		**2,900.45**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0732	2.5308	0.9129	9.09E-03	0.2424	3.57E-03	0.246	0.0697	3.42E-03	0.0731		949.8583	949.8583	9.76E-03		950.1023
Worker	0.4388	0.1555	2.6597	0.0105	1.5115	6.12E-03	1.5176	0.4009	5.63E-03	0.4066		1,049.55	1,049.55	0.0146		1,049.91
Total	**0.512**	**2.6863**	**3.5726**	**0.0196**	**1.7539**	**9.69E-03**	**1.7636**	**0.4706**	**9.05E-03**	**0.4797**		**1,999.41**	**1,999.41**	**0.0244**		**2,000.02**

3.3 Architectural Coating - 2032

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Archit. Coating	556.5824					0	0		0	0			0			0
Off-Road	0.1308	0.8563	1.7977	2.97E-03		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**556.7131**	**0.8563**	**1.7977**	**2.97E-03**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust PM10	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0882	0.0313	0.5348	2.11E-03	0.304	1.23E-03	0.3052	0.0806	1.13E-03	0.0818		211.0506	211.0506	2.93E-03		211.124
Total	**0.0882**	**0.0313**	**0.5348**	**2.11E-03**	**0.304**	**1.23E-03**	**0.3052**	**0.0806**	**1.13E-03**	**0.0818**		**211.0506**	**211.0506**	**2.93E-03**		**211.124**

VMV 2033 Intrack - El Dorado-Mountain County County, Summer

VMV 2033 Intrack

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	427.00	Dwelling Unit	149.00	768,600.00	1221

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - scaled durations to one year; assumed trenching duration is similiar to site preparation
Off-road Equipment - per applicant
Grading - total acreage graded
Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	310.00	105.00
tblConstructionPhase	NumDays	220.00	74.00
tblConstructionPhase	NumDays	120.00	41.00
tblConstructionPhase	PhaseEndDate	4/19/2047	9/19/2033
tblConstructionPhase	PhaseEndDate	6/1/2035	7/25/2033
tblConstructionPhase	PhaseEndDate	2/21/2048	12/30/2033
tblConstructionPhase	PhaseEndDate	3/24/2034	2/28/2033

tblConstructionPhase	PhaseStartDate	6/2/2035	7/26/2033
tblConstructionPhase	PhaseStartDate	3/25/2034	3/1/2033
tblConstructionPhase	PhaseStartDate	4/20/2047	9/20/2033
tblConstructionPhase	PhaseStartDate	10/8/2033	1/1/2033
tblGrading	AcresOfGrading	262.50	149.00
tblLandUse	LotAcreage	138.64	149.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	3.3245	13.8618	23.2966	0.0711	18.2141	0.4886	18.6513	9.9699	0.4885	10.4071	0.0000	7,325.1318	7,325.1318	0.2930	0.0000	7,332.4561
Maximum	**3.3245**	**13.8618**	**23.2966**	**0.0711**	**18.2141**	**0.4886**	**18.6513**	**9.9699**	**0.4885**	**10.4071**	**0.0000**	**7,325.1318**	**7,325.1318**	**0.2930**	**0.0000**	**7,332.4561**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2033	2/28/2033	5	41	
2	Grading	Grading	3/1/2033	7/25/2033	5	105	
3	Utilities	Trenching	7/26/2033	9/19/2033	5	40	
4	Paving	Paving	9/20/2033	12/30/2033	5	74	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utilities	Excavators	4	2.00	158	0.38
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Grading	Excavators	2	8.00	158	0.38
Utilities	Cranes	0	7.00	231	0.29
Utilities	Forklifts	0	8.00	89	0.20
Utilities	Generator Sets	0	8.00	84	0.74

Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Utilities	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Utilities	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust PM2.5	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.4399	13.668	16.2918	0.0466		0.4367	0.4367		0.4367	0.4367		4,409.75	4,409.75	0.2176		4,415.19
Total	**2.4399**	**13.668**	**16.2918**	**0.0466**	**18.0663**	**0.4367**	**18.5029**	**9.9307**	**0.4367**	**10.3673**		**4,409.75**	**4,409.75**	**0.2176**		**4,415.19**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust PM2.5	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0394	0.0141	0.2455	1.01E-03	0.1479	5.60E-04	0.1484	0.0392	5.10E-04	0.0397		100.8209	100.8209	1.31E-03		100.8538
Total	**0.0394**	**0.0141**	**0.2455**	**1.01E-03**	**0.1479**	**5.60E-04**	**0.1484**	**0.0392**	**5.10E-04**	**0.0397**		**100.8209**	**100.8209**	**1.31E-03**		**100.8538**

3.3 Grading - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.527	0	7.527	3.4727	0	3.4727			0			0
Off-Road	3.2807	13.8462	23.0239	0.0699		0.4879	0.4879		0.4879	0.4879		7,213.11	7,213.11	0.2915		7,220.40
Total	**3.2807**	**13.8462**	**23.0239**	**0.0699**	**7.527**	**0.4879**	**8.0149**	**3.4727**	**0.4879**	**3.9607**		**7,213.11**	**7,213.11**	**0.2915**		**7,220.40**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0438	0.0156	0.2727	1.12E-03	0.1643	6.20E-04	0.1649	0.0436	5.70E-04	0.0442		112.0233	112.0233	1.46E-03		112.0598
Total	**0.0438**	**0.0156**	**0.2727**	**1.12E-03**	**0.1643**	**6.20E-04**	**0.1649**	**0.0436**	**5.70E-04**	**0.0442**		**112.0233**	**112.0233**	**1.46E-03**		**112.0598**

3.4 Utilities - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7707	2.2556	6.5261	0.0219		0.0815	0.0815		0.0815	0.0815		2,077.09	2,077.09	0.0669		2,078.76
Total	**0.7707**	**2.2556**	**6.5261**	**0.0219**		**0.0815**	**0.0815**		**0.0815**	**0.0815**		**2,077.09**	**2,077.09**	**0.0669**		**2,078.76**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0328	0.0117	0.2046	8.40E-04	0.1232	4.60E-04	0.1237	0.0327	4.30E-04	0.0331		84.0175	84.0175	1.09E-03		84.0448
Total	**0.0328**	**0.0117**	**0.2046**	**8.40E-04**	**0.1232**	**4.60E-04**	**0.1237**	**0.0327**	**4.30E-04**	**0.0331**		**84.0175**	**84.0175**	**1.09E-03**		**84.0448**

3.5 Paving - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Off-Road	1.3845	7.1202	15.8495	0.0281		0.3306	0.3306		0.3306	0.3306		2,656.52	2,656.52	0.1245		2,659.63
Paving	0					0	0		0	0			0			0
Total	**1.3845**	**7.1202**	**15.8495**	**0.0281**		**0.3306**	**0.3306**		**0.3306**	**0.3306**		**2,656.52**	**2,656.52**	**0.1245**		**2,659.63**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust PM2.5	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0328	0.0117	0.2046	8.40E-04	0.1232	4.60E-04	0.1237	0.0327	4.30E-04	0.0331		84.0175	84.0175	1.09E-03		84.0448
Total	**0.0328**	**0.0117**	**0.2046**	**8.40E-04**	**0.1232**	**4.60E-04**	**0.1237**	**0.0327**	**4.30E-04**	**0.0331**		**84.0175**	**84.0175**	**1.09E-03**		**84.0448**

VMV 2033 NonRes - El Dorado-Mountain County County, Summer

VMV 2033 NonRes

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	12.00	1000sqft	0.28	12,000.00	0
City Park	8.00	Acre	8.00	348,480.00	0
User Defined Recreational	10.00	User Defined Unit	10.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - acreage per PD
Construction Phase - scaled durations to one year
Off-road Equipment - equipment for vineyard added
Grading -
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00

tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	300.00	205.00
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	10.00	7.00
tblConstructionPhase	PhaseEndDate	7/14/2034	12/30/2033
tblConstructionPhase	PhaseEndDate	5/19/2034	11/22/2033
tblConstructionPhase	PhaseEndDate	3/25/2033	2/8/2033
tblConstructionPhase	PhaseEndDate	6/16/2034	12/12/2033
tblConstructionPhase	PhaseEndDate	2/11/2033	1/11/2033
tblConstructionPhase	PhaseStartDate	6/17/2034	12/13/2033
tblConstructionPhase	PhaseStartDate	3/26/2033	2/9/2033
tblConstructionPhase	PhaseStartDate	2/12/2033	1/12/2033
tblConstructionPhase	PhaseStartDate	5/20/2034	11/23/2033
tblConstructionPhase	PhaseStartDate	1/29/2033	1/1/2033
tblLandUse	LotAcreage	0.00	10.00
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	12.1150	18.0813	28.0546	0.0858	18.2141	0.6280	18.6513	9.9699	0.6280	10.4071	0.0000	8,719.9496	8,719.9496	0.3610	0.0000	8,728.9751
Maximum	**12.1150**	**18.0813**	**28.0546**	**0.0858**	**18.2141**	**0.6280**	**18.6513**	**9.9699**	**0.6280**	**10.4071**	**0.0000**	**8,719.9496**	**8,719.9496**	**0.3610**	**0.0000**	**8,728.9751**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2033	1/11/2033	5	7	
2	Grading	Grading	1/12/2033	2/8/2033	5	20	
3	Building Construction	Building Construction	2/9/2033	11/22/2033	5	205	
4	Paving	Paving	11/23/2033	12/12/2033	5	14	
5	Architectural Coating	Architectural Coating	12/13/2033	12/30/2033	5	14	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Rubber Tired Loaders	1		203	0.36
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle Class	Vendor	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	150.00	59.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.4399	13.668	16.2918	0.0466		0.4367	0.4367		0.4367	0.4367		4,409.75	4,409.75	0.2176		4,415.19
Total	**2.4399**	**13.668**	**16.2918**	**0.0466**	**18.0663**	**0.4367**	**18.5029**	**9.9307**	**0.4367**	**10.3673**		**4,409.75**	**4,409.75**	**0.2176**		**4,415.19**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0394	0.0141	0.2455	1.01E-03	0.1479	5.60E-04	0.1484	0.0392	5.10E-04	0.0397		100.8209	100.8209	1.31E-03		100.8538
Total	**0.0394**	**0.0141**	**0.2455**	**1.01E-03**	**0.1479**	**5.60E-04**	**0.1484**	**0.0392**	**5.10E-04**	**0.0397**		**100.8209**	**100.8209**	**1.31E-03**		**100.8538**

3.3 Grading - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					14.6954	0	14.6954	6.9067	0	6.9067			0			0
Off-Road	4.0366	18.0595	27.6727	0.0842		0.6272	0.6272		0.6272	0.6272		8,563.12	8,563.12	0.359		8,572.09
Total	**4.0366**	**18.0595**	**27.6727**	**0.0842**	**14.6954**	**0.6272**	**15.3226**	**6.9067**	**0.6272**	**7.5339**		**8,563.12**	**8,563.12**	**0.359**		**8,572.09**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0613	0.0219	0.3818	1.57E-03	0.23	8.70E-04	0.2309	0.061	8.00E-04	0.0618		156.8326	156.8326	2.04E-03		156.8837
Total	**0.0613**	**0.0219**	**0.3818**	**1.57E-03**	**0.23**	**8.70E-04**	**0.2309**	**0.061**	**8.00E-04**	**0.0618**		**156.8326**	**156.8326**	**2.04E-03**		**156.8837**

3.4 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.157	0.031		0.1481	0.1481		0.1481	0.1481		2,897.55	2,897.55	0.1162		2,900.45
Total	**1.3091**	**7.9346**	**16.157**	**0.031**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.55**	**2,897.55**	**0.1162**		**2,900.45**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.1187	4.076	1.4882	0.0149	0.3973	5.56E-03	0.4028	0.1142	5.32E-03	0.1195		1,552.95	1,552.95	0.0158		1,553.35
Worker	0.3284	0.1171	2.0455	8.42E-03	1.2322	4.64E-03	1.2369	0.3268	4.27E-03	0.3311		840.1745	840.1745	0.011		840.4482

Total	**0.4471**	**4.1931**	**3.5337**	**0.0233**	**1.6295**	**0.0102**	**1.6397**	**0.4411**	**9.59E-03**	**0.4507**		**2,393.13**	**2,393.13**	**0.0268**		**2,393.79**

3.5 Paving - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3845	7.1202	15.8495	0.0281		0.3306	0.3306		0.3306	0.3306		2,656.52	2,656.52	0.1245		2,659.63
Paving	0					0	0		0	0			0			0
Total	**1.3845**	**7.1202**	**15.8495**	**0.0281**		**0.3306**	**0.3306**		**0.3306**	**0.3306**		**2,656.52**	**2,656.52**	**0.1245**		**2,659.63**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0328	0.0117	0.2046	8.40E-04	0.1232	4.60E-04	0.1237	0.0327	4.30E-04	0.0331		84.0175	84.0175	1.09E-03		84.0448
Total	**0.0328**	**0.0117**	**0.2046**	**8.40E-04**	**0.1232**	**4.60E-04**	**0.1237**	**0.0327**	**4.30E-04**	**0.0331**		**84.0175**	**84.0175**	**1.09E-03**		**84.0448**

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.9186					0	0		0	0			0			0
Off-Road	0.1308	0.8563	1.7977	2.97E-03		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**12.0493**	**0.8563**	**1.7977**	**2.97E-03**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0657	0.0234	0.4091	1.68E-03	0.2464	9.30E-04	0.2474	0.0654	8.50E-04	0.0662		168.0349	168.0349	2.19E-03		168.0896
Total	**0.0657**	**0.0234**	**0.4091**	**1.68E-03**	**0.2464**	**9.30E-04**	**0.2474**	**0.0654**	**8.50E-04**	**0.0662**		**168.0349**	**168.0349**	**2.19E-03**		**168.0896**

VMV 2033 Vertical - El Dorado-Mountain County County, Summer

VMV 2033 Vertical

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	72.00	Dwelling Unit	8.38	72,000.00	206
Apartments Low Rise	76.00	Dwelling Unit	3.86	76,000.00	217
Single Family Housing	167.00	Dwelling Unit	58.28	300,600.00	478

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - Scaled durations to one year
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	75.00	16.00
tblConstructionPhase	NumDays	1,110.00	244.00

tblConstructionPhase	PhaseEndDate	9/3/2038	12/30/2033
tblConstructionPhase	PhaseEndDate	2/5/2038	12/8/2033
tblConstructionPhase	PhaseStartDate	5/22/2038	12/9/2033
tblConstructionPhase	PhaseStartDate	11/5/2033	1/1/2033
tblLandUse	LotAcreage	4.50	8.38
tblLandUse	LotAcreage	4.75	3.86
tblLandUse	LotAcreage	54.22	58.28

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2033	526.5159	10.4138	19.2919	0.0489	1.6008	0.1565	1.7573	0.4297	0.1560	0.5857	0.0000	4,727.8623	4,727.8623	0.1375	0.0000	4,731.3007
Maximum	**526.5159**	**10.4138**	**19.2919**	**0.0489**	**1.6008**	**0.1565**	**1.7573**	**0.4297**	**0.1560**	**0.5857**	**0.0000**	**4,727.8623**	**4,727.8623**	**0.1375**	**0.0000**	**4,731.3007**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2033	12/8/2033	5	244	
2	Architectural Coating	Architectural Coating	12/9/2033	12/30/2033	5	16	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Building Construction	9	167.00	34.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Architectural Coating		1	33.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Building Construction - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.157	0.031		0.1481	0.1481		0.1481	0.1481		2,897.55	2,897.55	0.1162		2,900.45
Total	**1.3091**	**7.9346**	**16.157**	**0.031**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.55**	**2,897.55**	**0.1162**		**2,900.45**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0684	2.3489	0.8576	8.57E-03	0.2289	3.20E-03	0.2322	0.0658	3.06E-03	0.0689		894.9213	894.9213	9.11E-03		895.1489
Worker	0.3657	0.1303	2.2773	9.37E-03	1.3719	5.17E-03	1.377	0.3639	4.75E-03	0.3686		935.3943	935.3943	0.0122		935.699
Total	**0.434**	**2.4792**	**3.135**	**0.0179**	**1.6008**	**8.37E-03**	**1.6092**	**0.4297**	**7.81E-03**	**0.4375**		**1,830.32**	**1,830.32**	**0.0213**		**1,830.85**

3.3 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	526.3129					0	0		0	0			0			0
Off-Road	0.1308	0.8563	1.7977	2.97E-03		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**526.4437**	**0.8563**	**1.7977**	**2.97E-03**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0723	0.0258	0.45	1.85E-03	0.2711	1.02E-03	0.2721	0.0719	9.40E-04	0.0728		184.8384	184.8384	2.41E-03		184.8986
Total	**0.0723**	**0.0258**	**0.45**	**1.85E-03**	**0.2711**	**1.02E-03**	**0.2721**	**0.0719**	**9.40E-04**	**0.0728**		**184.8384**	**184.8384**	**2.41E-03**		**184.8986**

VMV 2034 NonRes

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	150.00	1000sqft	3.44	150,000.00	0
City Park	4.50	Acre	4.50	196,020.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - scaled durations to one year

Grading -

Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00

tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	20.00	17.00
tblConstructionPhase	NumDays	230.00	199.00
tblConstructionPhase	NumDays	20.00	17.00
tblConstructionPhase	NumDays	20.00	17.00
tblConstructionPhase	NumDays	10.00	9.00
tblConstructionPhase	PhaseEndDate	3/23/2035	12/28/2034
tblConstructionPhase	PhaseEndDate	1/26/2035	11/10/2034
tblConstructionPhase	PhaseEndDate	3/10/2034	2/6/2034
tblConstructionPhase	PhaseEndDate	2/23/2035	12/5/2034
tblConstructionPhase	PhaseEndDate	2/10/2034	1/12/2034
tblConstructionPhase	PhaseStartDate	2/24/2035	12/6/2034
tblConstructionPhase	PhaseStartDate	3/11/2034	2/7/2034
tblConstructionPhase	PhaseStartDate	2/11/2034	1/13/2034
tblConstructionPhase	PhaseStartDate	1/27/2035	11/11/2034
tblConstructionPhase	PhaseStartDate	1/28/2034	1/1/2034

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2034	122.8746	13.6811	19.2676	0.0525	18.2141	0.4372	18.6513	9.9699	0.4371	10.4070	0.0000	5,110.9425	5,110.9425	0.2188	0.0000	5,114.4448
Maximum	**122.8746**	**13.6811**	**19.2676**	**0.0525**	**18.2141**	**0.4372**	**18.6513**	**9.9699**	**0.4371**	**10.4070**	**0.0000**	**5,110.9425**	**5,110.9425**	**0.2188**	**0.0000**	**5,114.4448**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2034	1/12/2034	5	9	
2	Grading	Grading	1/13/2034	2/6/2034	5	17	
3	Building Construction	Building Construction	2/7/2034	11/10/2034	5	199	
4	Paving	Paving	11/11/2034	12/5/2034	5	17	
5	Architectural Coating	Architectural Coating	12/6/2034	12/28/2034	5	17	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle Class	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	130.00	57.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.4399	13.668	16.2918	0.0466		0.4367	0.4367		0.4367	0.4367		4,409.75	4,409.75	0.2176		4,415.19
Total	**2.4399**	**13.668**	**16.2918**	**0.0466**	**18.0663**	**0.4367**	**18.5029**	**9.9307**	**0.4367**	**10.3673**		**4,409.75**	**4,409.75**	**0.2176**		**4,415.19**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0

Worker	0.0365	0.0131	0.2321	9.90E-04	0.1479	5.20E-04	0.1484	0.0392	4.80E-04	0.0397		99.2257	99.2257	1.21E-03		99.256
Total	**0.0365**	**0.0131**	**0.2321**	**9.90E-04**	**0.1479**	**5.20E-04**	**0.1484**	**0.0392**	**4.80E-04**	**0.0397**		**99.2257**	**99.2257**	**1.21E-03**		**99.256**

3.3 Grading - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0	6.5523	3.3675	0	3.3675			0			0
Off-Road	1.6179	7.7501	14.4518	0.0363		0.234	0.234		0.234	0.234		3,439.72	3,439.72	0.1437		3,443.31
Total	**1.6179**	**7.7501**	**14.4518**	**0.0363**	**6.5523**	**0.234**	**6.7864**	**3.3675**	**0.234**	**3.6015**		**3,439.72**	**3,439.72**	**0.1437**		**3,443.31**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0304	0.0109	0.1934	8.30E-04	0.1232	4.30E-04	0.1237	0.0327	4.00E-04	0.0331		82.6881	82.6881	1.01E-03		82.7134
Total	**0.0304**	**0.0109**	**0.1934**	**8.30E-04**	**0.1232**	**4.30E-04**	**0.1237**	**0.0327**	**4.00E-04**	**0.0331**		**82.6881**	**82.6881**	**1.01E-03**		**82.7134**

3.4 Building Construction - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.157	0.031		0.1481	0.1481		0.1481	0.1481		2,897.55	2,897.55	0.1162		2,900.45
Total	**1.3091**	**7.9346**	**16.157**	**0.031**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.55**	**2,897.55**	**0.1162**		**2,900.45**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.1136	3.8731	1.4342	0.0143	0.3838	5.12E-03	0.389	0.1104	4.90E-03	0.1153		1,496.77	1,496.77	0.0151		1,497.14
Worker	0.2634	0.0946	1.6765	7.18E-03	1.0679	3.75E-03	1.0717	0.2833	3.45E-03	0.2867		716.6304	716.6304	8.75E-03		716.8492
Total	**0.3769**	**3.9677**	**3.1107**	**0.0215**	**1.4518**	**8.87E-03**	**1.4606**	**0.3936**	**8.35E-03**	**0.402**		**2,213.40**	**2,213.40**	**0.0238**		**2,213.99**

3.5 Paving - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3845	7.1202	15.8495	0.0281		0.3306	0.3306		0.3306	0.3306		2,656.52	2,656.52	0.1245		2,659.63
Paving	0					0	0		0	0			0			0
Total	**1.3845**	**7.1202**	**15.8495**	**0.0281**		**0.3306**	**0.3306**		**0.3306**	**0.3306**		**2,656.52**	**2,656.52**	**0.1245**		**2,659.63**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0304	0.0109	0.1934	8.30E-04	0.1232	4.30E-04	0.1237	0.0327	4.00E-04	0.0331		82.6881	82.6881	1.01E-03		82.7134
Total	**0.0304**	**0.0109**	**0.1934**	**8.30E-04**	**0.1232**	**4.30E-04**	**0.1237**	**0.0327**	**4.00E-04**	**0.0331**		**82.6881**	**82.6881**	**1.01E-03**		**82.7134**

3.6 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	122.6912					0	0		0	0			0			0
Off-Road	0.1308	0.8563	1.7977	2.97E-03		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**122.8219**	**0.8563**	**1.7977**	**2.97E-03**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0527	0.0189	0.3353	1.44E-03	0.2136	7.50E-04	0.2143	0.0567	6.90E-04	0.0573		143.3261	143.3261	1.75E-03		143.3698
Total	**0.0527**	**0.0189**	**0.3353**	**1.44E-03**	**0.2136**	**7.50E-04**	**0.2143**	**0.0567**	**6.90E-04**	**0.0573**		**143.3261**	**143.3261**	**1.75E-03**		**143.3698**

VMV 2034 Vert - El Dorado-Mountain County County, Summer

VMV 2034 Vert

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	122.00	Dwelling Unit	42.57	219,600.00	349

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage scaled from total acreage for buildout of land use

Construction Phase - Scaled durations to one year

Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	55.00	18.00

tblConstructionPhase	NumDays	740.00	242.00
tblConstructionPhase	PhaseEndDate	11/6/2037	12/29/2034
tblConstructionPhase	PhaseEndDate	6/5/2037	12/5/2034
tblConstructionPhase	PhaseStartDate	8/22/2037	12/6/2034
tblConstructionPhase	PhaseStartDate	8/5/2034	1/1/2034
tblLandUse	LotAcreage	39.61	42.57

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2034	229.1643	8.8500	17.0515	0.0367	0.4490	0.1506	0.5996	0.1210	0.1504	0.2715	0.0000	3,481.4661	3,481.4661	0.1226	0.0000	3,484.5324
Maximum	**229.1643**	**8.8500**	**17.0515**	**0.0367**	**0.4490**	**0.1506**	**0.5996**	**0.1210**	**0.1504**	**0.2715**	**0.0000**	**3,481.4661**	**3,481.4661**	**0.1226**	**0.0000**	**3,484.5324**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2034	12/5/2034	5	242	
2	Architectural Coating	Architectural Coating	12/6/2034	12/29/2034	5	18	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Building Construction	9	44.00	13.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Building Construction - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.157	0.031		0.1481	0.1481		0.1481	0.1481		2,897.55	2,897.55	0.1162		2,900.45
Total	**1.3091**	**7.9346**	**16.157**	**0.031**		**0.1481**	**0.1481**		**0.1481**	**0.1481**		**2,897.55**	**2,897.55**	**0.1162**		**2,900.45**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0259	0.8833	0.3271	3.27E-03	0.0875	1.17E-03	0.0887	0.0252	1.12E-03	0.0263		341.3676	341.3676	3.44E-03		341.4536
Worker	0.0891	0.032	0.5674	2.43E-03	0.3615	1.27E-03	0.3627	0.0959	1.17E-03	0.097		242.5518	242.5518	2.96E-03		242.6259
Total	**0.115**	**0.9154**	**0.8945**	**5.70E-03**	**0.449**	**2.44E-03**	**0.4514**	**0.121**	**2.29E-03**	**0.1233**		**583.9194**	**583.9194**	**6.40E-03**		**584.0795**

3.3 Architectural Coating - 2034

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	229.0154					0	0		0	0			0			0
Off-Road	0.1308	0.8563	1.7977	2.97E-03		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**229.1461**	**0.8563**	**1.7977**	**2.97E-03**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0182	6.55E-03	0.1161	5.00E-04	0.0739	2.60E-04	0.0742	0.0196	2.40E-04	0.0199		49.6129	49.6129	6.10E-04		49.628
Total	**0.0182**	**6.55E-03**	**0.1161**	**5.00E-04**	**0.0739**	**2.60E-04**	**0.0742**	**0.0196**	**2.40E-04**	**0.0199**		**49.6129**	**49.6129**	**6.10E-04**		**49.628**

VMV 2035 Intrack - El Dorado-Mountain County County, Summer

VMV 2035 Intrack

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	10.00	Dwelling Unit	3.49	18,000.00	29

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - assumed trenching duration is similiar to site preparation
Off-road Equipment - per applicant
Grading - total acreage graded
Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	1/17/2035	1/24/2035
tblConstructionPhase	PhaseEndDate	2/12/2035	2/19/2035
tblConstructionPhase	PhaseStartDate	1/18/2035	1/25/2035
tblGrading	AcresOfGrading	4.00	3.49
tblLandUse	LotAcreage	3.25	3.49
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.36	0.36

tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2035	2.1822	10.1523	17.4247	0.0475	18.2141	0.2916	18.5057	9.9699	0.2916	10.2615	0.0000	4,507.6185	4,507.6185	0.1901	0.0000	4,512.3698
Maximum	**2.1822**	**10.1523**	**17.4247**	**0.0475**	**18.2141**	**0.2916**	**18.5057**	**9.9699**	**0.2916**	**10.2615**	**0.0000**	**4,507.6185**	**4,507.6185**	**0.1901**	**0.0000**	**4,512.3698**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2035	1/5/2035	5	5	
2	Grading	Grading	1/6/2035	1/17/2035	5	8	
3	Utililties	Trenching	1/18/2035	1/24/2035	5	5	
4	Paving	Paving	1/25/2035	2/19/2035	5	18	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Utililties	Excavators	4	8.00	158	0.38
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Utililties	Rubber Tired Loaders	2	8.00	203	0.36
Utililties	Cranes	0	7.00	231	0.29
Utililties	Forklifts	0	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Utililties	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Utililties	Generator Sets	0	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Utililties	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utililties	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.1483	10.1399	15.9731	0.0466		0.2911	0.2911		0.2911	0.2911		4,409.75	4,409.75	0.1889		4,414.48
Total	**2.1483**	**10.1399**	**15.9731**	**0.0466**	**18.0663**	**0.2911**	**18.3574**	**9.9307**	**0.2911**	**10.2218**		**4,409.75**	**4,409.75**	**0.1889**		**4,414.48**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0338	0.0123	0.2206	9.80E-04	0.1479	4.90E-04	0.1484	0.0392	4.50E-04	0.0397		97.8649	97.8649	1.12E-03		97.893
Total	**0.0338**	**0.0123**	**0.2206**	**9.80E-04**	**0.1479**	**4.90E-04**	**0.1484**	**0.0392**	**4.50E-04**	**0.0397**		**97.8649**	**97.8649**	**1.12E-03**		**97.893**

3.3 Grading - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4847	0	6.4847	3.3602	0	3.3602			0			0
Off-Road	1.4619	5.9823	14.3296	0.0363		0.1557	0.1557		0.1557	0.1557		3,439.72	3,439.72	0.1282		3,442.93
Total	**1.4619**	**5.9823**	**14.3296**	**0.0363**	**6.4847**	**0.1557**	**6.6404**	**3.3602**	**0.1557**	**3.5158**		**3,439.72**	**3,439.72**	**0.1282**		**3,442.93**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0282	0.0103	0.1839	8.20E-04	0.1232	4.00E-04	0.1236	0.0327	3.70E-04	0.0331		81.554	81.554	9.40E-04		81.5775
Total	**0.0282**	**0.0103**	**0.1839**	**8.20E-04**	**0.1232**	**4.00E-04**	**0.1236**	**0.0327**	**3.70E-04**	**0.0331**		**81.554**	**81.554**	**9.40E-04**		**81.5775**

3.4 Utililties - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Off-Road	1.3334	2.6781	17.2408	0.0411		0.1027	0.1027		0.1027	0.1027		3,891.48	3,891.48	0.1164		3,894.39
Total	**1.3334**	**2.6781**	**17.2408**	**0.0411**		**0.1027**	**0.1027**		**0.1027**	**0.1027**		**3,891.48**	**3,891.48**	**0.1164**		**3,894.39**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0282	0.0103	0.1839	8.20E-04	0.1232	4.00E-04	0.1236	0.0327	3.70E-04	0.0331		81.554	81.554	9.40E-04		81.5775
Total	**0.0282**	**0.0103**	**0.1839**	**8.20E-04**	**0.1232**	**4.00E-04**	**0.1236**	**0.0327**	**3.70E-04**	**0.0331**		**81.554**	**81.554**	**9.40E-04**		**81.5775**

3.5 Paving - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Off-Road	0.9893	4.7441	13.0737	0.023		0.154	0.154		0.154	0.154		2,154.26	2,154.26	0.0885		2,156.47
Paving	0					0	0		0	0			0			0
Total	**0.9893**	**4.7441**	**13.0737**	**0.023**		**0.154**	**0.154**		**0.154**	**0.154**		**2,154.26**	**2,154.26**	**0.0885**		**2,156.47**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0376	0.0137	0.2452	1.09E-03	0.1643	5.40E-04	0.1648	0.0436	5.00E-04	0.0441		108.7387	108.7387	1.25E-03		108.77
Total	**0.0376**	**0.0137**	**0.2452**	**1.09E-03**	**0.1643**	**5.40E-04**	**0.1648**	**0.0436**	**5.00E-04**	**0.0441**		**108.7387**	**108.7387**	**1.25E-03**		**108.77**

VMV 2035 NonRes - El Dorado-Mountain County County, Summer

VMV 2035 NonRes

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	100.00	1000sqft	2.30	100,000.00	0
City Park	12.00	Acre	12.00	522,720.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use -
Construction Phase - scaled durations to one year
Grading -
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	300.00	205.00

tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	10.00	7.00
tblConstructionPhase	PhaseEndDate	7/11/2036	12/28/2035
tblConstructionPhase	PhaseEndDate	5/16/2036	11/20/2035
tblConstructionPhase	PhaseEndDate	3/23/2035	2/6/2035
tblConstructionPhase	PhaseEndDate	6/13/2036	12/10/2035
tblConstructionPhase	PhaseEndDate	2/9/2035	1/9/2035
tblConstructionPhase	PhaseStartDate	6/14/2036	12/11/2035
tblConstructionPhase	PhaseStartDate	3/24/2035	2/7/2035
tblConstructionPhase	PhaseStartDate	2/10/2035	1/10/2035
tblConstructionPhase	PhaseStartDate	5/17/2036	11/21/2035
tblConstructionPhase	PhaseStartDate	1/27/2035	1/1/2035

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2035	99.5333	14.1614	22.7701	0.0710	18.2141	0.3148	18.5057	9.9699	0.3147	10.2615	0.0000	7,321.8535	7,321.8535	0.2572	0.0000	7,328.2835
Maximum	**99.5333**	**14.1614**	**22.7701**	**0.0710**	**18.2141**	**0.3148**	**18.5057**	**9.9699**	**0.3147**	**10.2615**	**0.0000**	**7,321.8535**	**7,321.8535**	**0.2572**	**0.0000**	**7,328.2835**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2035	1/9/2035	5	7	
2	Grading	Grading	1/10/2035	2/6/2035	5	20	
3	Building Construction	Building Construction	2/7/2035	11/20/2035	5	205	
4	Paving	Paving	11/21/2035	12/10/2035	5	14	
5	Architectural Coating	Architectural Coating	12/11/2035	12/28/2035	5	14	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	0.38

Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling Vehicle
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	252.00	102.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	50.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.1483	10.1399	15.9731	0.0466		0.2911	0.2911		0.2911	0.2911		4,409.75	4,409.75	0.1889		4,414.48
Total	**2.1483**	**10.1399**	**15.9731**	**0.0466**	**18.0663**	**0.2911**	**18.3574**	**9.9307**	**0.2911**	**10.2218**		**4,409.75**	**4,409.75**	**0.1889**		**4,414.48**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0338	0.0123	0.2206	9.80E-04	0.1479	4.90E-04	0.1484	0.0392	4.50E-04	0.0397		97.8649	97.8649	1.12E-03		97.893
Total	**0.0338**	**0.0123**	**0.2206**	**9.80E-04**	**0.1479**	**4.90E-04**	**0.1484**	**0.0392**	**4.50E-04**	**0.0397**		**97.8649**	**97.8649**	**1.12E-03**		**97.893**

3.3 Grading - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0	8.6733	3.5965	0	3.5965			0			0
Off-Road	2.9116	9.5942	22.525	0.0699		0.3142	0.3142		0.3142	0.3142		7,213.11	7,213.11	0.256		7,219.51
Total	**2.9116**	**9.5942**	**22.525**	**0.0699**	**8.6733**	**0.3142**	**8.9876**	**3.5965**	**0.3142**	**3.9107**		**7,213.11**	**7,213.11**	**0.256**		**7,219.51**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0376	0.0137	0.2452	1.09E-03	0.1643	5.40E-04	0.1648	0.0436	5.00E-04	0.0441		108.7387	108.7387	1.25E-03		108.77
Total	**0.0376**	**0.0137**	**0.2452**	**1.09E-03**	**0.1643**	**5.40E-04**	**0.1648**	**0.0436**	**5.00E-04**	**0.0441**		**108.7387**	**108.7387**	**1.25E-03**		**108.77**

3.4 Building Construction - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.031		0.0904	0.0904		0.0904	0.0904		2,897.55	2,897.55	0.1079		2,900.24
Total	**1.2168**	**7.1613**	**16.1178**	**0.031**		**0.0904**	**0.0904**		**0.0904**	**0.0904**		**2,897.55**	**2,897.55**	**0.1079**		**2,900.24**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.2014	6.8274	2.5517	0.0256	0.6869	8.77E-03	0.6957	0.1975	8.38E-03	0.2059		2,673.25	2,673.25	0.0267		2,673.92
Worker	0.4736	0.1727	3.089	0.0137	2.0701	6.80E-03	2.0769	0.5491	6.25E-03	0.5553		1,370.11	1,370.11	0.0158		1,370.50
Total	**0.6749**	**7.0001**	**5.6407**	**0.0393**	**2.757**	**0.0156**	**2.7726**	**0.7466**	**0.0146**	**0.7612**		**4,043.36**	**4,043.36**	**0.0425**		**4,044.42**

3.5 Paving - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Off-Road	1.1405	4.8761	15.8203	0.0281		0.1874	0.1874		0.1874	0.1874		2,656.52	2,656.52	0.1022		2,659.07
Paving	0					0	0		0	0			0			0
Total	**1.1405**	**4.8761**	**15.8203**	**0.0281**		**0.1874**	**0.1874**		**0.1874**	**0.1874**		**2,656.52**	**2,656.52**	**0.1022**		**2,659.07**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0282	0.0103	0.1839	8.20E-04	0.1232	4.00E-04	0.1236	0.0327	3.70E-04	0.0331		81.554	81.554	9.40E-04		81.5775
Total	**0.0282**	**0.0103**	**0.1839**	**8.20E-04**	**0.1232**	**4.00E-04**	**0.1236**	**0.0327**	**3.70E-04**	**0.0331**		**81.554**	**81.554**	**9.40E-04**		**81.5775**

3.6 Architectural Coating - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	99.3214					0	0		0	0			0			0
Off-Road	0.1179	0.7577	1.7943	2.97E-03		9.90E-03	9.90E-03		9.90E-03	9.90E-03		281.4481	281.4481	0.0104		281.7081
Total	**99.4393**	**0.7577**	**1.7943**	**2.97E-03**		**9.90E-03**	**9.90E-03**		**9.90E-03**	**9.90E-03**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.094	0.0343	0.6129	2.72E-03	0.4107	1.35E-03	0.4121	0.109	1.24E-03	0.1102		271.8468	271.8468	3.12E-03		271.9249
Total	**0.094**	**0.0343**	**0.6129**	**2.72E-03**	**0.4107**	**1.35E-03**	**0.4121**	**0.109**	**1.24E-03**	**0.1102**		**271.8468**	**271.8468**	**3.12E-03**		**271.9249**

VMV 2035 Vertical - El Dorado-Mountain County County, Summer

VMV 2035 Vertical

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	77.00	Dwelling Unit	26.87	138,600.00	220

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - Acreage scaled from total acreage for buildout of land use
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	35.00	19.00
tblConstructionPhase	NumDays	440.00	241.00
tblConstructionPhase	PhaseEndDate	4/24/2037	12/28/2035
tblConstructionPhase	PhaseEndDate	1/16/2037	12/3/2035
tblConstructionPhase	PhaseStartDate	3/7/2037	12/4/2035

tblConstructionPhase	PhaseStartDate	5/12/2035	1/1/2035
tblLandUse	LotAcreage	25.00	26.87

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2035	137.0641	7.7160	16.6611	0.0345	0.2839	0.0919	0.3758	0.0765	0.0918	0.1683	0.0000	3,259.448	3,259.4480	0.1118	0.0000	3,262.242
Maximum	**137.0641**	**7.7160**	**16.6611**	**0.0345**	**0.2839**	**0.0919**	**0.3758**	**0.0765**	**0.0918**	**0.1683**	**0.0000**	**3,259.448**	**3,259.4480**	**0.1118**	**0.0000**	**3,262.242**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2035	12/3/2035	5	241	
2	Architectural Coating	Architectural Coating	12/4/2035	12/28/2035	5	19	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Building Construction	9	28.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.031		0.0904	0.0904		0.0904	0.0904		2,897.55	2,897.55	0.1079		2,900.24
Total	**1.2168**	**7.1613**	**16.1178**	**0.031**		**0.0904**	**0.0904**		**0.0904**	**0.0904**		**2,897.55**	**2,897.55**	**0.1079**		**2,900.24**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0158	0.5355	0.2001	2.01E-03	0.0539	6.90E-04	0.0546	0.0155	6.60E-04	0.0162		209.6671	209.6671	2.09E-03		209.7194
Worker	0.0526	0.0192	0.3432	1.52E-03	0.23	7.60E-04	0.2308	0.061	6.90E-04	0.0617		152.2342	152.2342	1.75E-03		152.278
Total	**0.0684**	**0.5547**	**0.5434**	**3.53E-03**	**0.2839**	**1.45E-03**	**0.2853**	**0.0765**	**1.35E-03**	**0.0779**		**361.9013**	**361.9013**	**3.84E-03**		**361.9974**

3.3 Architectural Coating - 2035

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	136.935					0	0		0	0			0			0
Off-Road	0.1179	0.7577	1.7943	2.97E-03		9.90E-03	9.90E-03		9.90E-03	9.90E-03		281.4481	281.4481	0.0104		281.7081
Total	**137.0529**	**0.7577**	**1.7943**	**2.97E-03**		**9.90E-03**	**9.90E-03**		**9.90E-03**	**9.90E-03**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0113	4.11E-03	0.0736	3.30E-04	0.0493	1.60E-04	0.0495	0.0131	1.50E-04	0.0132		32.6216	32.6216	3.70E-04		32.631
Total	**0.0113**	**4.11E-03**	**0.0736**	**3.30E-04**	**0.0493**	**1.60E-04**	**0.0495**	**0.0131**	**1.50E-04**	**0.0132**		**32.6216**	**32.6216**	**3.70E-04**		**32.631**

VMV 2036 NonRes - El Dorado-Mountain County County, Summer

VMV 2036 NonRes

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	15.00	1000sqft	0.34	15,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use -
Construction Phase -
Grading -
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	PhaseEndDate	6/19/2036	6/5/2036
tblConstructionPhase	PhaseEndDate	6/5/2036	5/22/2036
tblConstructionPhase	PhaseEndDate	1/17/2036	1/3/2036
tblConstructionPhase	PhaseEndDate	6/12/2036	5/29/2036

tblConstructionPhase	PhaseEndDate	1/15/2036	1/1/2036
tblConstructionPhase	PhaseStartDate	6/13/2036	5/30/2036
tblConstructionPhase	PhaseStartDate	1/18/2036	1/4/2036
tblConstructionPhase	PhaseStartDate	1/16/2036	1/2/2036
tblConstructionPhase	PhaseStartDate	6/6/2036	5/23/2036
tblConstructionPhase	PhaseStartDate	1/15/2036	1/1/2036

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2036	41.8348	3.4825	7.6958	0.0147	0.8349	0.1072	0.8830	0.4356	0.1071	0.4836	0.0000	1,402.397	1,402.3972	0.0589	0.0000	1,403.694
Maximum	**41.8348**	**3.4825**	**7.6958**	**0.0147**	**0.8349**	**0.1072**	**0.8830**	**0.4356**	**0.1071**	**0.4836**	**0.0000**	**1,402.397**	**1,402.3972**	**0.0589**	**0.0000**	**1,403.694**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2036	1/1/2036	5	1	
2	Grading	Grading	1/2/2036	1/3/2036	5	2	
3	Building Construction	Building Construction	1/4/2036	5/22/2036	5	100	
4	Paving	Paving	5/23/2036	5/29/2036	5	5	
5	Architectural Coating	Architectural Coating	5/30/2036	6/5/2036	5	5	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	5.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0	0.5303	0.0573	0	0.0573			0			0
Off-Road	0.4284	1.574	3.8815	0.0119		0.0343	0.0343		0.0343	0.0343		1,128.20	1,128.20	0.0376		1,129.14
Total	**0.4284**	**1.574**	**3.8815**	**0.0119**	**0.5303**	**0.0343**	**0.5646**	**0.0573**	**0.0343**	**0.0916**		**1,128.20**	**1,128.20**	**0.0376**		**1,129.14**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	9.40E-03	3.43E-03	0.0613	2.70E-04	0.0411	1.30E-04	0.0412	0.0109	1.20E-04	0.011		27.1847	27.1847	3.10E-04		27.1925
Total	**9.40E-03**	**3.43E-03**	**0.0613**	**2.70E-04**	**0.0411**	**1.30E-04**	**0.0412**	**0.0109**	**1.20E-04**	**0.011**		**27.1847**	**27.1847**	**3.10E-04**		**27.1925**

3.3 Grading - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0	0.7528	0.4138	0	0.4138			0			0
Off-Road	0.5158	3.2611	7.4159	0.0133		0.0478	0.0478		0.0478	0.0478		1,256.04	1,256.04	0.0461		1,257.19
Total	**0.5158**	**3.2611**	**7.4159**	**0.0133**	**0.7528**	**0.0478**	**0.8005**	**0.4138**	**0.0478**	**0.4616**		**1,256.04**	**1,256.04**	**0.0461**		**1,257.19**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0188	6.85E-03	0.1226	5.40E-04	0.0822	2.70E-04	0.0824	0.0218	2.50E-04	0.022		54.3694	54.3694	6.20E-04		54.385
Total	**0.0188**	**6.85E-03**	**0.1226**	**5.40E-04**	**0.0822**	**2.70E-04**	**0.0824**	**0.0218**	**2.50E-04**	**0.022**		**54.3694**	**54.3694**	**6.20E-04**		**54.385**

3.4 Building Construction - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5761	2.9031	7.1465	0.014		0.0423	0.0423		0.0423	0.0423		1,322.80	1,322.80	0.0511		1,324.07
Total	**0.5761**	**2.9031**	**7.1465**	**0.014**		**0.0423**	**0.0423**		**0.0423**	**0.0423**		**1,322.80**	**1,322.80**	**0.0511**		**1,324.07**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	3.95E-03	0.1339	0.05	5.00E-04	0.0135	1.70E-04	0.0136	3.87E-03	1.60E-04	4.04E-03		52.4168	52.4168	5.20E-04		52.4299
Worker	9.40E-03	3.43E-03	0.0613	2.70E-04	0.0411	1.30E-04	0.0412	0.0109	1.20E-04	0.011		27.1847	27.1847	3.10E-04		27.1925
Total	**0.0134**	**0.1373**	**0.1113**	**7.70E-04**	**0.0545**	**3.00E-04**	**0.0549**	**0.0148**	**2.80E-04**	**0.0151**		**79.6014**	**79.6014**	**8.30E-04**		**79.6223**

3.5 Paving - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6458	3.4702	7.4752	0.0133		0.1067	0.1067		0.1067	0.1067		1,211.78	1,211.78	0.0578		1,213.22
Paving	0					0	0		0	0			0			0
Total	**0.6458**	**3.4702**	**7.4752**	**0.0133**		**0.1067**	**0.1067**		**0.1067**	**0.1067**		**1,211.78**	**1,211.78**	**0.0578**		**1,213.22**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0

Worker	0.0338	0.0123	0.2206	9.80E-04	0.1479	4.90E-04	0.1484	0.0392	4.50E-04	0.0397		97.8649	97.8649	1.12E-03		97.893
Total	**0.0338**	**0.0123**	**0.2206**	**9.80E-04**	**0.1479**	**4.90E-04**	**0.1484**	**0.0392**	**4.50E-04**	**0.0397**		**97.8649**	**97.8649**	**1.12E-03**		**97.893**

3.6 Architectural Coating - 2036

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	41.715					0	0		0	0			0			0
Off-Road	0.1179	0.7577	1.7943	2.97E-03		9.90E-03	9.90E-03		9.90E-03	9.90E-03		281.4481	281.4481	0.0104		281.7081
Total	**41.8329**	**0.7577**	**1.7943**	**2.97E-03**		**9.90E-03**	**9.90E-03**		**9.90E-03**	**9.90E-03**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	1.88E-03	6.90E-04	0.0123	5.00E-05	8.21E-03	3.00E-05	8.24E-03	2.18E-03	2.00E-05	2.20E-03		5.4369	5.4369	6.00E-05		5.4385
Total	**1.88E-03**	**6.90E-04**	**0.0123**	**5.00E-05**	**8.21E-03**	**3.00E-05**	**8.24E-03**	**2.18E-03**	**2.00E-05**	**2.20E-03**		**5.4369**	**5.4369**	**6.00E-05**		**5.4385**

VMV 2036 Vertical - El Dorado-Mountain County County, Summer

VMV 2036 Vertical

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	87.00	Dwelling Unit	30.36	156,600.00	249

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - Scaled durations to one year
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	35.00	17.00
tblConstructionPhase	NumDays	500.00	243.00
tblConstructionPhase	PhaseEndDate	7/19/2038	12/29/2036
tblConstructionPhase	PhaseEndDate	4/12/2038	12/4/2036

tblConstructionPhase	PhaseStartDate	6/1/2038	12/5/2036
tblConstructionPhase	PhaseStartDate	5/13/2036	1/1/2036
tblLandUse	LotAcreage	28.25	30.36

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2036	173.0501	7.7850	16.7229	0.0349	0.3153	0.0920	0.4073	0.0850	0.0919	0.1769	0.0000	3,301.9672	3,301.9672	0.1122	0.0000	3,304.7726
Maximum	**173.0501**	**7.7850**	**16.7229**	**0.0349**	**0.3153**	**0.0920**	**0.4073**	**0.0850**	**0.0919**	**0.1769**	**0.0000**	**3,301.9672**	**3,301.9672**	**0.1122**	**0.0000**	**3,304.7726**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2036	12/4/2036	5	243	
2	Architectural Coating	Architectural Coating	12/5/2036	12/29/2036	5	17	

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling
Building Construction	9	31.00	9.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Building Construction - 2036

Unmitigated Construction On-Site

Category	lb/day	lb/day

Off-Road	1.2168	7.1613	16.1178	0.031		0.0904	0.0904		0.0904	0.0904		2,897.55	2,897.55	0.1079		2,900.24
Total	**1.2168**	**7.1613**	**16.1178**	**0.031**		**0.0904**	**0.0904**		**0.0904**	**0.0904**		**2,897.55**	**2,897.55**	**0.1079**		**2,900.24**

Unmitigated Construction Off-Site

Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0178	0.6024	0.2252	2.26E-03	0.0606	7.70E-04	0.0614	0.0174	7.40E-04	0.0182		235.8754	235.8754	2.36E-03		235.9343
Worker	0.0583	0.0212	0.38	1.69E-03	0.2547	8.40E-04	0.2555	0.0676	7.70E-04	0.0683		168.545	168.545	1.94E-03		168.5935
Total	**0.076**	**0.6237**	**0.6051**	**3.95E-03**	**0.3153**	**1.61E-03**	**0.3169**	**0.085**	**1.51E-03**	**0.0865**		**404.4205**	**404.4205**	**4.30E-03**		**404.5278**

3.3 Architectural Coating - 2036

Unmitigated Construction On-Site

Category	lb/day											lb/day				
Archit. Coating	172.9209					0	0		0	0			0			0
Off-Road	0.1179	0.7577	1.7943	2.97E-03		9.90E-03	9.90E-03		9.90E-03	9.90E-03		281.4481	281.4481	0.0104		281.7081
Total	**173.0388**	**0.7577**	**1.7943**	**2.97E-03**		**9.90E-03**	**9.90E-03**		**9.90E-03**	**9.90E-03**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

Unmitigated Construction Off-Site

Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0113	4.11E-03	0.0736	3.30E-04	0.0493	1.60E-04	0.0495	0.0131	1.50E-04	0.0132		32.6216	32.6216	3.70E-04		32.631
Total	**0.0113**	**4.11E-03**	**0.0736**	**3.30E-04**	**0.0493**	**1.60E-04**	**0.0495**	**0.0131**	**1.50E-04**	**0.0132**		**32.6216**	**32.6216**	**3.70E-04**		**32.631**

VMV 2037 Intrack - El Dorado-Mountain County County, Summer

VMV 2037 Intrack

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	14.00	Dwelling Unit	1.63	14,000.00	40
Single Family Housing	75.00	Dwelling Unit	26.17	135,000.00	215

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildout of land use
Construction Phase - assumed trenching duration is similar to site preparation
Off-road Equipment - per applicant
Trips and VMT -
Grading - total aceage graded

Table Name	Column Name	Default Value	New Value
tblGrading	AcresOfGrading	112.50	27.80
tblLandUse	LotAcreage	0.88	1.63
tblLandUse	LotAcreage	24.35	26.17

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2037	2.9492	10.1523	22.7701	0.0710	18.2141	0.3148	18.5057	9.9699	0.3147	10.2615	0.0000	7,321.8535	7,321.8535	0.2572	0.0000	7,328.2835
Maximum	**2.9492**	**10.1523**	**22.7701**	**0.0710**	**18.2141**	**0.3148**	**18.5057**	**9.9699**	**0.3147**	**10.2615**	**0.0000**	**7,321.8535**	**7,321.8535**	**0.2572**	**0.0000**	**7,328.2835**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2037	1/28/2037	5	20	
2	Grading	Grading	1/29/2037	4/1/2037	5	45	
3	Utilities	Trenching	4/2/2037	4/29/2037	5	20	
4	Paving	Paving	4/30/2037	6/17/2037	5	35	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Cranes	0	7.00	231	0.29
Utilities	Excavators	4	8.00	158	0.38
Utilities	Forklifts	0	8.00	89	0.20
Utilities	Generator Sets	0	8.00	84	0.74
Utilities	Rubber Tired Loaders	2	8.00	203	0.36
Utilities	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Utilities	Welders	0	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Utilities	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.1483	10.1399	15.9731	0.0466		0.2911	0.2911		0.2911	0.2911		4,409.75	4,409.75	0.1889		4,414.48
Total	**2.1483**	**10.1399**	**15.9731**	**0.0466**	**18.0663**	**0.2911**	**18.3574**	**9.9307**	**0.2911**	**10.2218**		**4,409.75**	**4,409.75**	**0.1889**		**4,414.48**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0338	0.0123	0.2206	9.80E-04	0.1479	4.90E-04	0.1484	0.0392	4.50E-04	0.0397		97.8649	97.8649	1.12E-03		97.893
Total	**0.0338**	**0.0123**	**0.2206**	**9.80E-04**	**0.1479**	**4.90E-04**	**0.1484**	**0.0392**	**4.50E-04**	**0.0397**		**97.8649**	**97.8649**	**1.12E-03**		**97.893**

3.3 Grading - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6772	0	6.6772	3.381	0	3.381			0			0
Off-Road	2.9116	9.5942	22.525	0.0699		0.3142	0.3142		0.3142	0.3142		7,213.11	7,213.11	0.256		7,219.51
Total	**2.9116**	**9.5942**	**22.525**	**0.0699**	**6.6772**	**0.3142**	**6.9915**	**3.381**	**0.3142**	**3.6952**		**7,213.11**	**7,213.11**	**0.256**		**7,219.51**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0

Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0376	0.0137	0.2452	1.09E-03	0.1643	5.40E-04	0.1648	0.0436	5.00E-04	0.0441		108.7387	108.7387	1.25E-03		108.77
Total	**0.0376**	**0.0137**	**0.2452**	**1.09E-03**	**0.1643**	**5.40E-04**	**0.1648**	**0.0436**	**5.00E-04**	**0.0441**		**108.7387**	**108.7387**	**1.25E-03**		**108.77**

3.4 Utilities - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3268	2.6648	17.155	0.0409		0.1022	0.1022		0.1022	0.1022		3,872.12	3,872.12	0.1158		3,875.01
Total	**1.3268**	**2.6648**	**17.155**	**0.0409**		**0.1022**	**0.1022**		**0.1022**	**0.1022**		**3,872.12**	**3,872.12**	**0.1158**		**3,875.01**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0282	0.0103	0.1839	8.20E-04	0.1232	4.00E-04	0.1236	0.0327	3.70E-04	0.0331		81.554	81.554	9.40E-04		81.5775
Total	**0.0282**	**0.0103**	**0.1839**	**8.20E-04**	**0.1232**	**4.00E-04**	**0.1236**	**0.0327**	**3.70E-04**	**0.0331**		**81.554**	**81.554**	**9.40E-04**		**81.5775**

3.5 Paving - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1405	4.8761	15.8203	0.0281		0.1874	0.1874		0.1874	0.1874		2,656.52	2,656.52	0.1022		2,659.07
Paving	0					0	0		0	0			0			0
Total	**1.1405**	**4.8761**	**15.8203**	**0.0281**		**0.1874**	**0.1874**		**0.1874**	**0.1874**		**2,656.52**	**2,656.52**	**0.1022**		**2,659.07**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0282	0.0103	0.1839	8.20E-04	0.1232	4.00E-04	0.1236	0.0327	3.70E-04	0.0331		81.554	81.554	9.40E-04		81.5775
Total	**0.0282**	**0.0103**	**0.1839**	**8.20E-04**	**0.1232**	**4.00E-04**	**0.1236**	**0.0327**	**3.70E-04**	**0.0331**		**81.554**	**81.554**	**9.40E-04**		**81.5775**

VMV 2037 NonRes - El Dorado-Mountain County County, Summer

VMV 2037 NonRes

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	5.50	Acre	5.50	239,580.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use -
Construction Phase - city park; no demolition, building construction, coatings phase
Grading - total acreage graded

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	PhaseEndDate	3/11/2037	2/11/2037
tblConstructionPhase	PhaseEndDate	2/24/2038	3/11/2037
tblConstructionPhase	PhaseEndDate	2/11/2037	1/14/2037
tblConstructionPhase	PhaseStartDate	2/12/2037	1/15/2037
tblConstructionPhase	PhaseStartDate	1/28/2038	2/12/2037
tblConstructionPhase	PhaseStartDate	1/29/2037	1/1/2037
tblGrading	AcresOfGrading	10.00	5.50

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2037	2.1822	10.1523	16.1937	0.0475	18.2141	0.2916	18.5057	9.9699	0.2916	10.2615	0.0000	4,507.6185	4,507.6185	0.1901	0.0000	4,512.3698
Maximum	**2.1822**	**10.1523**	**16.1937**	**0.0475**	**18.2141**	**0.2916**	**18.5057**	**9.9699**	**0.2916**	**10.2615**	**0.0000**	**4,507.6185**	**4,507.6185**	**0.1901**	**0.0000**	**4,512.3698**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2037	1/14/2037	5	10	
2	Grading	Grading	1/15/2037	2/11/2037	5	20	
3	Paving	Paving	2/12/2037	3/11/2037	5	20	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0
Off-Road	2.1483	10.1399	15.9731	0.0466		0.2911	0.2911		0.2911	0.2911		4,409.75	4,409.75	0.1889		4,414.48
Total	**2.1483**	**10.1399**	**15.9731**	**0.0466**	**18.0663**	**0.2911**	**18.3574**	**9.9307**	**0.2911**	**10.2218**		**4,409.75**	**4,409.75**	**0.1889**		**4,414.48**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0338	0.0123	0.2206	9.80E-04	0.1479	4.90E-04	0.1484	0.0392	4.50E-04	0.0397		97.8649	97.8649	1.12E-03		97.893
Total	**0.0338**	**0.0123**	**0.2206**	**9.80E-04**	**0.1479**	**4.90E-04**	**0.1484**	**0.0392**	**4.50E-04**	**0.0397**		**97.8649**	**97.8649**	**1.12E-03**		**97.893**

3.3 Grading - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Fugitive Dust					6.3137	0	6.3137	3.3417	0	3.3417			0			0
Off-Road	1.4619	5.9823	14.3296	0.0363		0.1557	0.1557		0.1557	0.1557		3,439.72	3,439.72	0.1282		3,442.93
Total	**1.4619**	**5.9823**	**14.3296**	**0.0363**	**6.3137**	**0.1557**	**6.4694**	**3.3417**	**0.1557**	**3.4974**		**3,439.72**	**3,439.72**	**0.1282**		**3,442.93**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0282	0.0103	0.1839	8.20E-04	0.1232	4.00E-04	0.1236	0.0327	3.70E-04	0.0331		81.554	81.554	9.40E-04		81.5775
Total	**0.0282**	**0.0103**	**0.1839**	**8.20E-04**	**0.1232**	**4.00E-04**	**0.1236**	**0.0327**	**3.70E-04**	**0.0331**		**81.554**	**81.554**	**9.40E-04**		**81.5775**

3.4 Paving - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Off-Road	1.1405	4.8761	15.8203	0.0281		0.1874	0.1874		0.1874	0.1874		2,656.52	2,656.52	0.1022		2,659.07
Paving	0					0	0		0	0			0			0

Total	**1.1405**	**4.8761**	**15.8203**	**0.0281**		**0.1874**	**0.1874**		**0.1874**	**0.1874**		**2,656.52**	**2,656.52**	**0.1022**		**2,659.07**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0282	0.0103	0.1839	8.20E-04	0.1232	4.00E-04	0.1236	0.0327	3.70E-04	0.0331		81.554	81.554	9.40E-04		81.5775
Total	**0.0282**	**0.0103**	**0.1839**	**8.20E-04**	**0.1232**	**4.00E-04**	**0.1236**	**0.0327**	**3.70E-04**	**0.0331**		**81.554**	**81.554**	**9.40E-04**		**81.5775**

VMV 2037 Vertical - El Dorado-Mountain County County, Summer

VMV 2037 Vertical

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	77.00	Dwelling Unit	26.87	138,600.00	220

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage scaled from total acreage for buildout of land use

Construction Phase - Scaled durations to one year

Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	35.00	19.00

tblConstructionPhase	NumDays	440.00	241.00
tblConstructionPhase	PhaseEndDate	4/27/2039	12/30/2037
tblConstructionPhase	PhaseEndDate	1/19/2039	12/3/2037
tblConstructionPhase	PhaseStartDate	3/10/2039	12/4/2037
tblConstructionPhase	PhaseStartDate	5/14/2037	1/1/2037
tblLandUse	LotAcreage	25.00	26.87

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2037	137.0641	7.7160	16.6611	0.0345	0.2839	0.0919	0.3758	0.0765	0.0918	0.1683	0.0000	3,259.4480	3,259.4480	0.1118	0.0000	3,262.2421
Maximum	**137.0641**	**7.7160**	**16.6611**	**0.0345**	**0.2839**	**0.0919**	**0.3758**	**0.0765**	**0.0918**	**0.1683**	**0.0000**	**3,259.4480**	**3,259.4480**	**0.1118**	**0.0000**	**3,262.2421**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2037	12/3/2037	5	241	
2	Architectural Coating	Architectural Coating	12/4/2037	12/30/2037	5	19	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling
Building Construction	9	28.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Building Construction - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.031		0.0904	0.0904		0.0904	0.0904		2,897.55	2,897.55	0.1079		2,900.24
Total	**1.2168**	**7.1613**	**16.1178**	**0.031**		**0.0904**	**0.0904**		**0.0904**	**0.0904**		**2,897.55**	**2,897.55**	**0.1079**		**2,900.24**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0158	0.5355	0.2001	2.01E-03	0.0539	6.90E-04	0.0546	0.0155	6.60E-04	0.0162		209.6671	209.6671	2.09E-03		209.7194
Worker	0.0526	0.0192	0.3432	1.52E-03	0.23	7.60E-04	0.2308	0.061	6.90E-04	0.0617		152.2342	152.2342	1.75E-03		152.278
Total	**0.0684**	**0.5547**	**0.5434**	**3.53E-03**	**0.2839**	**1.45E-03**	**0.2853**	**0.0765**	**1.35E-03**	**0.0779**		**361.9013**	**361.9013**	**3.84E-03**		**361.9974**

3.3 Architectural Coating - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	136.935					0	0		0	0			0			0
Off-Road	0.1179	0.7577	1.7943	2.97E-03		9.90E-03	9.90E-03		9.90E-03	9.90E-03		281.4481	281.4481	0.0104		281.7081
Total	**137.0529**	**0.7577**	**1.7943**	**2.97E-03**		**9.90E-03**	**9.90E-03**		**9.90E-03**	**9.90E-03**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0113	4.11E-03	0.0736	3.30E-04	0.0493	1.60E-04	0.0495	0.0131	1.50E-04	0.0132		32.6216	32.6216	3.70E-04		32.631
Total	**0.0113**	**4.11E-03**	**0.0736**	**3.30E-04**	**0.0493**	**1.60E-04**	**0.0495**	**0.0131**	**1.50E-04**	**0.0132**		**32.6216**	**32.6216**	**3.70E-04**		**32.631**

VMV 2038 NonRes - El Dorado-Mountain County County, Summer

VMV 2038 NonRes

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	614.00	Student	16.00	51,332.47	0
General Office Building	10.00	1000sqft	0.23	10,000.00	0
City Park	6.00	Acre	6.00	261,360.00	0
User Defined Recreational	13,750.00	User Defined Unit	0.32	13,750.00	0
User Defined Recreational	14.00	User Defined Unit	14.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - acreages per PD
Construction Phase - scaled durations to one year
Off-road Equipment - equipment added for pedestrian/recreational trails and vineyards
Grading -
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00

tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	55.00	15.00
tblConstructionPhase	NumDays	740.00	201.00
tblConstructionPhase	NumDays	75.00	21.00
tblConstructionPhase	NumDays	55.00	15.00
tblConstructionPhase	NumDays	30.00	8.00
tblConstructionPhase	PhaseEndDate	11/7/2041	12/30/2038
tblConstructionPhase	PhaseEndDate	6/6/2041	11/18/2038
tblConstructionPhase	PhaseEndDate	8/5/2038	2/10/2038
tblConstructionPhase	PhaseEndDate	8/22/2041	12/9/2038
tblConstructionPhase	PhaseEndDate	4/22/2038	1/12/2038
tblConstructionPhase	PhaseStartDate	8/23/2041	12/10/2038
tblConstructionPhase	PhaseStartDate	8/6/2038	2/11/2038
tblConstructionPhase	PhaseStartDate	4/23/2038	1/13/2038
tblConstructionPhase	PhaseStartDate	6/7/2041	11/19/2038
tblConstructionPhase	PhaseStartDate	3/12/2038	1/1/2038
tblLandUse	LandUseSquareFeet	0.00	13,750.00
tblLandUse	LotAcreage	1.18	16.00
tblLandUse	LotAcreage	0.00	0.32
tblLandUse	LotAcreage	0.00	14.00
tblOffRoadEquipment	LoadFactor	0.36	0.36
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2038	69.7720	14.6014	32.1605	0.0936	18.2141	0.4333	18.5057	9.9699	0.4332	10.2615	0.0000	9,461.9987	9,461.9987	0.3453	0.0000	9,470.6300
Maximum	**69.7720**	**14.6014**	**32.1605**	**0.0936**	**18.2141**	**0.4333**	**18.5057**	**9.9699**	**0.4332**	**10.2615**	**0.0000**	**9,461.9987**	**9,461.9987**	**0.3453**	**0.0000**	**9,470.6300**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2038	1/12/2038	5	8	

2	Grading	Grading	1/13/2038	2/10/2038	5	21	
3	Building Construction	Building Construction	2/11/2038	11/18/2038	5	201	
4	Paving	Paving	11/19/2038	12/9/2038	5	15	
5	Architectural Coating	Architectural Coating	12/10/2038	12/30/2038	5	15	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Rubber Tired Loaders	1		203	0.36
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	13	33.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	140.00	55.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0	18.0663	9.9307	0	9.9307			0			0

Off-Road	2.1483	10.1399	15.9731	0.0466		0.2911	0.2911		0.2911	0.2911		4,409.75	4,409.75	0.1889		4,414.48
Total	**2.1483**	**10.1399**	**15.9731**	**0.0466**	**18.0663**	**0.2911**	**18.3574**	**9.9307**	**0.2911**	**10.2218**		**4,409.75**	**4,409.75**	**0.1889**		**4,414.48**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0338	0.0123	0.2206	9.80E-04	0.1479	4.90E-04	0.1484	0.0392	4.50E-04	0.0397		97.8649	97.8649	1.12E-03		97.893
Total	**0.0338**	**0.0123**	**0.2206**	**9.80E-04**	**0.1479**	**4.90E-04**	**0.1484**	**0.0392**	**4.50E-04**	**0.0397**		**97.8649**	**97.8649**	**1.12E-03**		**97.893**

3.3 Grading - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					14.6954	0	14.6954	6.9067	0	6.9067			0			0
Off-Road	3.8999	14.5788	31.756	0.0918		0.4324	0.4324		0.4324	0.4324		9,282.58	9,282.58	0.3432		9,291.16
Total	**3.8999**	**14.5788**	**31.756**	**0.0918**	**14.6954**	**0.4324**	**15.1278**	**6.9067**	**0.4324**	**7.3391**		**9,282.58**	**9,282.58**	**0.3432**		**9,291.16**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.062	0.0226	0.4045	1.80E-03	0.2711	8.90E-04	0.272	0.0719	8.20E-04	0.0727		179.4189	179.4189	2.06E-03		179.4705
Total	**0.062**	**0.0226**	**0.4045**	**1.80E-03**	**0.2711**	**8.90E-04**	**0.272**	**0.0719**	**8.20E-04**	**0.0727**		**179.4189**	**179.4189**	**2.06E-03**		**179.4705**

3.4 Building Construction - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.031		0.0904	0.0904		0.0904	0.0904		2,897.55	2,897.55	0.1079		2,900.24
Total	**1.2168**	**7.1613**	**16.1178**	**0.031**		**0.0904**	**0.0904**		**0.0904**	**0.0904**		**2,897.55**	**2,897.55**	**0.1079**		**2,900.24**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.1086	3.6815	1.3759	0.0138	0.3704	4.73E-03	0.3751	0.1065	4.52E-03	0.111		1,441.46	1,441.46	0.0144		1,441.82
Worker	0.2631	0.0959	1.7161	7.62E-03	1.1501	3.78E-03	1.1538	0.3051	3.47E-03	0.3085		761.1711	761.1711	8.75E-03		761.3898
Total	**0.3717**	**3.7774**	**3.092**	**0.0214**	**1.5205**	**8.51E-03**	**1.529**	**0.4116**	**7.99E-03**	**0.4195**		**2,202.63**	**2,202.63**	**0.0232**		**2,203.21**

3.5 Paving - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1405	4.8761	15.8203	0.0281		0.1874	0.1874		0.1874	0.1874		2,656.52	2,656.52	0.1022		2,659.07
Paving	0					0	0		0	0			0			0
Total	**1.1405**	**4.8761**	**15.8203**	**0.0281**		**0.1874**	**0.1874**		**0.1874**	**0.1874**		**2,656.52**	**2,656.52**	**0.1022**		**2,659.07**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0282	0.0103	0.1839	8.20E-04	0.1232	4.00E-04	0.1236	0.0327	3.70E-04	0.0331		81.554	81.554	9.40E-04		81.5775
Total	**0.0282**	**0.0103**	**0.1839**	**8.20E-04**	**0.1232**	**4.00E-04**	**0.1236**	**0.0327**	**3.70E-04**	**0.0331**		**81.554**	**81.554**	**9.40E-04**		**81.5775**

3.6 Architectural Coating - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.6015					0	0		0	0			0			0
Off-Road	0.1179	0.7577	1.7943	2.97E-03		9.90E-03	9.90E-03		9.90E-03	9.90E-03		281.4481	281.4481	0.0104		281.7081
Total	**69.7194**	**0.7577**	**1.7943**	**2.97E-03**		**9.90E-03**	**9.90E-03**		**9.90E-03**	**9.90E-03**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10 Total	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0526	0.0192	0.3432	1.52E-03	0.23	7.60E-04	0.2308	0.061	6.90E-04	0.0617		152.2342	152.2342	1.75E-03		152.278

Total	**0.0526**	**0.0192**	**0.3432**	**1.52E-03**	**0.23**	**7.60E-04**	**0.2308**	**0.061**	**6.90E-04**	**0.0617**		**152.2342**	**152.2342**	**1.75E-03**		**152.278**

VMV 2038 Vertical - El Dorado-Mountain County County, Summer

VMV 2038 Vertical
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	14.00	Dwelling Unit	1.63	14,000.00	40
Single Family Housing	149.00	Dwelling Unit	51.99	268,200.00	426

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
Land Use - Acreage scaled from total acreage for buildiut of land use
Construction Phase - Scaled durations to one year
Architectural Coating - VOC content updated per EDCAQMD Rule 215

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Parking	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblConstructionPhase	NumDays	75.00	16.00
tblConstructionPhase	NumDays	1,110.00	244.00
tblConstructionPhase	PhaseEndDate	7/17/2042	12/30/2038
tblConstructionPhase	PhaseEndDate	4/3/2042	12/8/2038

tblConstructionPhase	PhaseStartDate	4/4/2042	12/9/2038
tblLandUse	LotAcreage	0.88	1.63
tblLandUse	LotAcreage	48.38	51.99

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2038	331.2290	8.3431	17.3276	0.0387	0.6402	0.0936	0.7338	0.1724	0.0934	0.2658	0.0000	3,691.053	3,691.0532	0.1164	0.0000	3,693.962
Maximum	**331.2290**	**8.3431**	**17.3276**	**0.0387**	**0.6402**	**0.0936**	**0.7338**	**0.1724**	**0.0934**	**0.2658**	**0.0000**	**3,691.053**	**3,691.0532**	**0.1164**	**0.0000**	**3,693.962**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Building Construction	Building Construction	1/1/2038	12/8/2038	5	244	
2	Architectural Coating	Architectural Coating	12/9/2038	12/30/2038	5	16	

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Building Construction	9	64.00	17.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Building Construction - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.031		0.0904	0.0904		0.0904	0.0904		2,897.55	2,897.55	0.1079		2,900.24
Total	**1.2168**	**7.1613**	**16.1178**	**0.031**		**0.0904**	**0.0904**		**0.0904**	**0.0904**		**2,897.55**	**2,897.55**	**0.1079**		**2,900.24**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0.0336	1.1379	0.4253	4.27E-03	0.1145	1.46E-03	0.116	0.0329	1.40E-03	0.0343		445.5425	445.5425	4.45E-03		445.6538
Worker	0.1203	0.0439	0.7845	3.49E-03	0.5257	1.73E-03	0.5275	0.1395	1.59E-03	0.141		347.9639	347.9639	4.00E-03		348.0639
Total	**0.1538**	**1.1818**	**1.2098**	**7.76E-03**	**0.6402**	**3.19E-03**	**0.6434**	**0.1724**	**2.99E-03**	**0.1754**		**793.5064**	**793.5064**	**8.45E-03**		**793.7177**

3.3 Architectural Coating - 2038

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	331.0867					0	0		0	0			0			0
Off-Road	0.1179	0.7577	1.7943	2.97E-03		9.90E-03	9.90E-03		9.90E-03	9.90E-03		281.4481	281.4481	0.0104		281.7081
Total	**331.2046**	**0.7577**	**1.7943**	**2.97E-03**		**9.90E-03**	**9.90E-03**		**9.90E-03**	**9.90E-03**		**281.4481**	**281.4481**	**0.0104**		**281.7081**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Vendor	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Worker	0.0244	8.91E-03	0.1594	7.10E-04	0.1068	3.50E-04	0.1071	0.0283	3.20E-04	0.0287		70.6802	70.6802	8.10E-04		70.7005
Total	**0.0244**	**8.91E-03**	**0.1594**	**7.10E-04**	**0.1068**	**3.50E-04**	**0.1071**	**0.0283**	**3.20E-04**	**0.0287**		**70.6802**	**70.6802**	**8.10E-04**		**70.7005**

VMV Sequestration Loss - El Dorado-Mountain County County, Annual

VMV Sequestration Loss
El Dorado-Mountain County County, Annual

Project Characteristics

Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Popul
User Defined Recreational	1.00	User Defined Unit	0.00	0.00	0

Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	2			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity**	0.006

User Entered Comments & Non-Default Data

Land Use Change - Per VMVSP EIR Biology Chapter (Riparian, Chaparral, Grassland, and Wetlands). Native and Heritage Oak impacts would be mitigated at 1:1 ratio p

Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-22,473.44	0	0	-22,473.44

Vegetation Land Change
Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	1534 / 0	-6,611.54	0	0	-6,611.54
Trees	138.1 / 0	-15,329.10	0	0	-15,329.10

Trees	4.8 / 0	-532.8	0	0	-532.8
Wetlands	1.886 / 0	0	0	0	0
Total		**-22,473.44**	**0**	**0**	**-22,473.44**

Construction RCEM

Input Type

Project Name	HWY 50 to Marble Lake Blvd. - Phase I	
Construction Start Year	2021	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Project to 2) Road Widening : Project to add a ne 3) Bridge/Overpass Construction : Pro 4) Other Linear Project Type: Non-road
Project Construction Time	10.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	3	1) Sand Gravel : Use for quaternary de 2) Weathered Rock-Earth : Use for Lag 3) Blasted Rock : Use for Salt Springs
Project Length	0.76	miles
Total Project Area	3.67	acres
Maximum Area Disturbed/Day	3.67	acres
Water Trucks Used?	1	1. Yes 2. No

Input Type

Project Name	Lime Rock Valley Rd from Marble Lake Blvd - Phase I	
Construction Start Year	2022	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Project t 2) Road Widening : Project to add a n 3) Bridge/Overpass Construction : P 4) Other Linear Project Type: Non-roa
Project Construction Time	10.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	3	1) Sand Gravel : Use for quaternary 2) Weathered Rock-Earth : Use for L 3) Blasted Rock : Use for Salt Spring
Project Length	0.33	miles
Total Project Area	1.61	acres
Maximum Area Disturbed/Day	1.61	acres
Water Trucks Used?	1	1. Yes 2. No

Input Type

Input Type		
Project Name	Marble Valley Parkway - PL to Crazy Horse	
Construction Start Year	2031	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Project to build a roa 2) Road Widening : Project to add a new lane to a 3) Bridge/Overpass Construction : Project to buil 4) Other Linear Project Type: Non-roadway proje
Project Construction Time	10.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	3	1) Sand Gravel : Use for quaternary deposits (De 2) Weathered Rock-Earth : Use for Laguna forma 3) Blasted Rock : Use for Salt Springs Slate or Co
Project Length	0.45	miles
Total Project Area	2,20	acres
Maximum Area Disturbed/Day	2.20	acres
Water Trucks Used?	1	1. Yes 2. No

Input Type

Input Type		
Project Name	Bass Lake Road Interim Interchange	
Construction Start Year	2023	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Project to build 2) Road Widening : Project to add a new lar 3) Bridge/Overpass Construction : Project t 4) Other Linear Project Type: Non-roadway
Project Construction Time	20.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	3	1) Sand Gravel : Use for quaternary deposi 2) Weathered Rock-Earth : Use for Laguna 3) Blasted Rock : Use for Salt Springs Slate
Project Length	0.75	miles
Total Project Area	0.45	acres
Maximum Area Disturbed/Day	0.45	acres
Water Trucks Used?	1	1. Yes 2. No

Input Type

Project Name	Marble Lake Boulevard	
Construction Start Year	2021	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Project 2) Road Widening : Project to add a 3) Bridge/Overpass Construction : 4) Other Linear Project Type: Non-r
Project Construction Time	10.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	3	1) Sand Gravel : Use for quaternar 2) Weathered Rock-Earth : Use for 3) Blasted Rock : Use for Salt Sprin
Project Length	1.04	miles
Total Project Area	5.05	acres
Maximum Area Disturbed/Day	5.05	acres
Water Trucks Used?	1	1. Yes 2. No

Input Type

Project Name	Marble Valley Parkway - Marble Lake Blvd to PL	
Construction Start Year	2031	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Project to build 2) Road Widening : Project to add a new lar 3) Bridge/Overpass Construction : Project t 4) Other Linear Project Type: Non-roadway
Project Construction Time	10.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	3	1) Sand Gravel : Use for quaternary deposi 2) Weathered Rock-Earth : Use for Laguna 3) Blasted Rock : Use for Salt Springs Slate
Project Length	0.30	miles
Total Project Area	1.47	acres
Maximum Area Disturbed/Day	1.47	acres
Water Trucks Used?	1	1. Yes 2. No

Input Type

Project Name	Lime Rock Valley Rd to Deer Creek Rd - Phase I	
Construction Start Year	2022	Enter a Year between 201 2040 (inclusive)
Project Type	1	1) New Road Construction 2) Road Widening : Project 3) Bridge/Overpass Constr 4) Other Linear Project Typ
Project Construction Time	10.00	months
Working Days per Month	22.00	days (assume 22 if unknov
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	3	1) Sand Gravel : Use for q 2) Weathered Rock-Earth : 3) Blasted Rock : Use for S
Project Length	1.10	miles
Total Project Area	5.33	acres
Maximum Area Disturbed/Day	5.33	acres
Water Trucks Used?	1	1. Yes 2. No

Input Type

Project Name	Lime Rock Valley Rd to PL - Phase II	
Construction Start Year	2029	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Project to 2) Road Widening : Project to add a ne 3) Bridge/Overpass Construction : Pro 4) Other Linear Project Type: Non-road
Project Construction Time	10.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	3	1) Sand Gravel : Use for quaternary d 2) Weathered Rock-Earth : Use for La 3) Blasted Rock : Use for Salt Springs
Project Length	0.79	miles
Total Project Area	3.83	acres
Maximum Area Disturbed/Day	3.83	acres
Water Trucks Used?	1	1. Yes 2. No

Input Type

Project Name	HWY 50 to Marble Lake Blvd. - Phase II	
Construction Start Year	2035	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Project to build a roa 2) Road Widening : Project to add a new lane to 3) Bridge/Overpass Construction : Project to bui 4) Other Linear Project Type: Non-roadway proje
Project Construction Time	10.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	3	1) Sand Gravel : Use for quaternary deposits (D 2) Weathered Rock-Earth : Use for Laguna form 3) Blasted Rock : Use for Salt Springs Slate or C
Project Length	0.76	miles
Total Project Area	3.67	acres
Maximum Area Disturbed/Day	3.67	acres
Water Trucks Used?	1	1. Yes 2. No

Input Type

Project Name	Cambridge Interim Interchange Improvements (square feet)	
Construction Start Year	2029	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Project 2) Road Widening : Project to add a 3) Bridge/Overpass Construction : 4) Other Linear Project Type: Non-rc
Project Construction Time	20.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	3	1) Sand Gravel : Use for quaternar 2) Weathered Rock-Earth : Use for 3) Blasted Rock : Use for Salt Sprin
Project Length	0.75	miles
Total Project Area	0.57	acres
Maximum Area Disturbed/Day	0.57	acres
Water Trucks Used?	1	1. Yes 2. No

Input Type

Project Name	Phase IV sewer improvements -Drainage	
Construction Start Year	2033	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Projec 2) Road Widening : Project to add a 3) Bridge/Overpass Construction : 4) Other Linear Project Type: Non-r
Project Construction Time	20.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	3	1) Sand Gravel : Use for quaternar 2) Weathered Rock-Earth : Use for 3) Blasted Rock : Use for Salt Sprir
Project Length	2.46	miles
Total Project Area	1.49	acres
Maximum Area Disturbed/Day	1.49	acres
Water Trucks Used?	1	1. Yes 2. No

Input Type

Project Name	Phase III sewer improvements -Drainage	
Construction Start Year	2029	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Project to b 2) Road Widening : Project to add a nev 3) Bridge/Overpass Construction : Proj 4) Other Linear Project Type: Non-roadv
Project Construction Time	20.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	3	1) Sand Gravel : Use for quaternary de 2) Weathered Rock-Earth : Use for Lag 3) Blasted Rock : Use for Salt Springs S
Project Length	0.54	miles
Total Project Area	0.33	acres
Maximum Area Disturbed/Day	0.33	acres
Water Trucks Used?	1	1. Yes 2. No

Input Type

Project Name	Phase III sewer improvements -Drainage	
Construction Start Year	2029	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Project to 2) Road Widening : Project to add a ne 3) Bridge/Overpass Construction : Pro 4) Other Linear Project Type: Non-road
Project Construction Time	20.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	3	1) Sand Gravel : Use for quaternary d 2) Weathered Rock-Earth : Use for La 3) Blasted Rock : Use for Salt Springs
Project Length	0.54	miles
Total Project Area	0.33	acres
Maximum Area Disturbed/Day	0.33	acres
Water Trucks Used?	1	1. Yes 2. No

Input Type

Project Name	Phase I sewer improvements -Drainage	
Construction Start Year	2022	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Project to b 2) Road Widening : Project to add a nev 3) Bridge/Overpass Construction : Proj 4) Other Linear Project Type: Non-roadv
Project Construction Time	20.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	3	1) Sand Gravel : Use for quaternary de 2) Weathered Rock-Earth : Use for Lag 3) Blasted Rock : Use for Salt Springs S
Project Length	1.31	miles
Total Project Area	0.79	acres
Maximum Area Disturbed/Day	0.79	acres
Water Trucks Used?	1	1. Yes 2. No

Input Type

Project Name	24" Potable Water Transmission Line -Drainage	
Construction Start Year	2022	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Project to build a roadw 2) Road Widening : Project to add a new lane to an e 3) Bridge/Overpass Construction : Project to build a 4) Other Linear Project Type: Non-roadway project s
Project Construction Time	20.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	3	1) Sand Gravel : Use for quaternary deposits (Delta/ 2) Weathered Rock-Earth : Use for Laguna formatior 3) Blasted Rock : Use for Salt Springs Slate or Copp
Project Length	5.44	miles
Total Project Area	3.29	acres
Maximum Area Disturbed/Day	3.29	acres
Water Trucks Used?	1	1. Yes 2. No

Input Type

Project Name	Marble Valley - Off site - frontage	
Construction Start Year	2037	Enter a Year between 2014 and 2040 (inclusive)
Project Type	1	1) New Road Construction : Project to I 2) Road Widening : Project to add a ne 3) Bridge/Overpass Construction : Pro 4) Other Linear Project Type: Non-roadv
Project Construction Time	10.00	months
Working Days per Month	22.00	days (assume 22 if unknown)
Predominant Soil/Site Type: Enter 1, 2, or 3 (for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)	3	1) Sand Gravel : Use for quaternary de 2) Weathered Rock-Earth : Use for Lag 3) Blasted Rock : Use for Salt Springs
Project Length	0.51	miles
Total Project Area	2.48	acres
Maximum Area Disturbed/Day	2.48	acres
Water Trucks Used?	1	1. Yes 2. No

Construction Summary

					Unmitigated									Mitigated									MT/
								PM10			PM2.5						PM10			PM2.5			Year
Type	Phase	Start	End	Days	ROG	NOX	CO	Dust	Exhaust	Total	Dust	Exhaust	Total	ROG	NOX	CO	Dust	Exhaust	Total	Dust	Exhaust	Total	CO2e
Residential In track	Site Prep	1/1/2021	2/26/2021	41	4	41	22	18	2	20	10	2	12	4	36	22	5	2	7	3	2	4	72
Residential In track	Grading	2/27/2021	7/23/2021	105	4	46	32	7	2	9	3	2	5	4	42	32	2	2	4	1	2	3	296
Residential In track	Utilities	7/24/2021	9/17/2021	40	2	16	17	0	1	1	0	1	1	2	15	17	0	1	1	0	1	1	61
Residential In track	Paving	9/18/2021	12/30/2021	74	1	13	15	0	1	1	0	1	1	1	12	15	0	1	1	0	1	1	79
Residential In track	Site Prep	1/1/2022	1/14/2022	10	3	33	20	18	2	20	10	1	11	3	30	20	5	2	6	3	1	4	17
Residential In track	Grading	1/15/2022	2/25/2022	30	4	39	30	7	2	9	3	2	5	4	35	30	2	2	3	1	2	2	85
Residential In track	Utilities	2/26/2022	3/11/2022	10	1	13	17	0	1	1	0	1	1	1	12	17	0	1	1	0	1	1	15
Residential In track	Paving	3/12/2022	4/8/2022	20	1	11	15	0	1	1	0	1	1	1	10	15	0	1	1	0	1	1	21
Residential In track	Site Prep	1/1/2023	2/27/2023	41	3	28	19	18	1	19	10	1	11	3	25	19	5	1	6	3	1	4	2
Residential In track	Grading	2/28/2023	7/24/2023	105	3	35	29	7	1	8	3	1	5	3	31	29	2	1	3	1	1	2	0
Residential In track	Utilities	7/25/2023	9/18/2023	40	1	12	16	0	0	1	0	0	0	1	10	16	0	0	1	0	0	0	0
Residential In track	Paving	9/19/2023	12/29/2023	74	1	10	15	0	1	1	0	0	1	1	9	15	0	1	1	0	0	1	0
Residential In track	Site Prep	1/1/2024	2/22/2024	39	3	27	19	18	1	19	10	1	11	3	24	19	5	1	6	3	1	4	68
Residential In track	Grading	2/23/2024	7/23/2024	108	3	32	28	7	1	8	3	1	5	3	29	28	2	1	3	1	1	2	304
Residential In track	Utilities	7/24/2024	9/16/2024	39	1	10	17	0	0	1	0	0	0	1	9	17	0	0	1	0	0	0	59
Residential In track	Paving	9/17/2024	12/27/2024	74	1	10	15	0	0	1	0	0	0	1	9	15	0	0	1	0	0	0	78
Residential In track	Site Prep	1/12/2025	2/7/2025	20	3	25	18	18	1	19	10	1	11	3	23	18	5	1	6	3	1	4	35
Residential In track	Grading	2/8/2025	4/11/2025	45	3	28	27	7	1	8	3	1	4	3	25	27	2	1	3	1	1	2	126
Residential In track	Utilities	4/12/2025	5/9/2025	20	1	9	16	0	0	0	0	0	0	1	8	16	0	0	0	0	0	0	30
Residential In track	Paving	5/10/2025	6/27/2025	35	1	9	15	0	0	1	0	0	0	1	8	15	0	0	1	0	0	0	37
Residential In track	Site Prep	1/1/2026	1/14/2026	10	3	25	18	18	1	19	10	1	11	3	23	18	5	1	6	3	1	4	17
Residential In track	Grading	1/15/2026	2/25/2026	30	3	28	27	7	1	8	3	1	4	3	25	27	2	1	3	1	1	2	84
Residential In track	Utilities	2/26/2026	3/11/2026	10	1	9	16	0	0	0	0	0	0	1	8	16	0	0	0	0	0	0	15
Residential In track	Paving	3/12/2026	4/8/2026	20	1	9	15	0	0	1	0	0	0	1	8	15	0	0	1	0	0	0	21
Residential In track	Site Prep	1/1/2027	1/7/2027	5	3	25	18	18	1	19	10	1	11	3	23	18	5	1	6	3	1	4	9
Residential In track	Grading	1/8/2027	1/19/2027	8	2	15	15	7	1	7	3	1	4	2	14	15	2	1	2	1	1	1	11
Residential In track	Utilities	1/20/2027	1/26/2027	5	1	9	16	0	0	0	0	0	0	1	8	16	0	0	0	0	0	0	8
Residential In track	Paving	1/27/2027	2/19/2027	18	1	8	13	0	0	1	0	0	0	1	7	13	0	0	1	0	0	0	16
Residential In track	Site Prep	1/1/2028	1/14/2028	10	3	25	18	18	1	19	10	1	11	3	25	18	5	1	6	3	1	4	17
Residential In track	Grading	1/15/2028	3/3/2028	35	3	28	27	7	1	8	3	1	4	3	28	27	2	1	3	1	1	2	98
Residential In track	Utilities	3/4/2028	3/17/2028	10	1	9	16	0	0	0	0	0	0	1	9	16	0	0	0	0	0	0	15
Residential In track	Paving	3/18/2028	4/14/2028	20	1	9	15	0	0	1	0	0	0	1	9	15	0	0	1	0	0	0	21
Residential In track	Site Prep	1/1/2029	2/26/2029	41	3	25	18	18	1	19	10	1	11	3	25	18	5	1	6	3	1	4	71
Residential In track	Grading	2/27/2029	7/20/2029	104	3	28	27	9	1	10	4	1	5	3	28	27	2	1	3	1	1	2	291
Residential In track	Utilities	7/21/2029	9/17/2029	41	1	9	16	0	0	0	0	0	0	1	9	16	0	0	0	0	0	0	62
Residential In track	Paving	9/18/2029	12/28/2029	74	1	9	15	0	0	1	0	0	0	1	9	15	0	0	1	0	0	0	78
Residential In track	Site Prep	1/1/2030	1/14/2030	10	2	14	17	18	0	19	10	0	10	2	14	17	5	0	5	3	0	3	21
Residential In track	Grading	1/15/2030	3/4/2030	35	3	14	23	7	0	7	3	0	4	3	14	23	2	0	2	1	0	1	117
Residential In track	Utilities	3/5/2030	3/18/2030	10	1	4	18	0	0	0	0	0	0	1	4	18	0	0	0	0	0	0	18
Residential In track	Paving	3/19/2030	4/15/2030	20	1	7	16	0	0	0	0	0	0	1	7	16	0	0	0	0	0	0	25
Residential In track	Site Prep	1/1/2031	1/14/2031	10	2	14	17	18	0	19	10	0	10	2	14	17	5	0	5	3	0	3	21
Residential In track	Grading	1/15/2031	2/25/2031	30	3	14	23	7	0	7	3	0	4	3	14	23	2	0	2	1	0	1	100
Residential In track	Utilities	2/26/2031	3/11/2031	10	1	4	17	0	0	0	0	0	0	1	4	17	0	0	0	0	0	0	18
Residential In track	Paving	3/12/2031	4/8/2031	20	1	7	16	0	0	0	0	0	0	1	7	16	0	0	0	0	0	0	25
Residential In track	Site Prep	1/1/2033	2/28/2033	41	2	14	17	18	0	19	10	0	10	2	14	17	5	0	5	3	0	3	84
Residential In track	Grading	3/1/2033	7/25/2033	105	3	14	23	8	0	8	4	0	4	3	14	23	2	0	3	1	0	1	349
Residential In track	Utilities	7/26/2033	9/19/2033	40	1	2	7	0	0	0	0	0	0	1	2	7	0	0	0	0	0	0	39
Residential In track	Paving	9/20/2033	12/30/2033	74	1	7	16	0	0	0	0	0	0	1	7	16	0	0	0	0	0	0	92
Residential In track	Site Prep	1/1/2035	1/5/2035	5	2	10	16	18	0	19	10	0	10	2	10	16	5	0	5	3	0	3	10
Residential In track	Grading	1/6/2035	1/17/2035	8	1	6	15	7	0	7	3	0	4	1	6	15	2	0	2	1	0	1	13
Residential In track	Utilities	1/18/2035	1/24/2035	5	1	3	17	0	0	0	0	0	0	1	3	17	0	0	0	0	0	0	9
Residential In track	Paving	1/25/2035	2/19/2035	18	1	5	13	0	0	0	0	0	0	1	5	13	0	0	0	0	0	0	18

Residential In track	Site Prep	1/1/2037	1/28/2037	20	2	10	16	18	0	19	10	0	10	2	10	16	5	0	5	3	0	3	41
Residential In track	Grading	1/29/2037	4/1/2037	45	3	10	23	7	0	7	3	0	4	3	10	23	2	0	2	1	0	1	150
Residential In track	Utilities	4/2/2037	4/29/2037	20	1	3	17	0	0	0	0	0	0	1	3	17	0	0	0	0	0	0	36
Residential In track	Paving	4/30/2037	6/17/2037	35	1	5	16	0	0	0	0	0	0	1	5	16	0	0	0	0	0	0	44
Residential Vertical	Building Construction	1/1/2022	12/6/2022	242	2	18	19	1	1	2	0	1	1	2	16	19	1	1	2	0	1	1	394
Residential Vertical	Coating	12/7/2022	12/30/2022	18	271	1	2	0	0	0	0	0	0	18	1	2	0	0	0	0	0	0	3
Residential Vertical	Building Construction	1/1/2023	12/7/2023	244	3	19	24	2	1	3	1	1	1	3	17	24	2	1	3	1	1	1	604
Residential Vertical	Coating	12/8/2023	12/29/2023	16	588	1	3	0	0	0	0	0	0	40	1	3	0	0	0	0	0	0	5
Residential Vertical	Building Construction	1/1/2024	12/10/2024	247	2	14	17	0	1	1	0	1	1	2	13	17	0	1	1	0	1	1	328
Residential Vertical	Coating	12/11/2024	12/27/2024	13	164	1	2	0	0	0	0	0	0	11	1	2	0	0	0	0	0	0	2
Residential Vertical	Building Construction	1/1/2025	12/4/2025	242	2	14	18	1	1	1	0	1	1	2	13	18	1	1	1	0	1	1	389
Residential Vertical	Coating	12/5/2025	12/30/2025	18	224	1	2	0	0	0	0	0	0	15	1	2	0	0	0	0	0	0	3
Residential Vertical	Building Construction	1/1/2026	12/8/2026	244	2	15	20	1	1	2	0	1	1	2	14	20	1	1	2	0	1	1	469
Residential Vertical	Coating	12/9/2026	12/30/2026	16	393	1	2	0	0	0	0	0	0	28	1	2	0	0	0	0	0	0	3
Residential Vertical	Building Construction	1/1/2027	12/8/2027	244	2	15	20	1	1	2	0	1	1	2	14	20	1	1	2	0	1	1	473
Residential Vertical	Coating	12/9/2027	12/30/2027	16	431	1	2	0	0	0	0	0	0	30	1	2	0	0	0	0	0	0	3
Residential Vertical	Building Construction	1/1/2028	12/5/2028	242	2	15	20	2	1	2	0	1	1	2	15	20	2	1	2	0	1	1	491
Residential Vertical	Coating	12/6/2028	12/29/2028	18	318	1	2	0	0	0	0	0	0	21	1	2	0	0	0	0	0	0	4
Residential Vertical	Building Construction	1/1/2029	12/6/2029	244	1	13	16	0	1	1	0	0	1	1	13	16	0	1	1	0	0	1	305
Residential Vertical	Coating	12/7/2029	12/28/2029	16	70	1	2	0	0	0	0	0	0	5	1	2	0	0	0	0	0	0	2
Residential Vertical	Building Construction	1/1/2030	12/6/2030	244	2	10	18	1	0	1	0	0	0	2	10	18	1	0	1	0	0	0	428
Residential Vertical	Coating	12/7/2030	12/30/2030	16	408	1	2	0	0	0	0	0	0	27	1	2	0	0	0	0	0	0	3
Residential Vertical	Building Construction	1/1/2031	12/8/2031	244	2	10	19	1	0	1	0	0	1	2	10	19	1	0	1	0	0	1	494
Residential Vertical	Coating	12/9/2031	12/30/2031	16	524	1	2	0	0	0	0	0	0	36	1	2	0	0	0	0	0	0	3
Residential Vertical	Building Construction	1/1/2032	12/7/2032	244	2	11	20	2	0	2	0	0	1	2	11	20	2	0	2	0	0	1	542
Residential Vertical	Coating	12/8/2032	12/29/2032	16	557	1	2	0	0	0	0	0	0	37	1	2	0	0	0	0	0	0	4
Residential Vertical	Building Construction	1/1/2033	12/8/2033	244	2	10	19	2	0	2	0	0	1	2	10	19	2	0	2	0	0	1	524
Residential Vertical	Coating	12/9/2033	12/30/2033	16	527	1	2	0	0	0	0	0	0	35	1	2	0	0	0	0	0	0	3
Residential Vertical	Building Construction	1/1/2035	12/3/2035	241	1	8	17	0	0	0	0	0	0	1	8	17	0	0	0	0	0	0	357
Residential Vertical	Coating	12/4/2035	12/28/2035	19	137	1	2	0	0	0	0	0	0	9	1	2	0	0	0	0	0	0	3
Residential Vertical	Building Construction	1/1/2036	12/4/2036	243	1	8	17	0	0	0	0	0	0	1	8	17	0	0	0	0	0	0	364
Residential Vertical	Coating	12/5/2036	12/29/2036	17	173	1	2	0	0	0	0	0	0	12	1	2	0	0	0	0	0	0	2
Residential Vertical	Building Construction	1/1/2037	12/3/2037	241	1	8	17	0	0	0	0	0	0	1	8	17	0	0	0	0	0	0	357
Residential Vertical	Coating	12/4/2037	12/30/2037	19	137	1	2	0	0	0	0	0	0	9	1	2	0	0	0	0	0	0	3
Residential Vertical	Building Construction	1/1/2038	12/8/2038	244	1	8	17	1	0	1	0	0	0	1	8	17	1	0	1	0	0	0	409
Residential Vertical	Coating	12/9/2038	12/30/2038	16	331	1	2	0	0	0	0	0	0	22	1	2	0	0	0	0	0	0	3
Nonresidential	Site Prep	1/1/2021	1/14/2021	10	4	41	22	18	2	20	10	2	12	4	36	22	5	2	7	3	2	4	18
Nonresidential	Grading	1/15/2021	2/25/2021	30	4	46	32	7	2	9	3	2	5	4	42	32	2	2	4	1	2	3	85
Nonresidential	Site Prep	1/1/2023	1/13/2023	10	3	28	19	18	1	19	10	1	11	3	25	19	5	1	6	3	1	4	17
Nonresidential	Grading	1/14/2023	3/3/2023	35	5	49	40	13	2	15	7	2	9	5	44	40	3	2	6	2	2	4	138
Nonresidential	Paving	3/4/2023	3/31/2023	20	2	10	15	0	1	1	0	0	0	2	9	15	0	1	1	0	0	0	20
Nonresidential	Site Prep	1/1/2025	1/2/2025	2	1	11	7	6	0	6	3	0	3	1	10	7	2	0	2	1	0	1	2
Nonresidential	Grading	1/3/2025	1/8/2025	4	1	9	6	5	0	5	3	0	3	1	8	6	1	0	2	1	0	1	3
Nonresidential	Building Construction	1/9/2025	10/15/2025	200	1	11	13	0	0	1	0	0	0	1	10	13	0	0	1	0	0	0	227
Nonresidential	Paving	10/16/2025	10/29/2025	10	1	5	9	0	0	0	0	0	0	1	5	9	0	0	0	0	0	0	6
Nonresidential	Coating	10/30/2025	11/12/2025	10	104	1	2	0	0	0	0	0	0	7	1	2	0	0	0	0	0	0	1
Nonresidential	Site Prep	1/1/2027	1/1/2027	1	1	11	7	5	0	6	3	0	3	1	10	7	1	0	2	1	0	1	1
Nonresidential	Grading	1/2/2027	1/5/2027	2	1	9	6	5	0	5	3	0	3	1	8	6	1	0	2	1	0	1	1
Nonresidential	Paving	1/6/2027	1/12/2027	5	1	5	9	0	0	0	0	0	0	1	5	9	0	0	0	0	0	0	3
Nonresidential	Site Prep	1/1/2028	1/11/2028	7	3	25	18	18	1	19	10	1	11	3	25	18	5	1	6	3	1	4	12
Nonresidential	Grading	1/12/2028	2/8/2028	20	4	36	32	15	1	16	7	1	8	4	36	32	4	1	5	2	1	3	67
Nonresidential	Building Construction	2/9/2028	11/21/2028	205	2	15	19	1	1	2	0	1	1	2	15	19	1	1	2	0	1	1	387
Nonresidential	Paving	11/22/2028	12/11/2028	14	2	9	15	0	0	1	0	0	0	2	9	15	0	0	1	0	0	0	15
Nonresidential	Coating	12/12/2028	12/29/2028	14	17	1	2	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	3
Nonresidential	Site Prep	1/1/2029	1/2/2029	2	1	11	7	6	0	6	3	0	3	1	11	7	2	0	2	1	0	1	2

Nonresidential	Grading	1/3/2029	1/8/2029	4	1	9	6	5	0	5	3	0	3	1	9	6	1	0	2	1	0	1	3
Nonresidential	Building Construction	1/9/2029	10/15/2029	200	1	11	13	0	0	1	0	0	0	1	11	13	0	0	1	0	0	0	211
Nonresidential	Paving	10/16/2029	10/29/2029	10	1	5	9	0	0	0	0	0	0	1	5	9	0	0	0	0	0	0	6
Nonresidential	Coating	10/30/2029	11/12/2029	10	70	1	2	0	0	0	0	0	0	5	1	2	0	0	0	0	0	0	1
Nonresidential	Site Prep	1/1/2030	1/7/2030	5	2	14	17	18	0	19	10	0	10	2	14	17	5	0	5	3	0	3	10
Nonresidential	Grading	1/8/2030	1/17/2030	8	2	8	15	7	0	7	3	0	4	2	8	15	2	0	2	1	0	1	13
Nonresidential	Building Construction	1/18/2030	11/13/2030	214	2	11	19	1	0	1	0	0	0	2	11	19	1	0	1	0	0	0	423
Nonresidential	Paving	11/14/2030	12/6/2030	17	2	6	13	0	0	0	0	0	0	2	6	13	0	0	0	0	0	0	18
Nonresidential	Coating	12/7/2030	12/31/2030	17	20	1	2	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	3
Nonresidential	Site Prep	1/1/2031	1/7/2031	5	2	14	17	18	0	19	10	0	10	2	14	17	5	0	5	3	0	3	10
Nonresidential	Grading	1/8/2031	1/16/2031	7	2	8	15	7	0	7	3	0	4	2	8	15	2	0	2	1	0	1	11
Nonresidential	Building Construction	1/17/2031	11/12/2031	214	2	10	18	1	0	1	0	0	0	2	10	18	1	0	1	0	0	0	397
Nonresidential	Paving	11/13/2031	12/5/2031	17	1	6	13	0	0	0	0	0	0	1	6	13	0	0	0	0	0	0	18
Nonresidential	Coating	12/6/2031	12/30/2031	17	21	1	2	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	3
Nonresidential	Site Prep	1/1/2032	1/9/2032	7	2	14	17	18	0	19	10	0	10	2	14	17	5	0	5	3	0	3	14
Nonresidential	Grading	1/10/2032	2/6/2032	20	3	14	23	9	0	9	4	0	4	3	14	23	2	0	3	1	0	1	67
Nonresidential	Building Construction	2/7/2032	11/19/2032	205	1	9	17	0	0	1	0	0	0	1	9	17	0	0	1	0	0	0	334
Nonresidential	Paving	11/20/2032	12/9/2032	14	1	7	16	0	0	0	0	0	0	1	7	16	0	0	0	0	0	0	17
Nonresidential	Coating	12/10/2032	12/29/2032	14	101	1	2	0	0	0	0	0	0	7	1	2	0	0	0	0	0	0	2
Nonresidential	Site Prep	1/1/2033	1/11/2033	7	2	14	17	18	0	19	10	0	10	2	14	17	5	0	5	3	0	3	14
Nonresidential	Grading	1/12/2033	2/8/2033	20	4	18	28	15	1	16	7	1	8	4	18	28	4	1	5	2	1	2	79
Nonresidential	Building Construction	2/9/2033	11/22/2033	205	2	12	20	2	0	2	0	0	1	2	12	20	2	0	2	0	0	1	492
Nonresidential	Paving	11/23/2033	12/12/2033	14	1	7	16	0	0	0	0	0	0	1	7	16	0	0	0	0	0	0	17
Nonresidential	Coating	12/13/2033	12/30/2033	14	12	1	2	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	3
Nonresidential	Site Prep	1/1/2034	1/12/2034	9	2	14	17	18	0	19	10	0	10	2	14	17	5	0	5	3	0	3	18
Nonresidential	Grading	1/13/2034	2/6/2034	17	2	8	15	7	0	7	3	0	4	2	8	15	2	0	2	1	0	1	27
Nonresidential	Building Construction	2/7/2034	11/10/2034	199	2	12	19	1	0	2	0	0	1	2	12	19	1	0	2	0	0	1	462
Nonresidential	Paving	11/11/2034	12/5/2034	17	1	7	16	0	0	0	0	0	0	1	7	16	0	0	0	0	0	0	21
Nonresidential	Coating	12/6/2034	12/28/2034	17	123	1	2	0	0	0	0	0	0	8	1	2	0	0	0	0	0	0	3
Nonresidential	Site Prep	1/1/2035	1/9/2035	7	2	10	16	18	0	19	10	0	10	2	10	16	5	0	5	3	0	3	14
Nonresidential	Grading	1/10/2035	2/6/2035	20	3	10	23	9	0	9	4	0	4	3	10	23	2	0	3	1	0	1	66
Nonresidential	Building Construction	2/7/2035	11/20/2035	205	2	14	22	3	0	3	1	0	1	2	14	22	3	0	3	1	0	1	646
Nonresidential	Paving	11/21/2035	12/10/2035	14	1	5	16	0	0	0	0	0	0	1	5	16	0	0	0	0	0	0	17
Nonresidential	Coating	12/11/2035	12/28/2035	14	100	1	2	0	0	0	0	0	0	7	1	2	0	0	0	0	0	0	4
Nonresidential	Site Prep	1/1/2036	1/1/2036	1	0	2	4	1	0	1	0	0	0	0	2	4	0	0	0	0	0	0	1
Nonresidential	Grading	1/2/2036	1/3/2036	2	1	3	8	1	0	1	0	0	0	1	3	8	0	0	0	0	0	0	1
Nonresidential	Building Construction	1/4/2036	5/22/2036	100	1	3	7	0	0	0	0	0	0	1	3	7	0	0	0	0	0	0	64
Nonresidential	Paving	5/23/2036	5/29/2036	5	1	3	8	0	0	0	0	0	0	1	3	8	0	0	0	0	0	0	3
Nonresidential	Coating	5/30/2036	6/5/2036	5	42	1	2	0	0	0	0	0	0	3	1	2	0	0	0	0	0	0	1
Nonresidential	Site Prep	1/1/2037	1/14/2037	10	2	10	16	18	0	19	10	0	10	2	10	16	5	0	5	3	0	3	20
Nonresidential	Grading	1/15/2037	2/11/2037	20	1	6	15	6	0	7	3	0	4	1	6	15	2	0	2	1	0	1	32
Nonresidential	Paving	2/12/2037	3/11/2037	20	1	5	16	0	0	0	0	0	0	1	5	16	0	0	0	0	0	0	25
Nonresidential	Site Prep	1/1/2038	1/12/2038	8	2	10	16	18	0	19	10	0	10	2	10	16	5	0	5	3	0	3	16
Nonresidential	Grading	1/13/2038	2/10/2038	21	4	15	32	15	0	15	7	0	7	4	15	32	4	0	4	2	0	2	90
Nonresidential	Building Construction	2/11/2038	11/18/2038	201	2	11	19	2	0	2	0	0	1	2	11	19	2	0	2	0	0	1	465
Nonresidential	Paving	11/19/2038	12/9/2038	15	1	5	16	0	0	0	0	0	0	1	5	16	0	0	0	0	0	0	19
Nonresidential	Coating	12/10/2038	12/30/2038	15	70	1	2	0	0	0	0	0	0	5	1	2	0	0	0	0	0	0	3
Rock Separation	Site Prep	6/1/2021	8/9/2021	50	14	238	112	8	5	13	3	5	8	14	225	112	2	5	8	1	5	6	667
HWY 50 to Marble Lake Blvd. - Phase I	Grubbing/Land Clearing	1/1/2021	1/23/2021	22	1	9	6	37	0	37	8	0	8	1	9	6	9	0	10	2	0	2	0
HWY 50 to Marble Lake Blvd. - Phase I	Grading/Excavation	2/1/2021	5/22/2021	110	5	53	40	37	2	39	8	2	10	5	48	40	9	2	11	2	2	4	459
HWY 50 to Marble Lake Blvd. - Phase I	Drainage/Utilities/Sub-Grade	7/4/2021	8/28/2021	55	4	42	34	37	2	39	8	2	9	4	38	34	9	2	11	2	2	4	188
HWY 50 to Marble Lake Blvd. - Phase I	Paving	9/19/2021	10/22/2021	33	1	15	17	0	1	1	0	1	1	1	13	17	0	1	1	0	1	1	46
Marble Lake Boulevard	Grubbing/Land Clearing	1/1/2021	1/23/2021	22	2	19	12	51	1	51	11	1	11	2	17	12	13	1	13	3	1	3	0
Marble Lake Boulevard	Grading/Excavation	2/1/2021	5/22/2021	110	8	91	63	51	4	54	11	3	14	8	82	63	13	4	16	3	3	6	770
Marble Lake Boulevard	Drainage/Utilities/Sub-Grade	7/4/2021	8/28/2021	55	7	71	59	51	3	54	11	3	13	7	64	59	13	3	16	3	3	6	320

Marble Lake Boulevard	Paving	9/19/2021	10/22/2021	33	2	23	27	0	1	1	0	1	1	2	21	27	0	1	1	0	1	1	72
Lime Rock Valley Rd from Marble Lake Blvd - Phase I	Grubbing/Land Clearing	1/1/2022	1/23/2022	22	1	8	6	16	0	16	3	0	4	1	7	6	4	0	4	1	0	1	0
Lime Rock Valley Rd from Marble Lake Blvd - Phase I	Grading/Excavation	2/1/2022	5/22/2022	110	4	45	38	16	2	18	3	2	5	4	40	38	4	2	6	1	2	3	457
Lime Rock Valley Rd from Marble Lake Blvd - Phase I	Drainage/Utilities/Sub-Grade	7/4/2022	8/28/2022	55	4	36	33	16	2	18	3	1	5	4	33	33	4	2	6	1	1	2	187
Lime Rock Valley Rd from Marble Lake Blvd - Phase I	Paving	9/19/2022	10/22/2022	33	1	13	17	0	1	1	0	1	1	1	12	17	0	1	1	0	1	1	44
Lime Rock Valley Rd to Deer Creek Rd - Phase I	Grubbing/Land Clearing	1/1/2022	1/23/2022	22	1	16	12	53	1	54	11	1	12	1	15	12	13	1	14	3	1	3	0
Lime Rock Valley Rd to Deer Creek Rd - Phase I	Grading/Excavation	2/1/2022	5/22/2022	110	7	78	60	53	3	57	11	3	14	7	70	60	13	3	17	3	3	6	768
Lime Rock Valley Rd to Deer Creek Rd - Phase I	Drainage/Utilities/Sub-Grade	7/4/2022	8/28/2022	55	6	62	57	53	3	56	11	3	14	6	56	57	13	3	16	3	3	5	320
Lime Rock Valley Rd to Deer Creek Rd - Phase I	Paving	9/19/2022	10/22/2022	33	2	20	27	0	1	1	0	1	1	2	18	27	0	1	1	0	1	1	72
Bass Lake Road Interim Interchange	Grubbing/Land Clearing	1/1/2023	2/14/2023	44	1	7	6	5	0	5	1	0	1	1	6	6	1	0	1	0	0	0	0
Bass Lake Road Interim Interchange	Grading/Excavation	3/3/2023	10/9/2023	220	4	40	37	5	2	6	1	2	2	4	36	37	1	2	3	0	2	2	914
Bass Lake Road Interim Interchange	Drainage/Utilities/Sub-Grade	1/2/2024	4/21/2024	110	3	31	32	5	1	6	1	1	2	3	28	32	1	1	2	0	1	1	374
Bass Lake Road Interim Interchange	Paving	6/3/2024	8/8/2024	66	1	11	17	0	1	1	0	1	1	1	10	17	0	1	1	0	1	1	90
Marble Valley Parkway - Marble Lake Blvd to PL	Grubbing/Land Clearing	1/1/2031	1/23/2031	22	1	3	6	15	0	15	3	0	3	1	3	6	4	0	4	1	0	1	0
Marble Valley Parkway - Marble Lake Blvd to PL	Grading/Excavation	2/1/2031	5/22/2031	110	4	16	33	15	1	15	3	1	4	4	16	33	4	1	4	1	1	1	530
Marble Valley Parkway - Marble Lake Blvd to PL	Drainage/Utilities/Sub-Grade	7/4/2031	8/28/2031	55	3	16	27	15	1	15	3	0	4	3	16	27	4	1	4	1	0	1	208
Marble Valley Parkway - Marble Lake Blvd to PL	Paving	9/19/2031	10/22/2031	33	1	8	17	0	0	0	0	0	0	1	8	17	0	0	0	0	0	0	50
Marble Valley Parkway - PL to Crazy Horse	Grubbing/Land Clearing	1/1/2031	1/23/2031	22	1	3	6	22	0	22	5	0	5	1	3	6	6	0	6	1	0	1	0
Marble Valley Parkway - PL to Crazy Horse	Grading/Excavation	2/1/2031	5/22/2031	110	4	16	33	22	1	23	5	1	5	4	16	33	6	1	6	1	1	2	530
Marble Valley Parkway - PL to Crazy Horse	Drainage/Utilities/Sub-Grade	7/4/2031	8/28/2031	55	3	16	27	22	1	23	5	0	5	3	16	27	6	1	6	1	0	2	208
Marble Valley Parkway - PL to Crazy Horse	Paving	9/19/2031	10/22/2031	33	1	8	17	0	0	0	0	0	0	1	8	17	0	0	0	0	0	0	50
Lime Rock Valley Rd to PL - Phase II	Grubbing/Land Clearing	1/1/2029	1/23/2029	22	1	6	6	38	0	39	8	0	8	1	6	6	10	0	10	2	0	2	0
Lime Rock Valley Rd to PL - Phase II	Grading/Excavation	2/1/2029	5/22/2029	110	3	32	35	38	1	40	8	1	9	3	32	35	10	1	11	2	1	3	451
Lime Rock Valley Rd to PL - Phase II	Drainage/Utilities/Sub-Grade	7/4/2029	8/28/2029	55	3	27	30	38	1	39	8	1	9	3	27	30	10	1	11	2	1	3	185
Lime Rock Valley Rd to PL - Phase II	Paving	9/19/2029	10/22/2029	33	1	10	16	0	1	1	0	0	0	1	10	16	0	1	1	0	0	0	44
Cambridge Interim Interchange Improvements (square feet)	Grubbing/Land Clearing	1/1/2029	2/14/2029	44	1	6	6	6	0	6	1	0	1	1	6	6	1	0	2	0	0	1	0
Cambridge Interim Interchange Improvements (square feet)	Grading/Excavation	3/3/2029	10/9/2029	220	3	32	35	6	1	7	1	1	2	3	32	35	1	1	3	0	1	1	903
Cambridge Interim Interchange Improvements (square feet)	Drainage/Utilities/Sub-Grade	1/2/2030	4/22/2030	110	3	16	27	6	1	6	1	0	2	3	16	27	1	1	2	0	0	1	417
Cambridge Interim Interchange Improvements (square feet)	Paving	6/4/2030	8/9/2030	66	1	8	17	0	0	0	0	0	0	1	8	17	0	0	0	0	0	0	102
HWY 50 to Marble Lake Blvd. - Phase II	Grubbing/Land Clearing	1/1/2035	1/23/2035	22	1	2	6	37	0	37	8	0	8	1	2	6	9	0	9	2	0	2	0
HWY 50 to Marble Lake Blvd. - Phase II	Grading/Excavation	2/1/2035	5/22/2035	110	4	12	32	37	0	37	8	0	8	4	12	32	9	0	10	2	0	2	529
HWY 50 to Marble Lake Blvd. - Phase II	Drainage/Utilities/Sub-Grade	7/4/2035	8/28/2035	55	3	13	27	37	0	37	8	0	8	3	13	27	9	0	10	2	0	2	207
HWY 50 to Marble Lake Blvd. - Phase II	Paving	9/19/2035	10/22/2035	33	1	7	17	0	0	0	0	0	0	1	7	17	0	0	0	0	0	0	50
Marble Valley - Off site - frontage	Grubbing/Land Clearing	1/1/2037	1/23/2037	22	1	2	6	25	0	25	5	0	5	1	2	6	6	0	6	1	0	1	0
Marble Valley - Off site - frontage	Grading/Excavation	2/1/2037	5/22/2037	110	4	12	32	25	0	25	5	0	6	4	12	32	6	0	7	1	0	2	528
Marble Valley - Off site - frontage	Drainage/Utilities/Sub-Grade	7/4/2037	8/28/2037	55	3	13	27	25	0	25	5	0	5	3	13	27	6	0	7	1	0	2	207
Marble Valley - Off site - frontage	Paving	9/19/2037	10/22/2037	33	1	7	17	0	0	0	0	0	0	1	7	17	0	0	0	0	0	0	50
24" Potable Water Transmission Line -Drainage	Grubbing/Land Clearing	1/1/2022	2/14/2022	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24" Potable Water Transmission Line -Drainage	Grading/Excavation	1/1/2022	8/9/2022	220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24" Potable Water Transmission Line -Drainage	Drainage/Utilities/Sub-Grade	1/1/2022	4/21/2022	110	4	35	34	33	2	34	7	1	8	4	32	34	8	2	10	2	1	3	1,579
24" Potable Water Transmission Line -Drainage	Paving	9/2/2023	11/7/2023	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase I sewer improvements -Drainage	Grubbing/Land Clearing	1/1/2022	2/14/2022	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase I sewer improvements -Drainage	Grading/Excavation	1/1/2022	8/9/2022	220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase I sewer improvements -Drainage	Drainage/Utilities/Sub-Grade	1/1/2022	4/21/2022	110	4	35	33	8	2	9	2	1	3	4	32	33	2	2	4	0	1	2	1,515
Phase I sewer improvements -Drainage	Paving	9/2/2023	11/7/2023	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase III sewer improvements -Drainage	Grubbing/Land Clearing	1/1/2029	2/14/2029	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase III sewer improvements -Drainage	Grading/Excavation	1/1/2029	8/9/2029	220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase III sewer improvements -Drainage	Drainage/Utilities/Sub-Grade	1/1/2029	4/21/2029	110	3	23	29	3	1	4	1	1	1	3	23	29	1	1	2	0	1	1	1,555
Phase III sewer improvements -Drainage	Paving	9/2/2030	11/7/2030	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase IV sewer improvements -Drainage	Grubbing/Land Clearing	1/1/2033	2/14/2033	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase IV sewer improvements -Drainage	Grading/Excavation	1/1/2033	8/9/2033	220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phase IV sewer improvements -Drainage	Drainage/Utilities/Sub-Grade	1/1/2033	4/21/2033	110	3	16	27	15	1	15	3	0	4	3	16	27	4	1	4	1	0	1	1,681
Phase IV sewer improvements -Drainage	Paving	9/2/2034	11/7/2034	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Operation CalEEMod

VMVSP Annual Operation - 2023 - El Dorado-Mountain County County, Summer

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	35.00	Dwelling Unit	2.19	35,000.00	100
Single Family Housing	125.00	Dwelling Unit	40.58	225,000.00	358

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Min 7% better than 2016 code (model default) per 2019 standard

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	19.25	21.00
tblFireplaces	NumberGas	68.75	89.00
tblFireplaces	NumberWood	12.25	14.00
tblFireplaces	NumberWood	43.75	57.00
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	WD_TR	5.81	8.93

tblVehicleTrips	WD_TR	9.52	8.93

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.5417	3.1547	14.4808	0.0199		0.3158	0.3158		0.3158	0.3158	0	3,856.71	3,856.71	0.0963	0.0703	3,880.06
Energy	0.0472	0.4037	0.1718	2.58E-03		0.0326	0.0326		0.0326	0.0326		515.3577	515.3577	9.88E-03	9.45E-03	518.4202
Mobile	2.8987	7.7258	30.7621	0.0951	8.6626	0.0845	8.7472	2.3143	0.079	2.3933		9,545.81	9,545.81	0.2803		9,552.82
Total	**11.4876**	**11.2842**	**45.4147**	**0.1176**	**8.6626**	**0.433**	**9.0956**	**2.3143**	**0.4275**	**2.7418**	**0**	**13,917.87**	**13,917.87**	**0.3865**	**0.0797**	**13,951.29**

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	312.55	312.55	312.55	895,313	895,313
Single Family Housing	1,116.25	1,116.25	1116.25	3,197,546	3,197,546
Total	1,428.80	1,428.80	1,428.80	4,092,858	4,092,858

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.536606	0.037513	0.225040	0.130667	0.027584	0.005847	0.017105	0.009587	0.001620	0.001093	0.005204	0.000792	0.001342
Single Family Housing	0.536606	0.037513	0.225040	0.130667	0.027584	0.005847	0.017105	0.009587	0.001620	0.001093	0.005204	0.000792	0.001342

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	0.483186	5.2100e-	0.0445	0.0190	2.8000e-		3.6000e-	3.6000e-		3.6000e-	3.6000e-		56.8454	56.8454	1.0900e-	1.0400e-	57.1832
Single Family	3.89735	0.0420	0.3592	0.1528	2.2900e-		0.0290	0.0290		0.0290	0.0290		458.5123	458.5123	8.7900e-	8.4100e-	461.2370
Total		**0.0472**	**0.4037**	**0.1718**	**2.5700e-**		**0.0326**	**0.0326**		**0.0326**	**0.0326**		**515.3577**	**515.3577**	**9.8800e-**	**9.4500e-**	**518.4202**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	2.2286					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	5.5640					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.3514	3.0025	1.2777	0.0192		0.2428	0.2428		0.2428	0.2428	0.0000	3,832.941	3,832.9412	0.0735	0.0703	3,855.718
Landscaping	0.3978	0.1522	13.2032	7.0000e-		0.0731	0.0731		0.0731	0.0731		23.7684	23.7684	0.0229		24.3398
Total	**8.5417**	**3.1547**	**14.4808**	**0.0199**		**0.3158**	**0.3158**		**0.3158**	**0.3158**	**0.0000**	**3,856.709**	**3,856.7096**	**0.0963**	**0.0703**	**3,880.058**

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VMVSP Annual Operation - 2024
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	6.00	Acre	6.00	261,360.00	0
Apartments Low Rise	209.00	Dwelling Unit	13.06	209,000.00	598
Condo/Townhouse	75.00	Dwelling Unit	4.69	75,000.00	215
Single Family Housing	265.00	Dwelling Unit	86.04	477,000.00	758

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Min 7% better than 2016 code (model default) per 2019 standard

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	114.95	128.00
tblFireplaces	NumberGas	41.25	46.00
tblFireplaces	NumberGas	145.75	189.00
tblFireplaces	NumberWood	73.15	81.00
tblFireplaces	NumberWood	26.25	29.00
tblFireplaces	NumberWood	92.75	120.00
tblVehicleTrips	ST_TR	7.16	2.71

tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	9.52	8.93

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	25.4632	10.3585	49.4607	0.0652		1.0463	1.0463		1.0463	1.0463	0.0000	12,639.20	12,639.203	0.3189	0.2302	12,715.78
Energy	0.1630	1.3928	0.5927	8.8900e-		0.1126	0.1126		0.1126	0.1126		1,777.985	1,777.9859	0.0341	0.0326	1,788.551
Mobile	6.8603	18.0372	72.3145	0.2311	21.8309	0.2025	22.0335	5.8311	0.1891	6.0202		23,195.61	23,195.613	0.6510		23,211.88
Total	**32.4865**	**29.7884**	**122.3678**	**0.3052**	**21.8309**	**1.3614**	**23.1924**	**5.8311**	**1.3480**	**7.1791**	**0.0000**	**37,612.80**	**37,612.802**	**1.0041**	**0.2628**	**37,716.22**

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	566.15	566.15	566.15	1,621,769	1,621,769
Condo/Townhouse	669.69	669.69	669.69	1,918,367	1,918,367
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	2,366.25	2,366.25	2366.25	6,778,231	6,778,231
Total	3,602.10	3,602.10	3,602.10	10,318,367	10,318,367

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.542923	0.036563	0.224970	0.128073	0.025383	0.005498	0.017257	0.009562	0.001621	0.001069	0.005080	0.000783	0.001219

Condo/Townhouse	0.542923	0.036563	0.224970	0.128073	0.025383	0.005498	0.017257	0.009562	0.001621	0.001069	0.005080	0.000783	0.001219
Other Asphalt Surfaces	0.542923	0.036563	0.224970	0.128073	0.025383	0.005498	0.017257	0.009562	0.001621	0.001069	0.005080	0.000783	0.001219
Single Family Housing	0.542923	0.036563	0.224970	0.128073	0.025383	0.005498	0.017257	0.009562	0.001621	0.001069	0.005080	0.000783	0.001219

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low	5.81509	0.0627	0.5359	0.2280	3.4200e-		0.0433	0.0433		0.0433	0.0433		684.1282	684.1282	0.0131	0.0125	688.1936
Condo/Townhouse	1.0354	0.0112	0.0954	0.0406	6.1000e-		7.7100e-	7.7100e-		7.7100e-	7.7100e-		121.8116	121.8116	2.3300e-	2.2300e-	122.5355
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	8.26239	0.0891	0.7614	0.3240	4.8600e-		0.0616	0.0616		0.0616	0.0616		972.0461	972.0461	0.0186	0.0178	977.8224
Total		**0.1630**	**1.3928**	**0.5927**	**8.8900e-**		**0.1126**	**0.1126**		**0.1126**	**0.1126**		**1,777.9859**	**1,777.985**	**0.0341**	**0.0326**	**1,788.5515**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	6.5728					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	16.3780					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.1511	9.8368	4.1859	0.0628		0.7953	0.7953		0.7953	0.7953	0.0000	12,557.64	12,557.647	0.2407	0.2302	12,632.27
Landscaping	1.3614	0.5216	45.2748	2.3900e-		0.2509	0.2509		0.2509	0.2509		81.5565	81.5565	0.0783		83.5129
Total	**25.4632**	**10.3585**	**49.4606**	**0.0652**		**1.0463**	**1.0463**		**1.0463**	**1.0463**	**0.0000**	**12,639.20**	**12,639.203**	**0.3189**	**0.2302**	**12,715.78**

VMVSP Annual Operation - 2025 - El Dorado-Mountain County County, Summer

VMVSP Annual Operation - 2025
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	6.00	Acre	6.00	261,360.00	0
Apartments Low Rise	209.00	Dwelling Unit	13.06	209,000.00	598
Condo/Townhouse	75.00	Dwelling Unit	4.69	75,000.00	215
Single Family Housing	328.00	Dwelling Unit	106.49	590,400.00	938

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Water And Wastewater -
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Min 7% better than 2016 code (model default) per 2019 standard

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	114.95	128.00
tblFireplaces	NumberGas	41.25	46.00
tblFireplaces	NumberGas	180.40	234.00
tblFireplaces	NumberWood	73.15	81.00
tblFireplaces	NumberWood	26.25	29.00
tblFireplaces	NumberWood	114.80	149.00

tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	9.52	8.93

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	29.1589	11.6454	55.1518	0.0733		1.1745	1.1745		1.1745	1.1745	0	14,215.62	14,215.62	0.3578	0.259	14,301.73
Energy	0.1842	1.5738	0.6697	0.0101		0.1272	0.1272		0.1272	0.1272		2,009.08	2,009.08	0.0385	0.0368	2,021.02
Mobile	7.4976	19.3853	78.1906	0.2574	25.2349	0.2234	25.4583	6.739	0.2084	6.9474		25,837.72	25,837.72	0.6977		25,855.17
Total	**36.8406**	**32.6045**	**134.0121**	**0.3407**	**25.2349**	**1.5251**	**26.76**	**6.739**	**1.5101**	**8.2491**	**0**	**42,062.42**	**42,062.42**	**1.094**	**0.2958**	**42,177.92**

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	566.39	566.39	566.39	1,622,448	1,622,448
Condo/Townhouse	669.75	669.75	669.75	1,918,527	1,918,527
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	2,929.04	2,929.04	2929.04	8,390,360	8,390,360
Total	4,165.18	4,165.18	4,165.18	11,931,336	11,931,336

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH

Apartments Low Rise	0.548420	0.035778	0.224960	0.125817	0.023380	0.005183	0.017399	0.009541	0.001620	0.001043	0.004971	0.000775	0.001113
Condo/Townhouse	0.548420	0.035778	0.224960	0.125817	0.023380	0.005183	0.017399	0.009541	0.001620	0.001043	0.004971	0.000775	0.001113
Other Asphalt Surfaces	0.548420	0.035778	0.224960	0.125817	0.023380	0.005183	0.017399	0.009541	0.001620	0.001043	0.004971	0.000775	0.001113
Single Family Housing	0.548420	0.035778	0.224960	0.125817	0.023380	0.005183	0.017399	0.009541	0.001620	0.001043	0.004971	0.000775	0.001113

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low	5.81509	0.0627	0.5359	0.2280	3.4200e-		0.0433	0.0433		0.0433	0.0433		684.1282	684.1282	0.0131	0.0125	688.1936
Condo/Townhouse	1.0354	0.0112	0.0954	0.0406	6.1000e-		7.7100e-	7.7100e-		7.7100e-	7.7100e-		121.8116	121.8116	2.3300e-	2.2300e-	122.5355
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	10.2267	0.1103	0.9425	0.4011	6.0200e-		0.0762	0.0762		0.0762	0.0762		1,203.1362	1,203.136	0.0231	0.0221	1,210.2859
Total		**0.1842**	**1.5738**	**0.6697**	**0.0101**		**0.1272**	**0.1272**		**0.1272**	**0.1272**		**2,009.0760**	**2,009.076**	**0.0385**	**0.0368**	**2,021.0150**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	7.5448					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	18.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.2948	11.0644	4.7082	0.0706		0.8946	0.8946		0.8946	0.8946	0.0000	14,124.70	14,124.705	0.2707	0.2590	14,208.64
Landscaping	1.5146	0.5811	50.4436	2.6700e-		0.2799	0.2799		0.2799	0.2799		90.9153	90.9153	0.0871		93.0919
Total	**29.1588**	**11.6454**	**55.1518**	**0.0733**		**1.1745**	**1.1745**		**1.1745**	**1.1745**	**0.0000**	**14,215.62**	**14,215.621**	**0.3578**	**0.2590**	**14,301.73**

VMVSP Annual Operation - 2026 - El Dorado-Mountain County County, Summer

VMVSP Annual Operation - 2026
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	209.00	Dwelling Unit	13.06	209,000.00	598
Condo/Townhouse	140.00	Dwelling Unit	8.75	140,000.00	400
Single Family Housing	411.00	Dwelling Unit	133.44	739,800.00	1175
Other Asphalt Surfaces	6.00	Acre	6.00	261,360.00	0
Strip Mall	75.00	1000sqft	1.72	75,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2026
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Min 7% better than 2016 code (model default) per 2019 standard

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	114.95	128.00
tblFireplaces	NumberGas	77.00	86.00
tblFireplaces	NumberGas	226.05	293.00
tblFireplaces	NumberWood	73.15	81.00
tblFireplaces	NumberWood	49.00	54.00
tblFireplaces	NumberWood	143.85	186.00

tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	44.32	21.03

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	38.3455	14.4567	68.4945	0.091		1.4581	1.4581		1.4581	1.4581	0	17,647.04	17,647.04	0.4442	0.3215	17,753.94
Energy	0.2366	2.03	0.9198	0.0129		0.1635	0.1635		0.1635	0.1635		2,581.19	2,581.19	0.0495	0.0473	2,596.53
Mobile	11.6846	28.5852	113.9556	0.3796	38.3647	0.3258	38.6905	10.2436	0.3037	10.5474		38,114.32	38,114.32	1.0055		38,139.46
Total	**50.2666**	**45.0719**	**183.3699**	**0.4835**	**38.3647**	**1.9474**	**40.3121**	**10.2436**	**1.9253**	**12.169**	**0**	**58,342.55**	**58,342.55**	**1.4992**	**0.3688**	**58,489.92**

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	566.15	566.15	566.15	1,621,769	1,621,769
Condo/Townhouse	1,250.10	1,250.10	1250.10	3,580,952	3,580,952
Single Family Housing	3,669.92	3,669.92	3669.92	10,512,653	10,512,653
Other Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	1,577.21	1,577.21	1577.21	2,428,963	2,428,963
Total	7,063.39	7,063.39	7,063.39	18,144,337	18,144,337

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.552995	0.035126	0.225007	0.123925	0.021624	0.004925	0.017556	0.009519	0.001625	0.001021	0.004886	0.000770	0.001022
Condo/Townhouse	0.552995	0.035126	0.225007	0.123925	0.021624	0.004925	0.017556	0.009519	0.001625	0.001021	0.004886	0.000770	0.001022
Single Family Housing	0.552995	0.035126	0.225007	0.123925	0.021624	0.004925	0.017556	0.009519	0.001625	0.001021	0.004886	0.000770	0.001022
Other Asphalt Surfaces	0.552995	0.035126	0.225007	0.123925	0.021624	0.004925	0.017556	0.009519	0.001625	0.001021	0.004886	0.000770	0.001022
Strip Mall	0.552995	0.035126	0.225007	0.123925	0.021624	0.004925	0.017556	0.009519	0.001625	0.001021	0.004886	0.000770	0.001022

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low	5.81509	0.0627	0.5359	0.2280	3.4200e-		0.0433	0.0433		0.0433	0.0433		684.1282	684.1282	0.0131	0.0125	688.1936
Condo/Townhouse	1.93274	0.0208	0.1781	0.0758	1.1400e-		0.0144	0.0144		0.0144	0.0144		227.3817	227.3817	4.3600e-	4.1700e-	228.7329
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	12.8145	0.1382	1.1809	0.5025	7.5400e-		0.0955	0.0955		0.0955	0.0955		1,507.5884	1,507.588	0.0289	0.0276	1,516.5473
Strip Mall	1.3778	0.0149	0.1351	0.1135	8.1000e-		0.0103	0.0103		0.0103	0.0103		162.0943	162.0943	3.1100e-	2.9700e-	163.0575
Total		**0.2366**	**2.0300**	**0.9198**	**0.0129**		**0.1635**	**0.1635**		**0.1635**	**0.1635**		**2,581.1925**	**2,581.192**	**0.0495**	**0.0473**	**2,596.5313**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	9.8587					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	24.9979					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6073	13.7351	5.8447	0.0877		1.1105	1.1105		1.1105	1.1105	0.0000	17,534.11	17,534.117	0.3361	0.3215	17,638.31
Landscaping	1.8816	0.7216	62.6498	3.3100e-		0.3476	0.3476		0.3476	0.3476		112.9175	112.9175	0.1082		115.6215
Total	**38.3454**	**14.4567**	**68.4945**	**0.0910**		**1.4581**	**1.4581**		**1.4581**	**1.4581**	**0.0000**	**17,647.03**	**17,647.035**	**0.4442**	**0.3215**	**17,753.93**

VMVSP Annual Operation - 2027 - El Dorado-Mountain County County, Summer

VMVSP Annual Operation - 2027
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	6.00	Acre	6.00	261,360.00	0
Apartments Low Rise	209.00	Dwelling Unit	13.06	209,000.00	598
Condo/Townhouse	280.00	Dwelling Unit	17.50	280,000.00	801
Single Family Housing	519.00	Dwelling Unit	168.51	934,200.00	1484
Strip Mall	75.00	1000sqft	1.72	75,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2027
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Min 7% better than 2016 code (model default) per 2019 standard

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	114.95	128.00
tblFireplaces	NumberGas	154.00	171.00
tblFireplaces	NumberGas	285.45	370.00
tblFireplaces	NumberWood	73.15	81.00
tblFireplaces	NumberWood	98.00	109.00
tblFireplaces	NumberWood	181.65	235.00

tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	44.32	21.03

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	49.498	19.1046	90.8131	0.1202		1.9283	1.9283		1.9283	1.9283	0	23,316.82	23,316.82	0.5875	0.4247	23,458.07
Energy	0.2938	2.5185	1.1277	0.016		0.203	0.203		0.203	0.203		3,204.73	3,204.73	0.0614	0.0588	3,223.77
Mobile	14.6723	35.7349	144.0433	0.4955	51.7627	0.4102	52.1729	13.8188	0.382	14.2009		49,758.26	49,758.26	1.262		49,789.81
Total	**64.4641**	**57.358**	**235.9841**	**0.6318**	**51.7627**	**2.5414**	**54.3041**	**13.8188**	**2.5133**	**16.3321**	**0**	**76,279.81**	**76,279.81**	**1.9109**	**0.4835**	**76,471.66**

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	566.15	566.15	566.15	1,621,769	1,621,769
Condo/Townhouse	2,500.19	2,500.19	2500.19	7,161,905	7,161,905
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	4,634.28	4,634.28	4634.28	13,275,102	13,275,102
Strip Mall	1,577.21	1,577.21	1577.21	2,428,963	2,428,963
Total	9,277.84	9,277.84	9,277.84	24,487,738	24,487,738

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3

Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.557019	0.034577	0.225137	0.122292	0.020027	0.004692	0.017649	0.009477	0.001627	0.000999	0.004800	0.000764	0.000939
Condo/Townhouse	0.557019	0.034577	0.225137	0.122292	0.020027	0.004692	0.017649	0.009477	0.001627	0.000999	0.004800	0.000764	0.000939
Other Asphalt Surfaces	0.557019	0.034577	0.225137	0.122292	0.020027	0.004692	0.017649	0.009477	0.001627	0.000999	0.004800	0.000764	0.000939
Single Family Housing	0.557019	0.034577	0.225137	0.122292	0.020027	0.004692	0.017649	0.009477	0.001627	0.000999	0.004800	0.000764	0.000939
Strip Mall	0.557019	0.034577	0.225137	0.122292	0.020027	0.004692	0.017649	0.009477	0.001627	0.000999	0.004800	0.000764	0.000939

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low	5.81509	0.0627	0.5359	0.2280	3.4200e-		0.0433	0.0433		0.0433	0.0433		684.1282	684.1282	0.0131	0.0125	688.1936
Condo/Townhouse	3.86549	0.0417	0.3562	0.1516	2.2700e-		0.0288	0.0288		0.0288	0.0288		454.7633	454.7633	8.7200e-	8.3400e-	457.4657
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	16.1818	0.1745	1.4913	0.6346	9.5200e-		0.1206	0.1206		0.1206	0.1206		1,903.7430	1,903.743	0.0365	0.0349	1,915.0560
Strip Mall	1.3778	0.0149	0.1351	0.1135	8.1000e-		0.0103	0.0103		0.0103	0.0103		162.0943	162.0943	3.1100e-	2.9700e-	163.0575
Total		**0.2938**	**2.5185**	**1.1277**	**0.0160**		**0.2030**	**0.2030**		**0.2030**	**0.2030**		**3,204.7288**	**3,204.728**	**0.0614**	**0.0588**	**3,223.7729**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	12.7251					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	32.1541					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.1237	18.1475	7.7224	0.1158		1.4673	1.4673		1.4673	1.4673	0.0000	23,167.05	23,167.058	0.4440	0.4247	23,304.72
Landscaping	2.4953	0.9571	83.0907	4.3900e-		0.4610	0.4610		0.4610	0.4610		149.7585	149.7585	0.1434		153.3445
Total	**49.4980**	**19.1046**	**90.8131**	**0.1202**		**1.9283**	**1.9283**		**1.9283**	**1.9283**	**0.0000**	**23,316.81**	**23,316.817**	**0.5875**	**0.4247**	**23,458.07**

VMVSP Annual Operation - 2028 - El Dorado-Mountain County County, Summer

VMVSP Annual Operation - 2028
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	6.00	Acre	6.00	261,360.00	0
Apartments Low Rise	209.00	Dwelling Unit	13.06	209,000.00	598
Condo/Townhouse	420.00	Dwelling Unit	26.25	420,000.00	1201
Single Family Housing	645.00	Dwelling Unit	209.42	1,161,000.00	1845
Strip Mall	75.00	1000sqft	1.72	75,000.00	0
City Park	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2028
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Min 7% better than 2016 code (model default) per 2019 standard

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	114.95	128.00
tblFireplaces	NumberGas	231.00	257.00
tblFireplaces	NumberGas	354.75	459.00
tblFireplaces	NumberWood	73.15	81.00
tblFireplaces	NumberWood	147.00	163.00

tblFireplaces	NumberWood	225.75	292.00
tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	ST_TR	22.75	0.95
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	SU_TR	16.74	0.95
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	44.32	21.03
tblVehicleTrips	WD_TR	1.89	0.95

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	61.7073	24.1014	114.7566	0.1517		2.4335	2.4335		2.4335	2.4335	0	29,412.80	29,412.80	0.7414	0.5358	29,591.00
Energy	0.357	3.0586	1.3575	0.0195		0.2466	0.2466		0.2466	0.2466		3,894.29	3,894.29	0.0746	0.0714	3,917.43
Mobile	17.5719	42.4834	173.1464	0.6142	66.1304	0.4815	66.6119	17.6516	0.4483	18.0999		61,691.27	61,691.27	1.4978		61,728.72
Total	**79.6362**	**69.6435**	**289.2605**	**0.7853**	**66.1304**	**3.1617**	**69.2921**	**17.6516**	**3.1285**	**20.7801**	**0**	**94,998.37**	**94,998.37**	**2.3139**	**0.6072**	**95,237.15**

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	566.15	566.15	566.15	1,621,769	1,621,769
Condo/Townhouse	3,750.29	3,750.29	3750.29	10,742,857	10,742,857
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	5,759.37	5,759.37	5759.37	16,497,959	16,497,959
Strip Mall	1,577.21	1,577.21	1577.21	2,428,963	2,428,963
City Park	0.95	0.95	0.95	2,022	2,022
Total	11,653.97	11,653.97	11,653.97	31,293,570	31,293,570

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.560436	0.034127	0.225306	0.120925	0.018624	0.004494	0.017700	0.009446	0.001631	0.000961	0.004725	0.000760	0.000866
Condo/Townhouse	0.560436	0.034127	0.225306	0.120925	0.018624	0.004494	0.017700	0.009446	0.001631	0.000961	0.004725	0.000760	0.000866
Other Asphalt Surfaces	0.560436	0.034127	0.225306	0.120925	0.018624	0.004494	0.017700	0.009446	0.001631	0.000961	0.004725	0.000760	0.000866
Single Family Housing	0.560436	0.034127	0.225306	0.120925	0.018624	0.004494	0.017700	0.009446	0.001631	0.000961	0.004725	0.000760	0.000866
Strip Mall	0.560436	0.034127	0.225306	0.120925	0.018624	0.004494	0.017700	0.009446	0.001631	0.000961	0.004725	0.000760	0.000866
City Park	0.560436	0.034127	0.225306	0.120925	0.018624	0.004494	0.017700	0.009446	0.001631	0.000961	0.004725	0.000760	0.000866

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low	5.81509	0.0627	0.5359	0.2280	3.4200e-		0.0433	0.0433		0.0433	0.0433		684.1282	684.1282	0.0131	0.0125	688.1936
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	5.79823	0.0625	0.5344	0.2274	3.4100e-		0.0432	0.0432		0.0432	0.0432		682.1450	682.1450	0.0131	0.0125	686.1986
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	20.1103	0.2169	1.8533	0.7886	0.0118		0.1498	0.1498		0.1498	0.1498		2,365.9234	2,365.923	0.0454	0.0434	2,379.9829
Strip Mall	1.3778	0.0149	0.1351	0.1135	8.1000e-		0.0103	0.0103		0.0103	0.0103		162.0943	162.0943	3.1100e-	2.9700e-	163.0575
Total		**0.3570**	**3.0586**	**1.3575**	**0.0195**		**0.2466**	**0.2466**		**0.2466**	**0.2466**		**3,894.2908**	**3,894.290**	**0.0746**	**0.0714**	**3,917.4327**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					

Architectural	15.8691					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	40.0058					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.6788	22.8918	9.7412	0.1461		1.8508	1.8508		1.8508	1.8508	0.0000	29,223.52	29,223.529	0.5601	0.5358	29,397.19
Landscaping	3.1536	1.2096	105.0154	5.5500e-		0.5827	0.5827		0.5827	0.5827		189.2736	189.2736	0.1813		193.8056
Total	**61.7073**	**24.1014**	**114.7566**	**0.1517**		**2.4335**	**2.4335**		**2.4335**	**2.4335**	**0.0000**	**29,412.80**	**29,412.803**	**0.7414**	**0.5358**	**29,590.99**

VMVSP Annual Operation - 2029 - El Dorado-Mountain County County, Summer

VMVSP Annual Operation - 2029
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
City Park	1.00	Acre	1.00	43,560.00	0
Apartments Low Rise	291.00	Dwelling Unit	18.19	291,000.00	832
Condo/Townhouse	565.00	Dwelling Unit	35.31	565,000.00	1616
Single Family Housing	688.00	Dwelling Unit	223.38	1,238,400.00	1968
Strip Mall	75.00	1000sqft	1.72	75,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2029
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Min 7% better than 2016 code (model default) per 2019 standard

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	160.05	178.00
tblFireplaces	NumberGas	310.75	345.00
tblFireplaces	NumberGas	378.40	490.00
tblFireplaces	NumberWood	101.85	113.00

tblFireplaces	NumberWood	197.75	220.00
tblFireplaces	NumberWood	240.80	312.00
tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	22.75	0.95
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	2.46	6.22
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	16.74	0.95
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	1.05	6.22
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	1.89	0.95
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	11.03	6.22
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	44.32	21.03

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	72.4347	28.9693	138.9747	0.1823		2.9298	2.9298		2.9298	2.9298	0	35,339.97	35,339.97	0.8927	0.6437	35,554.11
Energy	0.423	3.6257	1.6191	0.0231		0.2923	0.2923		0.2923	0.2923		4,614.51	4,614.51	0.0884	0.0846	4,641.93
Mobile	19.5618	47.0054	192.7238	0.7043	77.9342	0.523	78.4572	20.7998	0.4866	21.2865		70,763.41	70,763.41	1.6579		70,804.86
Total	**92.4195**	**79.6004**	**333.3175**	**0.9097**	**77.9342**	**3.7451**	**81.6793**	**20.7998**	**3.7087**	**24.5085**	**0**	**110,717.89**	**110,717.89**	**2.639**	**0.7283**	**111,000.90**

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	788.28	788.28	788.28	2,258,061	2,258,061
City Park	0.95	0.95	0.95	2,022	2,022
Condo/Townhouse	5,045.03	5,045.03	5045.03	14,451,701	14,451,701
General Office Building	62.18	62.18	62.18	148,596	148,596
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	6,143.33	6,143.33	6143.33	17,597,823	17,597,823
Strip Mall	1,577.21	1,577.21	1577.21	2,428,963	2,428,963

Total	13,616.98	13,616.98	13,616.98	36,887,165	36,887,165

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.563277	0.033751	0.225511	0.119803	0.017382	0.004328	0.017751	0.009394	0.001633	0.000947	0.004665	0.000757	0.000801
City Park	0.563277	0.033751	0.225511	0.119803	0.017382	0.004328	0.017751	0.009394	0.001633	0.000947	0.004665	0.000757	0.000801
Condo/Townhouse	0.563277	0.033751	0.225511	0.119803	0.017382	0.004328	0.017751	0.009394	0.001633	0.000947	0.004665	0.000757	0.000801
General Office Building	0.563277	0.033751	0.225511	0.119803	0.017382	0.004328	0.017751	0.009394	0.001633	0.000947	0.004665	0.000757	0.000801
Other Asphalt Surfaces	0.563277	0.033751	0.225511	0.119803	0.017382	0.004328	0.017751	0.009394	0.001633	0.000947	0.004665	0.000757	0.000801
Single Family Housing	0.563277	0.033751	0.225511	0.119803	0.017382	0.004328	0.017751	0.009394	0.001633	0.000947	0.004665	0.000757	0.000801
Strip Mall	0.563277	0.033751	0.225511	0.119803	0.017382	0.004328	0.017751	0.009394	0.001633	0.000947	0.004665	0.000757	0.000801

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low	8.09661	0.0873	0.7462	0.3175	4.7600e-		0.0603	0.0603		0.0603	0.0603		952.5421	952.5421	0.0183	0.0175	958.2026
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	7.8	0.0841	0.7188	0.3059	4.5900e-		0.0581	0.0581		0.0581	0.0581		917.6474	917.6474	0.0176	0.0168	923.1005
General Office	0.497868	5.3700e-	0.0488	0.0410	2.9000e-		3.7100e-	3.7100e-		3.7100e-	3.7100e-		58.5728	58.5728	1.1200e-	1.0700e-003	58.9208
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	21.451	0.2313	1.9769	0.8412	0.0126		0.1598	0.1598		0.1598	0.1598		2,523.6516	2,523.651	0.0484	0.0463	2,538.6484
Strip Mall	1.3778	0.0149	0.1351	0.1135	8.1000e-		0.0103	0.0103		0.0103	0.0103		162.0943	162.0943	3.1100e-	2.9700e-003	163.0575
Total		**0.4230**	**3.6257**	**1.6191**	**0.0231**		**0.2923**	**0.2923**		**0.2923**	**0.2923**		**4,614.5082**	**4,614.508**	**0.0885**	**0.0846**	**4,641.9299**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	18.5833					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	46.8111					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.2185	27.5033	11.7035	0.1756		2.2237	2.2237		2.2237	2.2237	0.0000	35,110.5882	35,110.5882	0.6730	0.6437	35,319.2329
Landscaping	3.8219	1.4660	127.2711	6.7300e-		0.7062	0.7062		0.7062	0.7062		229.3860	229.3860	0.2197		234.8785
Total	**72.4347**	**28.9693**	**138.9747**	**0.1823**		**2.9298**	**2.9298**		**2.9298**	**2.9298**	**0.0000**	**35,339.9742**	**35,339.9742**	**0.8927**	**0.6437**	**35,554.1114**

VMVSP Annual Operation - 2030 no VMVSP - El Dorado-Mountain County County, Annual

VMVSP Annual Operation - 2030 no VMVSP
El Dorado-Mountain County County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	60.00	1000sqft	1.38	60,000.00	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
City Park	1.00	Acre	1.00	43,560.00	0
Apartments Low Rise	291.00	Dwelling Unit	18.19	291,000.00	832
Condo/Townhouse	565.00	Dwelling Unit	35.31	565,000.00	1616
Single Family Housing	721.00	Dwelling Unit	234.09	1,297,800.00	2062
Strip Mall	75.00	1000sqft	1.72	75,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	133	**CH4 Intensity**	0.018	**N2O Intensity**	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E and eGrid emission factors adjusted for SB100 and RPS
Land Use - Land use assumptions from project description
Vehicle Trips - Trip rates from F&P
Woodstoves - Hearth assumptions provided by applicant
Water And Wastewater - Water assumptions from WSP water study
Energy Mitigation - Conservatively only included a 7% exceedance over 2016 Title 24 (model default) per min residential improvement with 2019 code.

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	160.05	178.00
tblFireplaces	NumberGas	310.75	345.00

tblFireplaces	NumberGas	396.55	514.00
tblFireplaces	NumberWood	101.85	113.00
tblFireplaces	NumberWood	197.75	220.00
tblFireplaces	NumberWood	252.35	327.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	641.35	133
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.002
tblVehicleTrips	ST_TR	7.16	6.45
tblVehicleTrips	ST_TR	22.75	1.85
tblVehicleTrips	ST_TR	5.67	9.70
tblVehicleTrips	ST_TR	2.46	9.56
tblVehicleTrips	ST_TR	9.91	9.70
tblVehicleTrips	ST_TR	42.04	42.70
tblVehicleTrips	SU_TR	6.07	6.45
tblVehicleTrips	SU_TR	16.74	1.85
tblVehicleTrips	SU_TR	4.84	9.70
tblVehicleTrips	SU_TR	1.05	9.56
tblVehicleTrips	SU_TR	8.62	9.70
tblVehicleTrips	SU_TR	20.43	42.70
tblVehicleTrips	WD_TR	6.59	6.45
tblVehicleTrips	WD_TR	1.89	1.85
tblVehicleTrips	WD_TR	5.81	9.70
tblVehicleTrips	WD_TR	11.03	9.56
tblVehicleTrips	WD_TR	9.52	9.70
tblVehicleTrips	WD_TR	44.32	42.70
tblWater	IndoorWaterUseRate	18,959,821.46	9,305,274.09
tblWater	IndoorWaterUseRate	36,812,024.48	42,908,985.11
tblWater	IndoorWaterUseRate	10,664,024.88	2,571,087.69
tblWater	IndoorWaterUseRate	46,976,052.47	90,780,383.35
tblWater	IndoorWaterUseRate	5,555,439.11	4,703,209.19
tblWater	OutdoorWaterUseRate	11,952,930.92	7,838,681.98
tblWater	OutdoorWaterUseRate	1,191,481.35	1,019,947.56
tblWater	OutdoorWaterUseRate	23,207,580.65	36,146,155.93
tblWater	OutdoorWaterUseRate	6,536,015.25	2,114,926.97
tblWater	OutdoorWaterUseRate	0.00	13,366,099.77
tblWater	OutdoorWaterUseRate	29,615,337.43	76,472,605.54
tblWater	OutdoorWaterUseRate	3,404,946.55	3,868,768.85

2.0 Emissions Summary

Operational No VMVSP

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Area	130.8688	2.3986	154.8779	0.2559		20.0772	20.0772		20.0772	20.0772	1,885.46	835.9226	2,721.38	1.5241	0.1532	2,805.14
Energy	0.0841	0.7235	0.3403	4.59E-03		0.0581	0.0581		0.0581	0.0581	0	1,582.74	1,582.74	0.1175	0.0265	1,593.59
Mobile	3.5829	11.0942	40.5131	0.1508	17.4733	0.1134	17.5867	4.679	0.1055	4.7846	0	13,747.61	13,747.61	0.3267	0	13,755.78
Waste						0	0		0	0	211.9023	0	211.9023	12.5231	0	524.9789
Water						0	0		0	0	47.6734	78.7881	126.4615	4.9072	0.1168	283.948
Total	**134.5359**	**14.2164**	**195.7312**	**0.4113**	**17.4733**	**20.2487**	**37.722**	**4.679**	**20.2408**	**24.9199**	**2,145.04**	**16,245.06**	**18,390.10**	**19.3985**	**0.2966**	**18,963.44**

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,876.05	1,876.05	1876.05	5,374,031	5,374,031
City Park	1.85	1.85	1.85	3,944	3,944
Condo/Townhouse	5,478.96	5,478.96	5478.96	15,694,725	15,694,725
General Office Building	573.60	573.60	573.60	1,370,762	1,370,762
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	6,991.74	6,991.74	6991.74	20,028,136	20,028,136
Strip Mall	3,202.50	3,202.50	3202.50	4,931,956	4,931,956
Total	18,124.70	18,124.70	18,124.70	47,403,555	47,403,555

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746
City Park	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746
Condo/Townhouse	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746
General Office Building	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746
Other Asphalt Surfaces	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746

Single Family Housing	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746
Strip Mall	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low	2.95526e+	0.0159	0.1362	0.0580	8.7000e-		0.0110	0.0110		0.0110	0.0110	0.0000	157.7040	157.7040	3.0200e-	2.8900e-	158.6412
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	2.847e+00	0.0154	0.1312	0.0558	8.4000e-		0.0106	0.0106		0.0106	0.0106	0.0000	151.9268	151.9268	2.9100e-	2.7900e-	152.8296
General Office	1.09033e+	5.8800e-	0.0535	0.0449	3.2000e-		4.0600e-	4.0600e-		4.0600e-	4.0600e-	0.0000	58.1843	58.1843	1.1200e-	1.0700e-	58.5300
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	8.20518e+	0.0442	0.3781	0.1609	2.4100e-		0.0306	0.0306		0.0306	0.0306	0.0000	437.8596	437.8596	8.3900e-	8.0300e-	440.4615
Strip Mall	502897	2.7100e-	0.0247	0.0207	1.5000e-		1.8700e-	1.8700e-		1.8700e-	1.8700e-	0.0000	26.8365	26.8365	5.1000e-	4.9000e-	26.9960
Total		**0.0841**	**0.7235**	**0.3403**	**4.5900e-**		**0.0581**	**0.0581**		**0.0581**	**0.0581**	**0.0000**	**832.5112**	**832.5112**	**0.0160**	**0.0153**	**837.4584**

5.3 Energy by Land Use - Electricity

	Electricity	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low	1.36908e+	82.5934	0.0112	1.2400e-	83.2430
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	3.22049e+	194.2852	0.0263	2.9200e-	195.8132
General Office	648354	39.1138	5.2900e-	5.9000e-	39.4214
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000
Single Family	6.21023e+	374.6492	0.0507	5.6300e-	377.5957
Strip Mall	987698	59.5856	8.0600e-	9.0000e-	60.0542
Total		**750.2272**	**0.1015**	**0.0113**	**756.1274**

6.0 Area Detail

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural	3.5423					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer	8.9703					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	118.0068	2.2640	143.1981	0.2553		20.0123	20.0123		20.0123	20.0123	1,885.460	816.7929	2,702.2536	1.5058	0.1532	2,785.556
Landscaping	0.3494	0.1346	11.6798	6.2000e-		0.0649	0.0649		0.0649	0.0649	0.0000	19.1297	19.1297	0.0182	0.0000	19.5855
Total	**130.8688**	**2.3986**	**154.8779**	**0.2559**		**20.0772**	**20.0772**		**20.0772**	**20.0772**	**1,885.460**	**835.9226**	**2,721.3834**	**1.5241**	**0.1532**	**2,805.142**

7.0 Water Detail

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low	9.30527 /	7.6448	0.3039	7.2300e-	17.3956
City Park	0 / 1.01995	0.2154	3.0000e-	0.0000	0.2171
Condo/Townhouse	42.909 /	35.2521	1.4011	0.0333	80.2153
General Office	2.57109 /	2.1015	0.0840	2.0000e-	4.7956
Other Asphalt	0 / 13.3661	2.8222	3.8000e-	4.0000e-	2.8444
Single Family	90.7804 /	74.5812	2.9643	0.0705	169.7075
Strip Mall	4.70321 /	3.8443	0.1536	3.6500e-	8.7725
Total		**126.4615**	**4.9072**	**0.1168**	**283.9480**

8.0 Waste Detail

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low	133.86	27.1724	1.6058	0.0000	67.3184
City Park	0.09	0.0183	1.0800e-	0.0000	0.0453
Condo/Townhouse	259.9	52.7574	3.1179	0.0000	130.7041
General Office	55.8	11.3269	0.6694	0.0000	28.0619
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000
Single Family	515.5	104.6418	6.1842	0.0000	259.2457
Strip Mall	78.75	15.9855	0.9447	0.0000	39.6035
Total		**211.9023**	**12.5231**	**0.0000**	**524.9789**

VMVSP Annual Operation - 2030 with VMVSP - El Dorado-Mountain County County, Annual

VMVSP Annual Operation - 2030 with VMVSP
El Dorado-Mountain County County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	60.00	1000sqft	1.38	60,000.00	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
City Park	1.00	Acre	1.00	43,560.00	0
Apartments Low Rise	291.00	Dwelling Unit	18.19	291,000.00	832
Condo/Townhouse	565.00	Dwelling Unit	35.31	565,000.00	1616
Single Family Housing	721.00	Dwelling Unit	234.09	1,297,800.00	2062
Strip Mall	75.00	1000sqft	1.72	75,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	133	**CH4 Intensity**	0.018	**N2O Intensity**	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E and eGrid emission factors adjusted for SB100 and RPS
Land Use - Land use assumptions from project description
Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Water And Wastewater - Water assumptions from WSP water study (includes 20% reduction in indoor residential water use per VMVSP Policy 9.36
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Energy Star appliances per VMVSP 9.16. Conservatively only included a 7% exceedance over 2016 Title 24 (model default) per min residential
Water Mitigation - Recycled water per WSA study (VMVSP Policy 9.40), water efficient irrigation (VMVSP Policy 9.42), turf (VMVSP Policy 9.45)

Table Name	Column Name	Default Value	New Value

tblFireplaces	NumberGas	160.05	178.00
tblFireplaces	NumberGas	310.75	345.00
tblFireplaces	NumberGas	396.55	514.00
tblFireplaces	NumberWood	101.85	113.00
tblFireplaces	NumberWood	197.75	220.00
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tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	641.35	133
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.002
tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	22.75	0.95
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	2.46	6.22
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	16.74	0.95
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	1.05	6.22
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	1.89	0.95
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	11.03	6.22
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	44.32	21.03
tblWater	IndoorWaterUseRate	18,959,821.46	7,444,219.27
tblWater	IndoorWaterUseRate	36,812,024.48	34,327,188.09
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tblWater	IndoorWaterUseRate	46,976,052.47	72,624,306.68
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tblWater	OutdoorWaterUseRate	6,536,015.25	2,114,926.97
tblWater	OutdoorWaterUseRate	0.00	13,366,099.77
tblWater	OutdoorWaterUseRate	29,615,337.43	76,472,605.54
tblWater	OutdoorWaterUseRate	3,404,946.55	3,868,768.85

2.0 Emissions Summary

Operational with CalEEMod Quantifable VMVSP Policies

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	12.9971	1.2888	12.1709	7.99E-03		0.1583	0.1583		0.1583	0.1583	0	1,355.77	1,355.77	0.0439	0.0245	1,364.17
Energy	0.0841	0.7235	0.3403	4.59E-03		0.0581	0.0581		0.0581	0.0581	0	1,575.43	1,575.43	0.1165	0.0264	1,586.22
Mobile	2.8438	8.8854	32.6156	0.1222	14.1819	0.0917	14.2736	3.7977	0.0853	3.8829	0	11,143.01	11,143.01	0.2636	0	11,149.60
Waste						0	0		0	0	211.9023	0	211.9023	12.5231	0	524.9789
Water						0	0		0	0	38.6003	61.0492	99.6494	3.9729	0.0945	227.1418
Total	**15.925**	**10.8977**	**45.1268**	**0.1348**	**14.1819**	**0.3081**	**14.4899**	**3.7977**	**0.3017**	**4.0993**	**250.5026**	**14,135.26**	**14,385.76**	**16.9199**	**0.1455**	**14,852.11**

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	788.28	788.28	788.28	2,258,061	2,258,061
City Park	0.95	0.95	0.95	2,022	2,022
Condo/Townhouse	5,045.03	5,045.03	5045.03	14,451,701	14,451,701
General Office Building	373.08	373.08	373.08	891,576	891,576
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	6,437.99	6,437.99	6437.99	18,441,905	18,441,905
Strip Mall	1,577.21	1,577.21	1577.21	2,428,963	2,428,963
Total	14,222.55	14,222.55	14,222.55	38,474,227	38,474,227

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746
City Park	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746
Condo/Townhouse	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746

General Office Building	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746
Other Asphalt Surfaces	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746
Single Family Housing	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746
Strip Mall	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24
Install Energy Efficient Appliances

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low	2.95526e+	0.0159	0.1362	0.0580	8.7000e-		0.0110	0.0110		0.0110	0.0110	0.0000	157.7040	157.7040	3.0200e-	2.8900e-003	158.6412
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	2.847e+00	0.0154	0.1312	0.0558	8.4000e-		0.0106	0.0106		0.0106	0.0106	0.0000	151.9268	151.9268	2.9100e-	2.7900e-003	152.8296
General Office	1.09033e+	5.8800e-	0.0535	0.0449	3.2000e-		4.0600e-	4.0600e-		4.0600e-	4.0600e-	0.0000	58.1843	58.1843	1.1200e-	1.0700e-003	58.5300
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	8.20518e+	0.0442	0.3781	0.1609	2.4100e-		0.0306	0.0306		0.0306	0.0306	0.0000	437.8596	437.8596	8.3900e-	8.0300e-003	440.4615
Strip Mall	502897	2.7100e-	0.0247	0.0207	1.5000e-		1.8700e-	1.8700e-		1.8700e-	1.8700e-	0.0000	26.8365	26.8365	5.1000e-	4.9000e-004	26.9960
Total		**0.0841**	**0.7235**	**0.3403**	**4.5900e-**		**0.0581**	**0.0581**		**0.0581**	**0.0581**	**0.0000**	**832.5112**	**832.5112**	**0.0160**	**0.0153**	**837.4584**

5.3 Energy by Land Use - Electricity

	Electricity	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low	1.36908e+	82.5934	0.0112	1.2400e-	83.2430
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	3.22049e+	194.2852	0.0263	2.9200e-	195.8132
General Office	648354	39.1138	5.2900e-	5.9000e-	39.4214
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000
Single Family	6.08902e+	367.3370	0.0497	5.5200e-	370.2260
Strip Mall	987698	59.5856	8.0600e-	9.0000e-	60.0542
Total		**742.9150**	**0.1005**	**0.0112**	**748.7577**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

SubCategory	tons/yr										MT/yr					
Architectural	3.5423					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer	8.9703					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1351	1.1542	0.4911	7.3700e-		0.0933	0.0933		0.0933	0.0933	0.0000	1,336.6417	1,336.6417	0.0256	0.0245	1,344.5847
Landscaping	0.3494	0.1346	11.6798	6.2000e-		0.0649	0.0649		0.0649	0.0649	0.0000	19.1297	19.1297	0.0182	0.0000	19.5855
Total	**12.9971**	**1.2888**	**12.1709**	**7.9900e-**		**0.1583**	**0.1583**		**0.1583**	**0.1583**	**0.0000**	**1,355.7715**	**1,355.7715**	**0.0439**	**0.0245**	**1,364.1702**

7.0 Water Detail

Use Reclaimed Water
Turf Reduction
Use Water Efficient Irrigation System

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low	7.44422 /	5.9791	0.2431	5.7800e-	13.7787
City Park	0 /	0.1545	2.0000e-	0.0000	0.1557
Condo/Townhouse	34.3272 /	27.5713	1.1208	0.0267	63.5369
General Office	2.57109 /	1.9753	0.0839	2.0000e-	4.6684
Other Asphalt	0 / 9.58879	2.0247	2.7000e-	3.0000e-	2.0406
Single Family	72.6243 /	58.3311	2.3712	0.0564	134.4217
Strip Mall	4.70321 /	3.6134	0.1535	3.6500e-	8.5398
Total		**99.6494**	**3.9729**	**0.0945**	**227.1418**

8.0 Waste Detail

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low	133.86	27.1724	1.6058	0.0000	67.3184
City Park	0.09	0.0183	1.0800e-	0.0000	0.0453
Condo/Townhouse	259.9	52.7574	3.1179	0.0000	130.7041
General Office	55.8	11.3269	0.6694	0.0000	28.0619
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000
Single Family	515.5	104.6418	6.1842	0.0000	259.2457
Strip Mall	78.75	15.9855	0.9447	0.0000	39.6035
Total		**211.9023**	**12.5231**	**0.0000**	**524.9789**

VMVSP Annual Operation - 2030 with VMVSP - El Dorado-Mountain County County, Summer

VMVSP Annual Operation - 2030 with VMVSP
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	60.00	1000sqft	1.38	60,000.00	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
City Park	1.00	Acre	1.00	43,560.00	0
Apartments Low Rise	291.00	Dwelling Unit	18.19	291,000.00	832
Condo/Townhouse	565.00	Dwelling Unit	35.31	565,000.00	1616
Single Family Housing	721.00	Dwelling Unit	234.09	1,297,800.00	2062
Strip Mall	75.00	1000sqft	1.72	75,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	133	**CH4 Intensity**	0.018	**N2O Intensity**	0.002

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E and eGrid emission factors adjusted for SB100 and RPS
Land Use - Land use assumptions from project description
Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Water And Wastewater - Water assumptions from WSP water study (includes 20% reduction in indoor residential water use per VMVSP Policy 9.36
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Energy Star appliances per VMVSP 9.16. Conservatively only included a 7% exceedance over 2016 Title 24 (model default) per min
Water Mitigation - Recycled water per WSA study (VMVSP Policy 9.40), water efficient irrigation (VMVSP Policy 9.42), turf (VMVSP Policy 9.45)

Table Name	Column Name	Default Value	New Value

tblFireplaces	NumberGas	160.05	178.00
tblFireplaces	NumberGas	310.75	345.00
tblFireplaces	NumberGas	396.55	514.00
tblFireplaces	NumberWood	101.85	113.00
tblFireplaces	NumberWood	197.75	220.00
tblFireplaces	NumberWood	252.35	327.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	641.35	133
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.002
tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	22.75	0.95
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	2.46	6.22
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	16.74	0.95
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	1.05	6.22
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	1.89	0.95
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	11.03	6.22
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	44.32	21.03
tblWater	IndoorWaterUseRate	18,959,821.46	7,444,219.27
tblWater	IndoorWaterUseRate	36,812,024.48	34,327,188.09
tblWater	IndoorWaterUseRate	10,664,024.88	2,571,087.69
tblWater	IndoorWaterUseRate	46,976,052.47	72,624,306.68
tblWater	IndoorWaterUseRate	5,555,439.11	4,703,209.19
tblWater	OutdoorWaterUseRate	11,952,930.92	7,838,681.98
tblWater	OutdoorWaterUseRate	1,191,481.35	1,019,947.56
tblWater	OutdoorWaterUseRate	23,207,580.65	36,146,155.93
tblWater	OutdoorWaterUseRate	6,536,015.25	2,114,926.97
tblWater	OutdoorWaterUseRate	0.00	13,366,099.77
tblWater	OutdoorWaterUseRate	29,615,337.43	76,472,605.54
tblWater	OutdoorWaterUseRate	3,404,946.55	3,868,768.85

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Area	75.739	29.6463	141.7544	0.1866		2.9975	2.9975		2.9975	2.9975	0	36,170.77	36,170.77	0.9121	0.6588	36,389.90
Energy	0.4609	3.9646	1.8644	0.0251		0.3185	0.3185		0.3185	0.3185		5,028.42	5,028.42	0.0964	0.0922	5,058.30
Mobile	19.3947	46.3905	190.5592	0.717	81.2725	0.504	81.7764	21.6885	0.4688	22.1573		72,040.72	72,040.72	1.6267		72,081.39
Total	**95.5946**	**80.0013**	**334.1781**	**0.9286**	**81.2725**	**3.82**	**85.0924**	**21.6885**	**3.7848**	**25.4734**	**0**	########	**113,239.91**	**2.6351**	**0.751**	########

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	788.28	788.28	788.28	2,258,061	2,258,061
City Park	0.95	0.95	0.95	2,022	2,022
Condo/Townhouse	5,045.03	5,045.03	5045.03	14,451,701	14,451,701
General Office Building	373.08	373.08	373.08	891,576	891,576
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	6,437.99	6,437.99	6437.99	18,441,905	18,441,905
Strip Mall	1,577.21	1,577.21	1577.21	2,428,963	2,428,963
Total	14,222.55	14,222.55	14,222.55	38,474,227	38,474,227

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746
City Park	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746
Condo/Townhouse	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746
General Office Building	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746
Other Asphalt Surfaces	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746
Single Family Housing	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746
Strip Mall	0.565604	0.033433	0.225772	0.118876	0.016293	0.004189	0.017799	0.009349	0.001639	0.000932	0.004613	0.000754	0.000746

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24
Install Energy Efficient Appliances

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low	8.09661	0.0873	0.7462	0.3175	4.7600e-		0.0603	0.0603		0.0603	0.0603		952.5421	952.5421	0.0183	0.0175	958.2026
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	7.8	0.0841	0.7188	0.3059	4.5900e-		0.0581	0.0581		0.0581	0.0581		917.6474	917.6474	0.0176	0.0168	923.1005
General Office	2.98721	0.0322	0.2929	0.2460	1.7600e-		0.0223	0.0223		0.0223	0.0223		351.4366	351.4366	6.7400e-	6.4400e-	353.5250
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	22.4799	0.2424	2.0717	0.8816	0.0132		0.1675	0.1675		0.1675	0.1675		2,644.6989	2,644.698	0.0507	0.0485	2,660.4150
Strip Mall	1.3778	0.0149	0.1351	0.1135	8.1000e-		0.0103	0.0103		0.0103	0.0103		162.0943	162.0943	3.1100e-	2.9700e-	163.0575
Total		**0.4610**	**3.9646**	**1.8644**	**0.0251**		**0.3185**	**0.3185**		**0.3185**	**0.3185**		**5,028.4193**	**5,028.419**	**0.0964**	**0.0922**	**5,058.3006**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	19.4099					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	49.1523					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.2942	28.1502	11.9788	0.1797		2.2760	2.2760		2.2760	2.2760	0.0000	35,936.47	35,936.470	0.6888	0.6588	36,150.02
Landscaping	3.8826	1.4960	129.7756	6.8700e-		0.7216	0.7216		0.7216	0.7216		234.2992	234.2992	0.2233		239.8812
Total	**75.7390**	**29.6463**	**141.7544**	**0.1866**		**2.9976**	**2.9976**		**2.9976**	**2.9976**	**0.0000**	**36,170.76**	**36,170.769**	**0.9121**	**0.6588**	**36,389.90**

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VMVSP Annual Operation - 2031
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	68.00	1000sqft	1.56	68,000.00	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
City Park	6.00	Acre	6.00	261,360.00	0
Apartments Low Rise	291.00	Dwelling Unit	18.19	291,000.00	832
Condo/Townhouse	565.00	Dwelling Unit	35.31	565,000.00	1616
Single Family Housing	914.00	Dwelling Unit	296.75	1,645,200.00	2614
Strip Mall	85.00	1000sqft	1.95	85,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2031
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Min 7% better than 2016 code (model default) per 2019 standard

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	160.05	178.00
tblFireplaces	NumberGas	310.75	345.00
tblFireplaces	NumberGas	502.70	651.00
tblFireplaces	NumberWood	101.85	113.00

tblFireplaces	NumberWood	197.75	220.00
tblFireplaces	NumberWood	319.90	414.00
tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	22.75	0.95
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	2.46	6.22
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	16.74	0.95
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	1.05	6.22
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	1.89	0.95
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	11.03	6.22
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	44.32	21.03

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	87.5718	33.5451	159.2186	0.2111		3.3863	3.3863		3.3863	3.3863	0	40,942.97	40,942.97	1.0303	0.7458	41,190.98
Energy	0.5321	4.5762	2.1483	0.029		0.3676	0.3676		0.3676	0.3676		5,804.83	5,804.83	0.1113	0.1064	5,839.33
Mobile	20.9591	50.3525	206.2994	0.8	92.6445	0.532	93.1765	24.7213	0.4947	25.2161		80,401.56	80,401.56	1.7527		80,445.38
Total	**109.063**	**88.4739**	**367.6664**	**1.0401**	**92.6445**	**4.2859**	**96.9304**	**24.7213**	**4.2486**	**28.97**	**0**	########	**127,149.37**	**2.8943**	**0.8522**	########

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	788.28	788.28	788.28	2,258,061	2,258,061
City Park	5.68	5.68	5.68	12,134	12,134
Condo/Townhouse	5,045.03	5,045.03	5045.03	14,451,701	14,451,701
General Office Building	422.83	422.83	422.83	1,010,453	1,010,453
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	8,161.34	8,161.34	8161.34	23,378,503	23,378,503
Strip Mall	1,787.51	1,787.51	1787.51	2,752,825	2,752,825

Total	16,210.67	16,210.67	16,210.67	43,863,675	43,863,675

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.567444	0.033164	0.226031	0.118096	0.015320	0.004075	0.017934	0.009350	0.001642	0.000921	0.004569	0.000751	0.000701
City Park	0.567444	0.033164	0.226031	0.118096	0.015320	0.004075	0.017934	0.009350	0.001642	0.000921	0.004569	0.000751	0.000701
Condo/Townhouse	0.567444	0.033164	0.226031	0.118096	0.015320	0.004075	0.017934	0.009350	0.001642	0.000921	0.004569	0.000751	0.000701
General Office Building	0.567444	0.033164	0.226031	0.118096	0.015320	0.004075	0.017934	0.009350	0.001642	0.000921	0.004569	0.000751	0.000701
Other Asphalt Surfaces	0.567444	0.033164	0.226031	0.118096	0.015320	0.004075	0.017934	0.009350	0.001642	0.000921	0.004569	0.000751	0.000701
Single Family Housing	0.567444	0.033164	0.226031	0.118096	0.015320	0.004075	0.017934	0.009350	0.001642	0.000921	0.004569	0.000751	0.000701
Strip Mall	0.567444	0.033164	0.226031	0.118096	0.015320	0.004075	0.017934	0.009350	0.001642	0.000921	0.004569	0.000751	0.000701

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low	8.09661	0.0873	0.7462	0.3175	4.7600e-		0.0603	0.0603		0.0603	0.0603		952.5421	952.5421	0.0183	0.0175	958.2026
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	7.8	0.0841	0.7188	0.3059	4.5900e-		0.0581	0.0581		0.0581	0.0581		917.6474	917.6474	0.0176	0.0168	923.1005
General Office	3.38551	0.0365	0.3319	0.2788	1.9900e-		0.0252	0.0252		0.0252	0.0252		398.2948	398.2948	7.6300e-	7.3000e-	400.6617
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	28.4975	0.3073	2.6262	1.1176	0.0168		0.2123	0.2123		0.2123	0.2123		3,352.6419	3,352.641	0.0643	0.0615	3,372.5649
Strip Mall	1.56151	0.0168	0.1531	0.1286	9.2000e-		0.0116	0.0116		0.0116	0.0116		183.7069	183.7069	3.5200e-	3.3700e-	184.7985
Total		**0.5321**	**4.5762**	**2.1483**	**0.0290**		**0.3676**	**0.3676**		**0.3676**	**0.3676**		**5,804.8330**	**5,804.833**	**0.1113**	**0.1064**	**5,839.3282**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	22.5019					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	56.9831					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.7290	31.8660	13.5600	0.2034		2.5764	2.5764		2.5764	2.5764	0.0000	40,680.00	40,680.000	0.7797	0.7458	40,921.74
Landscaping	4.3578	1.6791	145.6586	7.7100e-		0.8099	0.8099		0.8099	0.8099		262.9748	262.9748	0.2506		269.2400
Total	**87.5718**	**33.5451**	**159.2186**	**0.2111**		**3.3863**	**3.3863**		**3.3863**	**3.3863**	**0.0000**	**40,942.97**	**40,942.974**	**1.0303**	**0.7458**	**41,190.98**

VMVSP Annual Operation - 2032 - El Dorado-Mountain County County, Summer

VMVSP Annual Operation - 2032
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	93.00	1000sqft	2.13	93,000.00	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
City Park	9.00	Acre	9.00	392,040.00	0
Apartments Low Rise	374.00	Dwelling Unit	23.38	374,000.00	1070
Condo/Townhouse	565.00	Dwelling Unit	35.31	565,000.00	1616
Single Family Housing	1,116.00	Dwelling Unit	362.34	2,008,800.00	3192
Strip Mall	85.00	1000sqft	1.95	85,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2032
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Min 7% better than 2016 code (model default) per 2019 standard

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	205.70	229.00
tblFireplaces	NumberGas	310.75	345.00
tblFireplaces	NumberGas	613.80	795.00
tblFireplaces	NumberWood	130.90	145.00

tblFireplaces	NumberWood	197.75	220.00
tblFireplaces	NumberWood	390.60	506.00
tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	22.75	0.95
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	2.46	6.22
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	16.74	0.95
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	1.05	6.22
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	1.89	0.95
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	11.03	6.22
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	44.32	21.03

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	102.9785	39.1071	184.924	0.2461		3.9445	3.9445		3.9445	3.9445	0	47,740.61	47,740.61	1.2001	0.8697	48,029.77
Energy	0.6384	5.4915	2.5884	0.0348		0.4411	0.4411		0.4411	0.4411		6,963.91	6,963.91	0.1335	0.1277	7,005.29
Mobile	22.6792	54.7806	224.3198	0.8954	105.7031	0.5626	106.2657	28.2041	0.523	28.7271		90,007.68	90,007.68	1.9022		90,055.23
Total	**126.296**	**99.3792**	**411.8321**	**1.1763**	**105.7031**	**4.9481**	**110.6513**	**28.2041**	**4.9086**	**33.1127**	**0**	########	**144,712.20**	**3.2358**	**0.9973**	########

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,013.12	1,013.12	1013.12	2,902,112	2,902,112
City Park	8.53	8.53	8.53	18,201	18,201
Condo/Townhouse	5,045.03	5,045.03	5045.03	14,451,701	14,451,701
General Office Building	578.28	578.28	578.28	1,381,943	1,381,943
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	9,965.05	9,965.05	9965.05	28,545,306	28,545,306
Strip Mall	1,787.51	1,787.51	1787.51	2,752,825	2,752,825

Total	18,397.51	18,397.51	18,397.51	50,052,086	50,052,086

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.568926	0.032957	0.226285	0.117469	0.014479	0.003987	0.018049	0.009344	0.001646	0.000912	0.004534	0.000749	0.000662
City Park	0.568926	0.032957	0.226285	0.117469	0.014479	0.003987	0.018049	0.009344	0.001646	0.000912	0.004534	0.000749	0.000662
Condo/Townhouse	0.568926	0.032957	0.226285	0.117469	0.014479	0.003987	0.018049	0.009344	0.001646	0.000912	0.004534	0.000749	0.000662
General Office Building	0.568926	0.032957	0.226285	0.117469	0.014479	0.003987	0.018049	0.009344	0.001646	0.000912	0.004534	0.000749	0.000662
Other Asphalt Surfaces	0.568926	0.032957	0.226285	0.117469	0.014479	0.003987	0.018049	0.009344	0.001646	0.000912	0.004534	0.000749	0.000662
Single Family Housing	0.568926	0.032957	0.226285	0.117469	0.014479	0.003987	0.018049	0.009344	0.001646	0.000912	0.004534	0.000749	0.000662
Strip Mall	0.568926	0.032957	0.226285	0.117469	0.014479	0.003987	0.018049	0.009344	0.001646	0.000912	0.004534	0.000749	0.000662

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low	10.4059	0.1122	0.9590	0.4081	6.1200e-		0.0775	0.0775		0.0775	0.0775		1,224.2294	1,224.229	0.0235	0.0224	1,231.5044
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	7.8	0.0841	0.7188	0.3059	4.5900e-		0.0581	0.0581		0.0581	0.0581		917.6474	917.6474	0.0176	0.0168	923.1005
General Office	4.63018	0.0499	0.4539	0.3813	2.7200e-		0.0345	0.0345		0.0345	0.0345		544.7267	544.7267	0.0104	9.9900e-	547.9637
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	34.7956	0.3753	3.2067	1.3645	0.0205		0.2593	0.2593		0.2593	0.2593		4,093.5977	4,093.597	0.0785	0.0751	4,117.9239
Strip Mall	1.56151	0.0168	0.1531	0.1286	9.2000e-		0.0116	0.0116		0.0116	0.0116		183.7069	183.7069	3.5200e-	3.3700e-	184.7985
Total		**0.6384**	**5.4915**	**2.5884**	**0.0348**		**0.4410**	**0.4410**		**0.4410**	**0.4410**		**6,963.9081**	**6,963.908**	**0.1335**	**0.1277**	**7,005.2911**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	26.4887					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	67.0820					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.3482	37.1577	15.8118	0.2372		3.0042	3.0042		3.0042	3.0042	0.0000	47,435.29	47,435.294	0.9092	0.8697	47,717.17
Landscaping	5.0595	1.9495	169.1122	8.9500e-		0.9403	0.9403		0.9403	0.9403		305.3183	305.3183	0.2910		312.5924
Total	**102.9785**	**39.1072**	**184.9239**	**0.2461**		**3.9445**	**3.9445**		**3.9445**	**3.9445**	**0.0000**	**47,740.61**	**47,740.612**	**1.2001**	**0.8697**	**48,029.77**

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El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	103.00	1000sqft	2.36	103,000.00	0
Junior High School	779.00	Student	19.00	91,580.55	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
City Park	9.00	Acre	9.00	392,040.00	0
Apartments Low Rise	475.00	Dwelling Unit	29.69	475,000.00	1359
Condo/Townhouse	636.00	Dwelling Unit	39.75	636,000.00	1819
Single Family Housing	1,284.00	Dwelling Unit	416.88	2,311,200.00	3672
Strip Mall	85.00	1000sqft	1.95	85,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2033
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Min 7% better than 2016 code (model default) per 2019 standard

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	261.25	290.00
tblFireplaces	NumberGas	349.80	689.00
tblFireplaces	NumberGas	706.20	915.00

tblFireplaces	NumberWood	166.25	185.00
tblFireplaces	NumberWood	222.60	247.00
tblFireplaces	NumberWood	449.40	582.00
tblLandUse	LotAcreage	2.10	19.00
tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	22.75	0.95
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	2.46	6.22
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	16.74	0.95
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	1.05	6.22
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	1.89	0.95
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	11.03	6.22
tblVehicleTrips	WD_TR	1.62	0.90
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	44.32	21.03

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	122.1567	50.5113	217.6957	0.3184		4.9963	4.9963		4.9963	4.9963	0	61,937.18	61,937.18	1.5198	1.129	62,311.61
Energy	0.7774	6.7023	3.2606	0.0424		0.5371	0.5371		0.5371	0.5371		8,480.63	8,480.63	0.1626	0.1555	8,531.03
Mobile	25.3802	61.5285	252.0385	1.032	123.8974	0.6136	124.511	33.057	0.5701	33.6271		########	103,764.91	2.1355		########
Total	**148.3142**	**118.7422**	**472.9949**	**1.3928**	**123.8974**	**6.147**	**130.0443**	**33.057**	**6.1035**	**39.1605**	**0**	########	**174,182.71**	**3.8179**	**1.2845**	########

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,286.71	1,286.71	1286.71	3,685,838	3,685,838
City Park	8.53	8.53	8.53	18,201	18,201
Condo/Townhouse	5,679.01	5,679.01	5679.01	16,267,755	16,267,755
General Office Building	640.46	640.46	640.46	1,530,539	1,530,539

Junior High School	700.64	0.00	0.00	1,125,119	1,125,119
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	11,465.16	11,465.16	11465.16	32,842,449	32,842,449
Strip Mall	1,787.51	1,787.51	1787.51	2,752,825	2,752,825
Total	21,568.01	20,867.37	20,867.37	58,222,724	58,222,724

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	63	25	12
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.570099	0.032790	0.226523	0.116980	0.013774	0.003915	0.018157	0.009326	0.001650	0.000905	0.004507	0.000746	0.000629
City Park	0.570099	0.032790	0.226523	0.116980	0.013774	0.003915	0.018157	0.009326	0.001650	0.000905	0.004507	0.000746	0.000629
Condo/Townhouse	0.570099	0.032790	0.226523	0.116980	0.013774	0.003915	0.018157	0.009326	0.001650	0.000905	0.004507	0.000746	0.000629
General Office Building	0.570099	0.032790	0.226523	0.116980	0.013774	0.003915	0.018157	0.009326	0.001650	0.000905	0.004507	0.000746	0.000629
Junior High School	0.570099	0.032790	0.226523	0.116980	0.013774	0.003915	0.018157	0.009326	0.001650	0.000905	0.004507	0.000746	0.000629
Other Asphalt Surfaces	0.570099	0.032790	0.226523	0.116980	0.013774	0.003915	0.018157	0.009326	0.001650	0.000905	0.004507	0.000746	0.000629
Single Family Housing	0.570099	0.032790	0.226523	0.116980	0.013774	0.003915	0.018157	0.009326	0.001650	0.000905	0.004507	0.000746	0.000629
Strip Mall	0.570099	0.032790	0.226523	0.116980	0.013774	0.003915	0.018157	0.009326	0.001650	0.000905	0.004507	0.000746	0.000629

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low	13.2161	0.1425	1.2180	0.5183	7.7700e-		0.0985	0.0985		0.0985	0.0985		1,554.8368	1,554.836	0.0298	0.0285	1,564.0764
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	8.78018	0.0947	0.8092	0.3443	5.1600e-		0.0654	0.0654		0.0654	0.0654		1,032.9624	1,032.962	0.0198	0.0189	1,039.1007

General Office	5.12805	0.0553	0.5028	0.4223	3.0200e-		0.0382	0.0382		0.0382	0.0382		603.2995	603.2995	0.0116	0.0111	606.8846
Junior High School	3.3659	0.0363	0.3300	0.2772	1.9800e-		0.0251	0.0251		0.0251	0.0251		395.9881	395.9881	7.5900e-	7.2600e-	398.3413
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	40.0336	0.4317	3.6894	1.5700	0.0236		0.2983	0.2983		0.2983	0.2983		4,709.8382	4,709.838	0.0903	0.0864	4,737.8264
Strip Mall	1.56151	0.0168	0.1531	0.1286	9.2000e-		0.0116	0.0116		0.0116	0.0116		183.7069	183.7069	3.5200e-	3.3700e-	184.7985
Total		**0.7774**	**6.7023**	**3.2606**	**0.0424**		**0.5371**	**0.5371**		**0.5371**	**0.5371**		**8,480.6318**	**8,480.631**	**0.1625**	**0.1555**	**8,531.0280**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	31.2001					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	79.4080					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.6449	48.2386	20.5271	0.3079		3.9001	3.9001		3.9001	3.9001	0.0000	61,581.17	61,581.176	1.1803	1.1290	61,947.12
Landscaping	5.9036	2.2727	197.1686	0.0104		1.0961	1.0961		1.0961	1.0961		355.9988	355.9988	0.3395		364.4870
Total	**122.1567**	**50.5113**	**217.6957**	**0.3184**		**4.9963**	**4.9963**		**4.9963**	**4.9963**	**0.0000**	**61,937.17**	**61,937.175**	**1.5198**	**1.1290**	**62,311.60**

VMVSP Annual Operation - 2034 - El Dorado-Mountain County County, Summer

VMVSP Annual Operation - 2034
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	115.00	1000sqft	2.64	115,000.00	0
Junior High School	779.00	Student	19.00	91,580.55	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
City Park	17.00	Acre	17.00	740,520.00	0
Apartments Low Rise	551.00	Dwelling Unit	34.44	551,000.00	1576
Condo/Townhouse	708.00	Dwelling Unit	44.25	708,000.00	2025
Single Family Housing	1,451.00	Dwelling Unit	471.10	2,611,800.00	4150
Strip Mall	85.00	1000sqft	1.95	85,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2034
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Min 7% better than 2016 code (model default) per 2019 standard

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	303.05	337.00
tblFireplaces	NumberGas	389.40	433.00
tblFireplaces	NumberGas	798.05	1,034.00

tblFireplaces	NumberWood	192.85	214.00
tblFireplaces	NumberWood	247.80	275.00
tblFireplaces	NumberWood	507.85	658.00
tblLandUse	LotAcreage	2.10	19.00
tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	22.75	0.95
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	2.46	6.22
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	16.74	0.95
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	1.05	6.22
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	1.89	0.95
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	11.03	6.22
tblVehicleTrips	WD_TR	1.62	0.90
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	44.32	21.03

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	136.8118	51.5234	243.9205	0.3243		5.1981	5.1981		5.1981	5.1981	0	62,894.56	62,894.56	1.5819	1.1457	63,275.52
Energy	0.8735	7.5272	3.6359	0.0477		0.6035	0.6035		0.6035	0.6035		9,529.20	9,529.20	0.1826	0.1747	9,585.83
Mobile	26.9317	65.8928	270.1908	1.1361	138.4497	0.6375	139.0872	36.9378	0.5923	37.5301		########	114,253.67	2.2851		########
Total	**164.617**	**124.9434**	**517.7472**	**1.508**	**138.4497**	**6.4391**	**144.8888**	**36.9378**	**6.3939**	**43.3316**	**0**	########	**186,677.43**	**4.0497**	**1.3204**	########

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,492.58	1,492.58	1492.58	4,275,572	4,275,572
City Park	16.10	16.10	16.10	34,379	34,379
Condo/Townhouse	6,321.91	6,321.91	6321.91	18,109,388	18,109,388
General Office Building	715.08	715.08	715.08	1,708,854	1,708,854

Junior High School	700.64	0.00	0.00	1,125,119	1,125,119
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	12,956.35	12,956.35	12956.35	37,114,013	37,114,013
Strip Mall	1,787.51	1,787.51	1787.51	2,752,825	2,752,825
Total	23,990.17	23,289.54	23,289.54	65,120,149	65,120,149

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	63	25	12
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.571038	0.032651	0.226774	0.116597	0.013140	0.003857	0.018254	0.009314	0.001655	0.000893	0.004485	0.000743	0.000600
City Park	0.571038	0.032651	0.226774	0.116597	0.013140	0.003857	0.018254	0.009314	0.001655	0.000893	0.004485	0.000743	0.000600
Condo/Townhouse	0.571038	0.032651	0.226774	0.116597	0.013140	0.003857	0.018254	0.009314	0.001655	0.000893	0.004485	0.000743	0.000600
General Office Building	0.571038	0.032651	0.226774	0.116597	0.013140	0.003857	0.018254	0.009314	0.001655	0.000893	0.004485	0.000743	0.000600
Junior High School	0.571038	0.032651	0.226774	0.116597	0.013140	0.003857	0.018254	0.009314	0.001655	0.000893	0.004485	0.000743	0.000600
Other Asphalt Surfaces	0.571038	0.032651	0.226774	0.116597	0.013140	0.003857	0.018254	0.009314	0.001655	0.000893	0.004485	0.000743	0.000600
Single Family Housing	0.571038	0.032651	0.226774	0.116597	0.013140	0.003857	0.018254	0.009314	0.001655	0.000893	0.004485	0.000743	0.000600
Strip Mall	0.571038	0.032651	0.226774	0.116597	0.013140	0.003857	0.018254	0.009314	0.001655	0.000893	0.004485	0.000743	0.000600

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low	15.3307	0.1653	1.4128	0.6012	9.0200e-		0.1142	0.1142		0.1142	0.1142		1,803.6107	1,803.610	0.0346	0.0331	1,814.3287
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Condo/Townhouse	9.77416	0.1054	0.9008	0.3833	5.7500e-		0.0728	0.0728		0.0728	0.0728		1,149.9015	1,149.901	0.0220	0.0211	1,156.7348
General Office	5.72549	0.0618	0.5613	0.4715	3.3700e-		0.0427	0.0427		0.0427	0.0427		673.5868	673.5868	0.0129	0.0124	677.5896
Junior High School	3.3659	0.0363	0.3300	0.2772	1.9800e-		0.0251	0.0251		0.0251	0.0251		395.9881	395.9881	7.5900e-	7.2600e-	398.3413
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	45.2405	0.4879	4.1692	1.7741	0.0266		0.3371	0.3371		0.3371	0.3371		5,322.4106	5,322.410	0.1020	0.0976	5,354.0391
Strip Mall	1.56151	0.0168	0.1531	0.1286	9.2000e-		0.0116	0.0116		0.0116	0.0116		183.7069	183.7069	3.5200e-	3.3700e-	184.7985
Total		**0.8735**	**7.5272**	**3.6359**	**0.0477**		**0.6035**	**0.6035**		**0.6035**	**0.6035**		**9,529.2046**	**9,529.204**	**0.1826**	**0.1747**	**9,585.8319**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	35.1215					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	89.2828					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.7284	48.9519	20.8306	0.3125		3.9578	3.9578		3.9578	3.9578	0.0000	62,491.76	62,491.764	1.1978	1.1457	62,863.12
Landscaping	6.6791	2.5716	223.0899	0.0118		1.2403	1.2403		1.2403	1.2403		402.7971	402.7971	0.3841		412.4002
Total	**136.8118**	**51.5234**	**243.9205**	**0.3243**		**5.1981**	**5.1981**		**5.1981**	**5.1981**	**0.0000**	**62,894.56**	**62,894.561**	**1.5819**	**1.1457**	**63,275.52**

VMVSP Annual Operation - 2035 - El Dorado-Mountain County County, Summer

VMVSP Annual Operation - 2035
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	265.00	1000sqft	6.08	265,000.00	0
Junior High School	779.00	Student	19.00	91,580.55	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
City Park	22.00	Acre	22.00	958,320.00	0
Apartments Low Rise	551.00	Dwelling Unit	34.44	551,000.00	1576
Condo/Townhouse	708.00	Dwelling Unit	44.25	708,000.00	2025
Single Family Housing	1,573.00	Dwelling Unit	510.71	2,831,400.00	4499
Strip Mall	85.00	1000sqft	1.95	85,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Min 7% better than 2016 code (model default) per 2019 standard

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	303.05	337.00
tblFireplaces	NumberGas	389.40	433.00
tblFireplaces	NumberGas	865.15	1,120.00

tblFireplaces	NumberWood	192.85	214.00
tblFireplaces	NumberWood	247.80	275.00
tblFireplaces	NumberWood	550.55	713.00
tblLandUse	LotAcreage	2.10	19.00
tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	22.75	0.95
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	2.46	6.22
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	16.74	0.95
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	1.05	6.22
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	1.89	0.95
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	11.03	6.22
tblVehicleTrips	WD_TR	1.62	0.90
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	44.32	21.03

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	148.1339	53.978	254.7662	0.3397		5.443	5.443		5.443	5.443	0	65,898.60	65,898.60	1.6561	1.2004	66,297.73
Energy	0.9951	8.6099	4.4001	0.0543		0.6875	0.6875		0.6875	0.6875		10,855.30	10,855.30	0.2081	0.199	10,919.81
Mobile	27.8281	68.8521	281.616	1.2134	149.7551	0.6443	150.3995	39.9523	0.5985	40.5508		########	122,043.24	2.3799		########
Total	**176.957**	**131.44**	**540.7823**	**1.6074**	**149.7551**	**6.7748**	**156.53**	**39.9523**	**6.729**	**46.6813**	**0**	########	**198,797.15**	**4.2441**	**1.3994**	########

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,492.58	1,492.58	1492.58	4,275,572	4,275,572
City Park	20.84	20.84	20.84	44,490	44,490
Condo/Townhouse	6,321.91	6,321.91	6321.91	18,109,388	18,109,388
General Office Building	1,647.78	1,647.78	1647.78	3,937,793	3,937,793

Junior High School	700.64	0.00	0.00	1,125,119	1,125,119
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	14,045.72	14,045.72	14045.72	40,234,558	40,234,558
Strip Mall	1,787.51	1,787.51	1787.51	2,752,825	2,752,825
Total	26,016.98	25,316.35	25,316.35	70,479,745	70,479,745

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	63	25	12
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
City Park	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Condo/Townhouse	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
General Office Building	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Junior High School	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Other Asphalt Surfaces	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Single Family Housing	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Strip Mall	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low	15.3307	0.1653	1.4128	0.6012	9.0200e-		0.1142	0.1142		0.1142	0.1142		1,803.6107	1,803.610	0.0346	0.0331	1,814.3287
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	9.77416	0.1054	0.9008	0.3833	5.7500e-		0.0728	0.0728		0.0728	0.0728		1,149.9015	1,149.901	0.0220	0.0211	1,156.7348

General Office	13.1935	0.1423	1.2935	1.0865	7.7600e-		0.0983	0.0983		0.0983	0.0983		1,552.1782	1,552.178	0.0298	0.0285	1,561.4021
Junior High School	3.3659	0.0363	0.3300	0.2772	1.9800e-		0.0251	0.0251		0.0251	0.0251		395.9881	395.9881	7.5900e-	7.2600e-	398.3413
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	49.0443	0.5289	4.5198	1.9233	0.0289		0.3654	0.3654		0.3654	0.3654		5,769.9186	5,769.918	0.1106	0.1058	5,804.2064
Strip Mall	1.56151	0.0168	0.1531	0.1286	9.2000e-		0.0116	0.0116		0.0116	0.0116		183.7069	183.7069	3.5200e-	3.3700e-	184.7985
Total		**0.9951**	**8.6099**	**4.4001**	**0.0543**		**0.6875**	**0.6875**		**0.6875**	**0.6875**		**10,855.304**	**10,855.30**	**0.2081**	**0.1990**	**10,919.811**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	37.9562					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	97.2035					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	6.0021	51.2908	21.8259	0.3274		4.1469	4.1469		4.1469	4.1469	0.0000	65,477.64	65,477.647	1.2550	1.2004	65,866.74
Landscaping	6.9721	2.6872	232.9403	0.0124		1.2961	1.2961		1.2961	1.2961		420.9544	420.9544	0.4011		430.9829
Total	**148.1339**	**53.9780**	**254.7662**	**0.3397**		**5.4430**	**5.4430**		**5.4430**	**5.4430**	**0.0000**	**65,898.60**	**65,898.601**	**1.6561**	**1.2004**	**66,297.73**

VMVSP Annual Operation - 2036 - El Dorado-Mountain County County, Summer

VMVSP Annual Operation - 2036
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	365.00	1000sqft	8.38	365,000.00	0
Junior High School	779.00	Student	19.00	91,580.55	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
City Park	34.00	Acre	34.00	1,481,040.00	0
Apartments Low Rise	551.00	Dwelling Unit	34.44	551,000.00	1576
Condo/Townhouse	708.00	Dwelling Unit	44.25	708,000.00	2025
Single Family Housing	1,650.00	Dwelling Unit	535.71	2,970,000.00	4719
Strip Mall	85.00	1000sqft	1.95	85,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Min 7% better than 2016 code (model default) per 2019 standard

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	303.05	337.00
tblFireplaces	NumberGas	389.40	433.00
tblFireplaces	NumberGas	907.50	1,175.00

tblFireplaces	NumberWood	192.85	214.00
tblFireplaces	NumberWood	247.80	275.00
tblFireplaces	NumberWood	577.50	748.00
tblLandUse	LotAcreage	2.10	19.00
tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	22.75	0.95
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	2.46	6.22
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	16.74	0.95
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	1.05	6.22
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	1.89	0.95
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	11.03	6.22
tblVehicleTrips	WD_TR	1.62	0.90
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	44.32	21.03

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	155.4548	55.5441	261.7431	0.3496		5.599	5.599		5.599	5.599	0	67,815.95	67,815.95	1.7036	1.2354	68,226.68
Energy	1.0747	9.3193	4.9043	0.0586		0.7425	0.7425		0.7425	0.7425		11,723.48	11,723.48	0.2247	0.2149	11,793.14
Mobile	29.2266	72.284	295.5111	1.273	157.102	0.6761	157.7781	41.9123	0.628	42.5403		########	128,038.42	2.4972		########
Total	**185.756**	**137.1474**	**562.1585**	**1.6812**	**157.102**	**7.0176**	**164.1195**	**41.9123**	**6.9695**	**48.8818**	**0**	########	**207,577.84**	**4.4255**	**1.4503**	########

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,492.58	1,492.58	1492.58	4,275,572	4,275,572
City Park	32.21	32.21	32.21	68,758	68,758
Condo/Townhouse	6,321.91	6,321.91	6321.91	18,109,388	18,109,388
General Office Building	2,269.59	2,269.59	2269.59	5,423,753	5,423,753

Junior High School	700.64	0.00	0.00	1,125,119	1,125,119
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	14,733.27	14,733.27	14733.27	42,204,081	42,204,081
Strip Mall	1,787.51	1,787.51	1787.51	2,752,825	2,752,825
Total	27,337.71	26,637.07	26,637.07	73,959,496	73,959,496

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	63	25	12
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
City Park	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Condo/Townhouse	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
General Office Building	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Junior High School	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Other Asphalt Surfaces	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Single Family Housing	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Strip Mall	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low	15.3307	0.1653	1.4128	0.6012	9.0200e-		0.1142	0.1142		0.1142	0.1142		1,803.6107	1,803.610	0.0346	0.0331	1,814.3287
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Condo/Townhouse	9.77416	0.1054	0.9008	0.3833	5.7500e-		0.0728	0.0728		0.0728	0.0728		1,149.9015	1,149.901	0.0220	0.0211	1,156.7348
General Office	18.1722	0.1960	1.7816	1.4965	0.0107		0.1354	0.1354		0.1354	0.1354		2,137.9059	2,137.905	0.0410	0.0392	2,150.6104
Junior High School	3.3659	0.0363	0.3300	0.2772	1.9800e-		0.0251	0.0251		0.0251	0.0251		395.9881	395.9881	7.5900e-	7.2600e-	398.3413
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	51.4451	0.5548	4.7410	2.0175	0.0303		0.3833	0.3833		0.3833	0.3833		6,052.3622	6,052.362	0.1160	0.1110	6,088.3284
Strip Mall	1.56151	0.0168	0.1531	0.1286	9.2000e-		0.0116	0.0116		0.0116	0.0116		183.7069	183.7069	3.5200e-	3.3700e-	184.7985
Total		**1.0747**	**9.3193**	**4.9043**	**0.0586**		**0.7425**	**0.7425**		**0.7425**	**0.7425**		**11,723.475**	**11,723.47**	**0.2247**	**0.2149**	**11,793.142**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	39.7791					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	102.3365					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	6.1768	52.7838	22.4612	0.3369		4.2676	4.2676		4.2676	4.2676	0.0000	67,383.52	67,383.529	1.2915	1.2354	67,783.95
Landscaping	7.1624	2.7603	239.2819	0.0127		1.3314	1.3314		1.3314	1.3314		432.4175	432.4175	0.4121		442.7197
Total	**155.4548**	**55.5441**	**261.7431**	**0.3496**		**5.5990**	**5.5990**		**5.5990**	**5.5990**	**0.0000**	**67,815.94**	**67,815.946**	**1.7036**	**1.2354**	**68,226.67**

VMVSP Annual Operation - 2037 - El Dorado-Mountain County County, Summer

VMVSP Annual Operation - 2037
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	365.00	1000sqft	8.38	365,000.00	0
Junior High School	779.00	Student	19.00	91,580.55	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
City Park	34.00	Acre	34.00	1,481,040.00	0
Apartments Low Rise	551.00	Dwelling Unit	34.44	551,000.00	1576
Condo/Townhouse	708.00	Dwelling Unit	44.25	708,000.00	2025
Single Family Housing	1,737.00	Dwelling Unit	563.96	3,126,600.00	4968
Strip Mall	100.00	1000sqft	2.30	100,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Min 7% better than 2016 code (model default) per 2019 standard

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	303.05	337.00
tblFireplaces	NumberGas	389.40	433.00
tblFireplaces	NumberGas	955.35	1,237.00

tblFireplaces	NumberWood	192.85	214.00
tblFireplaces	NumberWood	247.80	275.00
tblFireplaces	NumberWood	607.95	787.00
tblLandUse	LotAcreage	2.10	19.00
tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	22.75	0.95
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	2.46	6.22
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	16.74	0.95
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	1.05	6.22
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	1.89	0.95
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	11.03	6.22
tblVehicleTrips	WD_TR	1.62	0.90
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	44.32	21.03

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	160.9746	57.302	269.61	0.3607		5.7743	5.7743		5.7743	5.7743	0	69,967.70	69,967.70	1.7569	1.2746	70,391.44
Energy	1.1069	9.5963	5.0334	0.0604		0.7648	0.7648		0.7648	0.7648		12,075.02	12,075.02	0.2314	0.2214	12,146.77
Mobile	30.3636	75.0352	306.4501	1.3195	162.826	0.701	163.527	43.4394	0.6512	44.0906		########	132,720.50	2.5894		########
Total	**192.4451**	**141.9335**	**581.0934**	**1.7406**	**162.826**	**7.2401**	**170.066**	**43.4394**	**7.1902**	**50.6296**	**0**	########	**214,763.22**	**4.5778**	**1.496**	########

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,492.58	1,492.58	1492.58	4,275,572	4,275,572
City Park	32.21	32.21	32.21	68,758	68,758
Condo/Townhouse	6,321.91	6,321.91	6321.91	18,109,388	18,109,388
General Office Building	2,269.59	2,269.59	2269.59	5,423,753	5,423,753

Junior High School	700.64	0.00	0.00	1,125,119	1,125,119
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	15,510.12	15,510.12	15510.12	44,429,387	44,429,387
Strip Mall	2,102.95	2,102.95	2102.95	3,238,617	3,238,617
Total	28,430.00	27,729.36	27,729.36	76,670,594	76,670,594

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	63	25	12
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
City Park	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Condo/Townhouse	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
General Office Building	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Junior High School	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Other Asphalt Surfaces	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Single Family Housing	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Strip Mall	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low	15.3307	0.1653	1.4128	0.6012	9.0200e-		0.1142	0.1142		0.1142	0.1142		1,803.6107	1,803.610	0.0346	0.0331	1,814.3287
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	9.77416	0.1054	0.9008	0.3833	5.7500e-		0.0728	0.0728		0.0728	0.0728		1,149.9015	1,149.901	0.0220	0.0211	1,156.7348
General Office	18.1722	0.1960	1.7816	1.4965	0.0107		0.1354	0.1354		0.1354	0.1354		2,137.9059	2,137.905	0.0410	0.0392	2,150.6104

Junior High School	3.3659	0.0363	0.3300	0.2772	1.9800e-		0.0251	0.0251		0.0251	0.0251		395.9881	395.9881	7.5900e-	7.2600e-	398.3413
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	54.1576	0.5841	4.9910	2.1238	0.0319		0.4035	0.4035		0.4035	0.4035		6,371.4868	6,371.486	0.1221	0.1168	6,409.3493
Strip Mall	1.83707	0.0198	0.1801	0.1513	1.0800e-		0.0137	0.0137		0.0137	0.0137		216.1257	216.1257	4.1400e-	3.9600e-	217.4100
Total		**1.1069**	**9.5963**	**5.0333**	**0.0604**		**0.7648**	**0.7648**		**0.7648**	**0.7648**		**12,075.018**	**12,075.01**	**0.2314**	**0.2214**	**12,146.774**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	41.2167					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	106.0087					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	6.3729	54.4592	23.1741	0.3476		4.4031	4.4031		4.4031	4.4031	0.0000	69,522.35	69,522.352	1.3325	1.2746	69,935.48
Landscaping	7.3764	2.8428	246.4359	0.0131		1.3712	1.3712		1.3712	1.3712		445.3448	445.3448	0.4244		455.9548
Total	**160.9746**	**57.3020**	**269.6100**	**0.3607**		**5.7743**	**5.7743**		**5.7743**	**5.7743**	**0.0000**	**69,967.69**	**69,967.697**	**1.7569**	**1.2746**	**70,391.44**

VMVSP Annual Operation - 2038 - El Dorado-Mountain County County, Summer

VMVSP Annual Operation - 2038
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	365.00	1000sqft	8.38	365,000.00	0
Junior High School	779.00	Student	19.00	91,580.55	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
City Park	39.00	Acre	39.00	1,698,840.00	0
Apartments Low Rise	551.00	Dwelling Unit	34.44	551,000.00	1576
Condo/Townhouse	708.00	Dwelling Unit	44.25	708,000.00	2025
Single Family Housing	1,814.00	Dwelling Unit	588.96	3,265,200.00	5188
Strip Mall	100.00	1000sqft	2.30	100,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Min 7% better than 2016 code (model default) per 2019 standard

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	303.05	433.00
tblFireplaces	NumberGas	389.40	337.00
tblFireplaces	NumberGas	997.70	1,292.00

tblFireplaces	NumberWood	192.85	214.00
tblFireplaces	NumberWood	247.80	275.00
tblFireplaces	NumberWood	634.90	822.00
tblLandUse	LotAcreage	2.10	19.00
tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	22.75	0.95
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	2.46	6.22
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	16.74	0.95
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	1.05	6.22
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	1.89	0.95
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	11.03	6.22
tblVehicleTrips	WD_TR	1.62	0.90
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	44.32	21.03

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	165.5039	58.868	276.576	0.3705		5.9302	5.9302		5.9302	5.9302	0	71,885.02	71,885.02	1.8043	1.3095	72,320.36
Energy	1.1328	9.8175	5.1275	0.0618		0.7826	0.7826		0.7826	0.7826		12,357.46	12,357.46	0.2369	0.2266	12,430.90
Mobile	31.1149	76.9155	314.2494	1.3533	167.0056	0.7189	167.7245	44.5544	0.6678	45.2222		########	136,120.72	2.6554		########
Total	**197.7516**	**145.601**	**595.953**	**1.7857**	**167.0056**	**7.4317**	**174.4373**	**44.5544**	**7.3806**	**51.9351**	**0**	########	**220,363.20**	**4.6966**	**1.5361**	########

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,492.58	1,492.58	1492.58	4,275,572	4,275,572
City Park	36.94	36.94	36.94	78,869	78,869
Condo/Townhouse	6,321.91	6,321.91	6321.91	18,109,388	18,109,388
General Office Building	2,269.59	2,269.59	2269.59	5,423,753	5,423,753

Junior High School	700.64	0.00	0.00	1,125,119	1,125,119
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	16,197.67	16,197.67	16197.67	46,398,911	46,398,911
Strip Mall	2,102.95	2,102.95	2102.95	3,238,617	3,238,617
Total	29,122.29	28,421.65	28,421.65	78,650,230	78,650,230

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	63	25	12
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
City Park	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Condo/Townhouse	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
General Office Building	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Junior High School	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Other Asphalt Surfaces	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Single Family Housing	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Strip Mall	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low	15.3307	0.1653	1.4128	0.6012	9.0200e-		0.1142	0.1142		0.1142	0.1142		1,803.6107	1,803.610	0.0346	0.0331	1,814.3287
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Condo/Townhouse	9.77416	0.1054	0.9008	0.3833	5.7500e-		0.0728	0.0728		0.0728	0.0728		1,149.9015	1,149.901	0.0220	0.0211	1,156.7348
General Office	18.1722	0.1960	1.7816	1.4965	0.0107		0.1354	0.1354		0.1354	0.1354		2,137.9059	2,137.905	0.0410	0.0392	2,150.6104
Junior High School	3.3659	0.0363	0.3300	0.2772	1.9800e-		0.0251	0.0251		0.0251	0.0251		395.9881	395.9881	7.5900e-	7.2600e-	398.3413
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	56.5584	0.6099	5.2123	2.2180	0.0333		0.4214	0.4214		0.4214	0.4214		6,653.9303	6,653.930	0.1275	0.1220	6,693.4713
Strip Mall	1.83707	0.0198	0.1801	0.1513	1.0800e-		0.0137	0.0137		0.0137	0.0137		216.1257	216.1257	4.1400e-	3.9600e-	217.4100
Total		**1.1328**	**9.8175**	**5.1275**	**0.0618**		**0.7827**	**0.7827**		**0.7827**	**0.7827**		**12,357.462**	**12,357.46**	**0.2369**	**0.2266**	**12,430.896**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	42.4047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	108.9860					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	6.5476	55.9521	23.8094	0.3571		4.5238	4.5238		4.5238	4.5238	0.0000	71,428.23	71,428.235	1.3690	1.3095	71,852.69
Landscaping	7.5657	2.9159	252.7666	0.0134		1.4064	1.4064		1.4064	1.4064		456.7844	456.7844	0.4353		467.6667
Total	**165.5040**	**58.8680**	**276.5760**	**0.3705**		**5.9302**	**5.9302**		**5.9302**	**5.9302**	**0.0000**	**71,885.01**	**71,885.019**	**1.8043**	**1.3095**	**72,320.36**

VMVSP Full Build - 2039 without VMVSP - El Dorado-Mountain County County, Annual

VMVSP Full Build - 2039 without VMVSP
El Dorado-Mountain County County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	722.00	Dwelling Unit	84.00	722,000.00	2065
Apartments Low Rise	551.00	Dwelling Unit	28.00	551,000.00	1576
Single Family Housing	1,963.00	Dwelling Unit	685.00	3,533,400.00	5614
Junior High School	779.00	Student	19.00	91,580.55	0
Elementary School	614.00	Student	16.00	51,332.47	0
Strip Mall	100.00	1000sqft	2.30	100,000.00	0
General Office Building	375.00	1000sqft	8.61	375,000.00	0
City Park	58.00	Acre	58.00	2,526,480.00	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	53	**CH4 Intensity**	0.007	**N2O Intensity**	0.001

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E and eGrid emission factors adjusted for SB100 and RPS
Land Use - Land use assumptions from project description
Vehicle Trips - Trip rates from F&P
Woodstoves - Hearth assumptions provided by applicant
Water And Wastewater - Water assumptions from WSP water study
Energy Mitigation - Min 7% above 2016 code assumed for 2019 Title 24 standards

Table Name	Column Name	Default Value	New Value

tblFireplaces	NumberGas	397.10	441.00
tblFireplaces	NumberGas	1,079.65	1,398.00
tblFireplaces	NumberGas	303.05	337.00
tblFireplaces	NumberWood	252.70	281.00
tblFireplaces	NumberWood	687.05	890.00
tblFireplaces	NumberWood	192.85	214.00
tblLandUse	LotAcreage	45.13	84.00
tblLandUse	LotAcreage	34.44	28.00
tblLandUse	LotAcreage	637.34	685.00
tblLandUse	LotAcreage	2.10	19.00
tblLandUse	LotAcreage	1.18	16.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.007
tblProjectCharacteristics	CO2IntensityFactor	641.35	53
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.001
tblVehicleTrips	ST_TR	5.67	9.70
tblVehicleTrips	ST_TR	9.91	9.70
tblVehicleTrips	ST_TR	7.16	6.44
tblVehicleTrips	ST_TR	22.75	1.85
tblVehicleTrips	ST_TR	2.46	9.56
tblVehicleTrips	ST_TR	42.04	42.70
tblVehicleTrips	SU_TR	4.84	9.70
tblVehicleTrips	SU_TR	8.62	9.70
tblVehicleTrips	SU_TR	6.07	6.44
tblVehicleTrips	SU_TR	16.74	1.85
tblVehicleTrips	SU_TR	1.05	9.56
tblVehicleTrips	SU_TR	20.43	42.70
tblVehicleTrips	WD_TR	5.81	9.70
tblVehicleTrips	WD_TR	9.52	9.70
tblVehicleTrips	WD_TR	6.59	6.44
tblVehicleTrips	WD_TR	1.89	1.85
tblVehicleTrips	WD_TR	11.03	9.56
tblVehicleTrips	WD_TR	44.32	42.70
tblWater	IndoorWaterUseRate	47,041,206.50	54,832,366.81
tblWater	IndoorWaterUseRate	127,897,352.29	247,159,351.62
tblWater	IndoorWaterUseRate	35,899,868.12	17,619,264.68
tblWater	IndoorWaterUseRate	1,488,483.36	2,087,534.59
tblWater	IndoorWaterUseRate	66,650,155.50	16,069,298.05
tblWater	IndoorWaterUseRate	1,888,482.96	2,478,947.33
tblWater	IndoorWaterUseRate	7,407,252.15	6,270,945.58
tblWater	OutdoorWaterUseRate	29,656,412.79	46,190,309.00
tblWater	OutdoorWaterUseRate	80,630,939.49	208,204,888.60
tblWater	OutdoorWaterUseRate	22,632,525.55	14,842,315.36
tblWater	OutdoorWaterUseRate	69,105,918.28	47,937,535.22

tblWater	OutdoorWaterUseRate	3,827,528.64	6,337,158.59
tblWater	OutdoorWaterUseRate	40,850,095.30	13,218,293.56
tblWater	OutdoorWaterUseRate	4,856,099.04	7,525,375.83
tblWater	OutdoorWaterUseRate	0.00	13,366,099.77
tblWater	OutdoorWaterUseRate	4,539,928.74	5,158,358.46

2.0 Emissions Summarv

Operational No VMVSP

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	277.7691	5.0162	323.7815	0.5348		42.018	42.018		42.018	42.018	3,941.79	1,753.21	5,695.00	3.1282	0.3215	5,869.02
Energy	0.221	1.9157	1.0062	0.0121		0.1527	0.1527		0.1527	0.1527	0	2,906.36	2,906.36	0.137	0.0537	2,925.78
Mobile	6.01	19.3685	70.2003	0.3019	38.0999	0.1715	38.2714	10.1994	0.1593	10.3587	0	27,555.11	27,555.11	0.5665	0	27,569.28
Waste						0	0		0	0	548.4897	0	548.4897	32.4148	0	1,358.86
Water						0	0		0	0	109.9341	75.6008	185.5348	11.3013	0.268	547.9419
Total	**284**	**26.3004**	**394.988**	**0.8487**	**38.0999**	**42.3422**	**80.4421**	**10.1994**	**42.33**	**52.5294**	**4,600.22**	**32,290.28**	**36,890.50**	**47.5477**	**0.6432**	**38,270.87**

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	7,003.40	7,003.40	7003.40	20,061,538	20,061,538
Single Family Housing	19,041.10	19,041.10	19041.10	54,544,042	54,544,042
Apartments Low Rise	3,548.44	3,548.44	3548.44	10,164,658	10,164,658
City Park	107.30	107.30	107.30	229,070	229,070
Elementary School	792.06	0.00	0.00	1,247,460	1,247,460
General Office Building	3,585.00	3,585.00	3585.00	8,567,264	8,567,264
Junior High School	1,261.98	0.00	0.00	2,026,554	2,026,554
Other Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	4,270.00	4,270.00	4270.00	6,575,941	6,575,941
Total	39,609.28	37,555.24	37,555.24	103,416,526	103,416,526

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3

City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	63	25	12
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Single Family Housing	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Apartments Low Rise	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
City Park	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Elementary School	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
General Office Building	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Junior High School	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Other Asphalt Surfaces	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Strip Mall	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low	5.5957e+0	0.0302	0.2578	0.1097	1.6500e-		0.0209	0.0209		0.0209	0.0209	0.0000	298.6080	298.6080	5.7200e-	5.4700e-003	300.3825
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	3.63811e+	0.0196	0.1676	0.0713	1.0700e-		0.0136	0.0136		0.0136	0.0136	0.0000	194.1437	194.1437	3.7200e-	3.5600e-003	195.2974
Elementary School	688625	3.7100e-	0.0338	0.0284	2.0000e-		2.5700e-	2.5700e-		2.5700e-	2.5700e-003	0.0000	36.7477	36.7477	7.0000e-	6.7000e-004	36.9660
General Office	6.81457e+	0.0368	0.3341	0.2806	2.0000e-		0.0254	0.0254		0.0254	0.0254	0.0000	363.6517	363.6517	6.9700e-	6.6700e-003	365.8127
Junior High School	1.22855e+	6.6200e-	0.0602	0.0506	3.6000e-		4.5800e-	4.5800e-		4.5800e-	4.5800e-003	0.0000	65.5603	65.5603	1.2600e-	1.2000e-003	65.9499
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	2.23395e+	0.1205	1.0294	0.4380	6.5700e-		0.0832	0.0832		0.0832	0.0832	0.0000	1,192.1197	1,192.119	0.0229	0.0219	1,199.2039
Strip Mall	670530	3.6200e-	0.0329	0.0276	2.0000e-		2.5000e-	2.5000e-		2.5000e-	2.5000e-003	0.0000	35.7820	35.7820	6.9000e-	6.6000e-004	35.9947
Total		**0.2210**	**1.9158**	**1.0063**	**0.0121**		**0.1527**	**0.1527**		**0.1527**	**0.1527**	**0.0000**	**2,186.6130**	**2,186.613**	**0.0419**	**0.0401**	**2,199.6069**

5.3 Energy by Land Use - Electricity

	Electricity	Total CO2	CH4	N2O	CO2e

Land Use	kWh/yr	MT/yr			
Apartments Low	2.59231e+	62.3201	8.2300e-	1.1800e-	62.8763
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	4.11539e+	98.9356	0.0131	1.8700e-	99.8186
Elementary School	342726	8.2393	1.0900e-	1.6000e-	8.3128
General Office	4.05221e+	97.4168	0.0129	1.8400e-	98.2862
Junior High School	611447	14.6994	1.9400e-	2.8000e-	14.8306
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000
Single Family	1.6908e+0	406.4752	0.0537	7.6700e-	410.1028
Strip Mall	1.31693e+	31.6595	4.1800e-	6.0000e-	31.9421
Total		**719.7460**	**0.0951**	**0.0136**	**726.1694**

6.0 Area Detail

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural	8.2514					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer	21.2394					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	247.5608	4.7398	299.8205	0.5335		41.8847	41.8847		41.8847	41.8847	3,941.7922	1,713.9260	5,655.7181	3.0907	0.3215	5,828.7959
Landscaping	0.7175	0.2764	23.9609	1.2700e-		0.1333	0.1333		0.1333	0.1333	0.0000	39.2834	39.2834	0.0375	0.0000	40.2197
Total	**277.7691**	**5.0162**	**323.7815**	**0.5348**		**42.0180**	**42.0180**		**42.0180**	**42.0180**	**3,941.7922**	**1,753.2094**	**5,695.0015**	**3.1281**	**0.3215**	**5,869.0156**

7.0 Water Detail

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low	17.6193 /	9.1306	0.5746	0.0136	27.5551
City Park	0 / 47.9375	4.0335	5.3000e-	8.0000e-	4.0695
Condo/Townhouse	54.8324 /	28.4150	1.7882	0.0424	85.7533
Elementary School	2.08753 /	1.4671	0.0681	1.6200e-	3.6534
General Office	16.0693 /	8.3006	0.5240	0.0124	25.1040
Junior High School	2.47895 /	1.7421	0.0809	1.9300e-	4.3384
Other Asphalt	0 / 13.3661	1.1246	1.5000e-	2.0000e-	1.1347
Single Family	247.159 /	128.0820	8.0603	0.1911	386.5368
Strip Mall	6.27095 /	3.2393	0.2045	4.8500e-	9.7967
Total		**185.5348**	**11.3013**	**0.2680**	**547.9419**

8.0 Waste Detail

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low	253.46	51.4501	3.0406	0.0000	127.4654
City Park	4.99	1.0129	0.0599	0.0000	2.5095

Condo/Townhouse	332.12	67.4174	3.9843	0.0000	167.0237
Elementary School	112.05	22.7451	1.3442	0.0000	56.3501
General Office	348.75	70.7931	4.1838	0.0000	175.3869
Junior High School	142.17	28.8592	1.7055	0.0000	71.4975
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000
Single Family	1403.5	284.8978	16.8370	0.0000	705.8223
Strip Mall	105	21.3141	1.2596	0.0000	52.8047
Total		**548.4897**	**32.4148**	**0.0000**	**1,358.860**

VMVSP Full Build - 2039 with VMVSP - El Dorado-Mountain County County, Annual

VMVSP Full Build - 2039 with VMVSP
El Dorado-Mountain County County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	722.00	Dwelling Unit	84.00	722,000.00	2065
Apartments Low Rise	551.00	Dwelling Unit	28.00	551,000.00	1576
Single Family Housing	1,963.00	Dwelling Unit	685.00	3,533,400.00	5614
Junior High School	779.00	Student	19.00	91,580.55	0
Elementary School	614.00	Student	16.00	51,332.47	0
Strip Mall	100.00	1000sqft	2.30	100,000.00	0
General Office Building	375.00	1000sqft	8.61	375,000.00	0
City Park	58.00	Acre	58.00	2,526,480.00	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	53	**CH4 Intensity**	0.007	**N2O Intensity**	0.001

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E and eGrid emission factors adjusted for SB100 and RPS
Land Use - Land use assumptions from project description
Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Water And Wastewater - Water assumptions from WSP water study (includes 20% reduction in indoor residential water use per VMVSP Policy 9.36
Energy Mitigation - Energy Star appliances per VMVSP 9.16. Conservatively only included a 7% exceedance over 2016 Title 24 (model default) per min
Water Mitigation - Recycled water per WSA study (VMVSP Policy 9.40), water efficient irrigation (VMVSP Policy 9.42), turf (VMVSP Policy 9.45)

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	397.10	441.00
tblFireplaces	NumberGas	1,079.65	1,398.00
tblFireplaces	NumberGas	303.05	337.00
tblFireplaces	NumberWood	252.70	281.00
tblFireplaces	NumberWood	687.05	890.00
tblFireplaces	NumberWood	192.85	214.00
tblLandUse	LotAcreage	45.13	84.00
tblLandUse	LotAcreage	34.44	28.00
tblLandUse	LotAcreage	637.34	685.00
tblLandUse	LotAcreage	2.10	19.00
tblLandUse	LotAcreage	1.18	16.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.007
tblProjectCharacteristics	CO2IntensityFactor	641.35	53
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.001
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	22.75	0.95
tblVehicleTrips	ST_TR	2.46	6.22
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	16.74	0.95
tblVehicleTrips	SU_TR	1.05	6.22
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	1.89	0.95
tblVehicleTrips	WD_TR	1.29	0.38
tblVehicleTrips	WD_TR	11.03	6.22
tblVehicleTrips	WD_TR	1.62	0.90
tblVehicleTrips	WD_TR	44.32	21.03
tblWater	IndoorWaterUseRate	47,041,206.50	43,865,893.45
tblWater	IndoorWaterUseRate	127,897,352.29	197,727,481.29
tblWater	IndoorWaterUseRate	35,899,868.12	14,095,411.75
tblWater	IndoorWaterUseRate	1,488,483.36	2,087,534.59
tblWater	IndoorWaterUseRate	66,650,155.50	16,069,298.05
tblWater	IndoorWaterUseRate	1,888,482.96	2,478,947.33
tblWater	IndoorWaterUseRate	7,407,252.15	6,270,945.58

tblWater	OutdoorWaterUseRate	29,656,412.79	46,190,309.00
tblWater	OutdoorWaterUseRate	80,630,939.49	208,204,888.60
tblWater	OutdoorWaterUseRate	22,632,525.55	14,842,315.36
tblWater	OutdoorWaterUseRate	69,105,918.28	47,937,535.22
tblWater	OutdoorWaterUseRate	3,827,528.64	6,337,158.59
tblWater	OutdoorWaterUseRate	40,850,095.30	13,218,293.56
tblWater	OutdoorWaterUseRate	4,856,099.04	7,525,375.83
tblWater	OutdoorWaterUseRate	0.00	13,366,099.77
tblWater	OutdoorWaterUseRate	4,539,928.74	5,158,358.46

2.0 Emissions Summary

Operational with CalEEMod Quantifable VMVSP Policies

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	30.4917	2.6983	24.9915	0.0167		0.3291	0.3291		0.3291	0.3291	0	2,844.10	2,844.10	0.0912	0.0514	2,861.71
Energy	0.221	1.9157	1.0062	0.0121		0.1527	0.1527		0.1527	0.1527	0	2,898.43	2,898.43	0.1359	0.0535	2,917.77
Mobile	4.7629	15.4273	56.2535	0.2431	30.7145	0.1378	30.8522	8.2223	0.128	8.3503	0	22,189.89	22,189.89	0.4547	0	22,201.25
Waste						0	0		0	0	548.4897	0	548.4897	32.4148	0	1,358.86
Water						0	0		0	0	89.6545	58.6592	148.3137	9.2161	0.2185	443.8407
Total	**35.4755**	**20.0413**	**82.2513**	**0.2719**	**30.7145**	**0.6195**	**31.334**	**8.2223**	**0.6097**	**8.8321**	**638.1442**	**27,991.08**	**28,629.22**	**42.3128**	**0.3235**	**29,783.43**

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	6,446.92	6,446.92	6446.92	18,467,483	18,467,483
Single Family Housing	17,528.13	17,528.13	17528.13	50,210,068	50,210,068
Apartments Low Rise	1,492.58	1,492.58	1492.58	4,275,572	4,275,572
City Park	54.94	54.94	54.94	117,293	117,293
Elementary School	230.72	0.00	0.00	363,368	363,368
General Office Building	2,331.77	2,331.77	2331.77	5,572,349	5,572,349
Junior High School	700.64	0.00	0.00	1,125,119	1,125,119
Other Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	2,102.95	2,102.95	2102.95	3,238,617	3,238,617
Total	30,888.65	29,957.30	29,957.30	83,369,869	83,369,869

4.3 Trip Type Information

	Miles	Trip %	Trip Purpose %

Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	63	25	12
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Single Family Housing	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Apartments Low Rise	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
City Park	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Elementary School	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
General Office Building	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Junior High School	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Other Asphalt Surfaces	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Strip Mall	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24
Install Energy Efficient Appliances

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low	5.5957e+0	0.0302	0.2578	0.1097	1.6500e-		0.0209	0.0209		0.0209	0.0209	0.0000	298.6080	298.6080	5.7200e-	5.4700e-003	300.3825
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	3.63811e+	0.0196	0.1676	0.0713	1.0700e-		0.0136	0.0136		0.0136	0.0136	0.0000	194.1437	194.1437	3.7200e-	3.5600e-003	195.2974
Elementary School	688625	3.7100e-	0.0338	0.0284	2.0000e-		2.5700e-	2.5700e-		2.5700e-	2.5700e-	0.0000	36.7477	36.7477	7.0000e-	6.7000e-004	36.9660
General Office	6.81457e+	0.0368	0.3341	0.2806	2.0000e-		0.0254	0.0254		0.0254	0.0254	0.0000	363.6517	363.6517	6.9700e-	6.6700e-003	365.8127
Junior High School	1.22855e+	6.6200e-	0.0602	0.0506	3.6000e-		4.5800e-	4.5800e-		4.5800e-	4.5800e-	0.0000	65.5603	65.5603	1.2600e-	1.2000e-003	65.9499
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	2.23395e+	0.1205	1.0294	0.4380	6.5700e-		0.0832	0.0832		0.0832	0.0832	0.0000	1,192.1197	1,192.119	0.0229	0.0219	1,199.2039
Strip Mall	670530	3.6200e-	0.0329	0.0276	2.0000e-		2.5000e-	2.5000e-		2.5000e-	2.5000e-	0.0000	35.7820	35.7820	6.9000e-	6.6000e-004	35.9947

Total		**0.2210**	**1.9158**	**1.0063**	**0.0121**		**0.1527**	**0.1527**		**0.1527**	**0.1527**	**0.0000**	**2,186.6130**	**2,186.613**	**0.0419**	**0.0401**	**2,199.6069**

5.3 Energy by Land Use - Electricity

	Electricity	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low	2.59231e+	62.3201	8.2300e-	1.1800e-	62.8763
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	4.11539e+	98.9356	0.0131	1.8700e-	99.8186
Elementary School	342726	8.2393	1.0900e-	1.6000e-	8.3128
General Office	4.05221e+	97.4168	0.0129	1.8400e-	98.2862
Junior High School	611447	14.6994	1.9400e-	2.8000e-	14.8306
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000
Single Family	1.6578e+0	398.5418	0.0526	7.5200e-	402.0986
Strip Mall	1.31693e+	31.6595	4.1800e-	6.0000e-	31.9421
Total		**711.8126**	**0.0940**	**0.0135**	**718.1652**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural	8.2514					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer	21.2394					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2834	2.4219	1.0306	0.0155		0.1958	0.1958		0.1958	0.1958	0.0000	2,804.8210	2,804.8210	0.0538	0.0514	2,821.4886
Landscaping	0.7175	0.2764	23.9609	1.2700e-		0.1333	0.1333		0.1333	0.1333	0.0000	39.2834	39.2834	0.0375	0.0000	40.2197
Total	**30.4917**	**2.6983**	**24.9915**	**0.0167**		**0.3291**	**0.3291**		**0.3291**	**0.3291**	**0.0000**	**2,844.1044**	**2,844.1044**	**0.0912**	**0.0514**	**2,861.7083**

7.0 Water Detail

Use Reclaimed Water
Turf Reduction
Use Water Efficient Irrigation System

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low	14.0954 /	7.2013	0.4597	0.0109	21.9400
City Park	0 / 34.3902	2.8936	3.8000e-	5.0000e-	2.9195
Condo/Townhouse	43.8659 /	22.4110	1.4305	0.0339	68.2787
Elementary School	2.08753 /	1.3164	0.0681	1.6200e-	3.5014
General Office	16.0693 /	7.9863	0.5240	0.0124	24.7869
Junior High School	2.47895 /	1.5632	0.0809	1.9200e-	4.1579

Other Asphalt	0 / 9.58879	0.8068	1.1000e-	2.0000e-	0.8140
Single Family	197.727 /	101.0185	6.4480	0.1529	307.7694
Strip Mall	6.27095 /	3.1166	0.2045	4.8500e-	9.6729
Total		**148.3137**	**9.2161**	**0.2185**	**443.8407**

8.0 Waste Detail

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low	253.46	51.4501	3.0406	0.0000	127.4654
City Park	4.99	1.0129	0.0599	0.0000	2.5095
Condo/Townhouse	332.12	67.4174	3.9843	0.0000	167.0237
Elementary School	112.05	22.7451	1.3442	0.0000	56.3501
General Office	348.75	70.7931	4.1838	0.0000	175.3869
Junior High School	142.17	28.8592	1.7055	0.0000	71.4975
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000
Single Family	1403.5	284.8978	16.8370	0.0000	705.8223
Strip Mall	105	21.3141	1.2596	0.0000	52.8047
Total		**548.4897**	**32.4148**	**0.0000**	**1,358.860**

VMVSP Full Build - 2039 with VMVSP - El Dorado-Mountain County County, Summer

VMVSP Full Build - 2039 with VMVSP
El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	722.00	Dwelling Unit	84.00	722,000.00	2065
Apartments Low Rise	551.00	Dwelling Unit	28.00	551,000.00	1576
Single Family Housing	1,963.00	Dwelling Unit	685.00	3,533,400.00	5614
Junior High School	779.00	Student	19.00	91,580.55	0
Elementary School	614.00	Student	16.00	51,332.47	0
Strip Mall	100.00	1000sqft	2.30	100,000.00	0
General Office Building	375.00	1000sqft	8.61	375,000.00	0
City Park	58.00	Acre	58.00	2,526,480.00	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	53	**CH4 Intensity**	0.007	**N2O Intensity**	0.001

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E and eGrid emission factors adjusted for SB100 and RPS
Land Use - Land use assumptions from project description
Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Water And Wastewater - Water assumptions from WSP water study (includes 20% reduction in indoor residential water use per VMVSP Policy 9.36
Energy Mitigation - Energy Star appliances per VMVSP 9.16. Conservatively only included a 7% exceedance over 2016 Title 24 (model default) per min
Water Mitigation - Recycled water per WSA study (VMVSP Policy 9.40), water efficient irrigation (VMVSP Policy 9.42), turf (VMVSP Policy 9.45)

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	397.10	441.00
tblFireplaces	NumberGas	1,079.65	1,398.00
tblFireplaces	NumberGas	303.05	337.00
tblFireplaces	NumberWood	252.70	281.00
tblFireplaces	NumberWood	687.05	890.00
tblFireplaces	NumberWood	192.85	214.00
tblLandUse	LotAcreage	45.13	84.00
tblLandUse	LotAcreage	34.44	28.00
tblLandUse	LotAcreage	637.34	685.00
tblLandUse	LotAcreage	2.10	19.00
tblLandUse	LotAcreage	1.18	16.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.007
tblProjectCharacteristics	CO2IntensityFactor	641.35	53
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.001
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	22.75	0.95
tblVehicleTrips	ST_TR	2.46	6.22
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	16.74	0.95
tblVehicleTrips	SU_TR	1.05	6.22
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	1.89	0.95
tblVehicleTrips	WD_TR	1.29	0.38
tblVehicleTrips	WD_TR	11.03	6.22
tblVehicleTrips	WD_TR	1.62	0.90
tblVehicleTrips	WD_TR	44.32	21.03
tblWater	IndoorWaterUseRate	47,041,206.50	43,865,893.45
tblWater	IndoorWaterUseRate	127,897,352.29	197,727,481.29
tblWater	IndoorWaterUseRate	35,899,868.12	14,095,411.75
tblWater	IndoorWaterUseRate	1,488,483.36	2,087,534.59
tblWater	IndoorWaterUseRate	66,650,155.50	16,069,298.05
tblWater	IndoorWaterUseRate	1,888,482.96	2,478,947.33
tblWater	IndoorWaterUseRate	7,407,252.15	6,270,945.58

tblWater	OutdoorWaterUseRate	29,656,412.79	46,190,309.00
tblWater	OutdoorWaterUseRate	80,630,939.49	208,204,888.60
tblWater	OutdoorWaterUseRate	22,632,525.55	14,842,315.36
tblWater	OutdoorWaterUseRate	69,105,918.28	47,937,535.22
tblWater	OutdoorWaterUseRate	3,827,528.64	6,337,158.59
tblWater	OutdoorWaterUseRate	40,850,095.30	13,218,293.56
tblWater	OutdoorWaterUseRate	4,856,099.04	7,525,375.83
tblWater	OutdoorWaterUseRate	0.00	13,366,099.77
tblWater	OutdoorWaterUseRate	4,539,928.74	5,158,358.46

2.0 Emissions Summary

2.2 Overall Operational

Operational with Quantifable VMVSP Policies

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	176.4781	62.1418	291.3688	0.3912		6.2571	6.2571		6.2571	6.2571	0	75,890.55	75,890.55	1.9041	1.3825	76,350.14
Energy	1.2107	10.4972	5.5136	0.066		0.8365	0.8365		0.8365	0.8365		13,207.28	13,207.28	0.2531	0.2421	13,285.76
Mobile	33.01	81.6159	333.5328	1.4365	177.2771	0.763	178.0402	47.2947	0.7088	48.0035		########	144,488.31	2.8184		########
Total	**210.6988**	**154.2549**	**630.4152**	**1.8937**	**177.2771**	**7.8566**	**185.1338**	**47.2947**	**7.8024**	**55.0971**	**0**	########	**233,586.14**	**4.9756**	**1.6246**	########

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	6,446.92	6,446.92	6446.92	18,467,483	18,467,483
Single Family Housing	17,528.13	17,528.13	17528.13	50,210,068	50,210,068
Apartments Low Rise	1,492.58	1,492.58	1492.58	4,275,572	4,275,572
City Park	54.94	54.94	54.94	117,293	117,293
Elementary School	230.72	0.00	0.00	363,368	363,368
General Office Building	2,331.77	2,331.77	2331.77	5,572,349	5,572,349
Junior High School	700.64	0.00	0.00	1,125,119	1,125,119
Other Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	2,102.95	2,102.95	2102.95	3,238,617	3,238,617
Total	30,888.65	29,957.30	29,957.30	83,369,869	83,369,869

4.3 Trip Type Information

	Miles	Trip %	Trip Purpose %

Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	63	25	12
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Single Family Housing	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Apartments Low Rise	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
City Park	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Elementary School	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
General Office Building	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Junior High School	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Other Asphalt Surfaces	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Strip Mall	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24
Install Energy Efficient Appliances

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low	15.3307	0.1653	1.4128	0.6012	9.0200e-		0.1142	0.1142		0.1142	0.1142		1,803.6107	1,803.610	0.0346	0.0331	1,814.3287
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	9.96744	0.1075	0.9186	0.3909	5.8600e-		0.0743	0.0743		0.0743	0.0743		1,172.6397	1,172.639	0.0225	0.0215	1,179.6081
Elementary School	1.88664	0.0204	0.1850	0.1554	1.1100e-		0.0141	0.0141		0.0141	0.0141		221.9581	221.9581	4.2500e-	4.0700e-	223.2771
General Office	18.6701	0.2013	1.8304	1.5375	0.0110		0.1391	0.1391		0.1391	0.1391		2,196.4787	2,196.478	0.0421	0.0403	2,209.5312
Junior High School	3.3659	0.0363	0.3300	0.2772	1.9800e-		0.0251	0.0251		0.0251	0.0251		395.9881	395.9881	7.5900e-	7.2600e-	398.3413
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	61.2041	0.6600	5.6404	2.4002	0.0360		0.4560	0.4560		0.4560	0.4560		7,200.4770	7,200.477	0.1380	0.1320	7,243.2658
Strip Mall	1.83707	0.0198	0.1801	0.1513	1.0800e-		0.0137	0.0137		0.0137	0.0137		216.1257	216.1257	4.1400e-	3.9600e-	217.4100

Total		**1.2107**	**10.4972**	**5.5136**	**0.0660**		**0.8365**	**0.8365**		**0.8365**	**0.8365**		**13,207.277**	**13,207.27**	**0.2531**	**0.2421**	**13,285.762**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	45.2130					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	116.3802					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	6.9125	59.0707	25.1365	0.3771		4.7759	4.7759		4.7759	4.7759	0.0000	75,409.41	75,409.411	1.4454	1.3825	75,857.53
Landscaping	7.9724	3.0711	266.2323	0.0141		1.4812	1.4812		1.4812	1.4812		481.1392	481.1392	0.4587		492.6068
Total	**176.4781**	**62.1418**	**291.3688**	**0.3912**		**6.2571**	**6.2571**		**6.2571**	**6.2571**	**0.0000**	**75,890.55**	**75,890.550**	**1.9041**	**1.3825**	**76,350.13**

VMVSP Full Build - 2045 without VMVSP - El Dorado-Mountain County County, Annual

VMVSP Full Build - 2045 without VMVSP
El Dorado-Mountain County County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	375.00	1000sqft	8.61	375,000.00	0
Elementary School	614.00	Student	16.00	51,332.47	0
Junior High School	779.00	Student	19.00	91,580.55	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
City Park	58.00	Acre	58.00	2,526,480.00	0
Apartments Low Rise	551.00	Dwelling Unit	28.00	551,000.00	1576
Condo/Townhouse	722.00	Dwelling Unit	84.00	722,000.00	2065
Single Family Housing	1,963.00	Dwelling Unit	685.00	3,533,400.00	5614
Strip Mall	100.00	1000sqft	2.30	100,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2045
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	0	**CH4 Intensity**	0	**N2O Intensity**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E and eGrid emission factors adjusted for SB100 and RPS
Land Use - Land use assumptions from project description
Vehicle Trips - Trip rates from F&P
Woodstoves - Hearth assumptions provided by applicant
Water And Wastewater - Water assumptions from WSP water study
Energy Mitigation - Min 7% above 2016 code assumed for 2019 Title 24 standards

Table Name	Column Name	Default Value	New Value

tblFireplaces	NumberGas	303.05	337.00
tblFireplaces	NumberGas	397.10	441.00
tblFireplaces	NumberGas	1,079.65	1,398.00
tblFireplaces	NumberWood	192.85	214.00
tblFireplaces	NumberWood	252.70	281.00
tblFireplaces	NumberWood	687.05	890.00
tblLandUse	LotAcreage	1.18	16.00
tblLandUse	LotAcreage	2.10	19.00
tblLandUse	LotAcreage	34.44	28.00
tblLandUse	LotAcreage	45.13	84.00
tblLandUse	LotAcreage	637.34	685.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	641.35	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	7.16	6.44
tblVehicleTrips	ST_TR	22.75	1.85
tblVehicleTrips	ST_TR	5.67	9.70
tblVehicleTrips	ST_TR	2.46	9.56
tblVehicleTrips	ST_TR	9.91	9.70
tblVehicleTrips	ST_TR	42.04	42.70
tblVehicleTrips	SU_TR	6.07	6.44
tblVehicleTrips	SU_TR	16.74	1.85
tblVehicleTrips	SU_TR	4.84	9.70
tblVehicleTrips	SU_TR	1.05	9.56
tblVehicleTrips	SU_TR	8.62	9.70
tblVehicleTrips	SU_TR	20.43	42.70
tblVehicleTrips	WD_TR	6.59	6.44
tblVehicleTrips	WD_TR	1.89	1.85
tblVehicleTrips	WD_TR	5.81	9.70
tblVehicleTrips	WD_TR	11.03	9.56
tblVehicleTrips	WD_TR	9.52	9.70
tblVehicleTrips	WD_TR	44.32	42.70
tblWater	IndoorWaterUseRate	35,899,868.12	17,619,264.68
tblWater	IndoorWaterUseRate	47,041,206.50	54,832,366.81
tblWater	IndoorWaterUseRate	1,488,483.36	2,087,534.59
tblWater	IndoorWaterUseRate	66,650,155.50	16,069,298.05
tblWater	IndoorWaterUseRate	1,888,482.96	2,478,947.33
tblWater	IndoorWaterUseRate	127,897,352.29	247,159,351.62
tblWater	IndoorWaterUseRate	7,407,252.15	6,270,945.58
tblWater	OutdoorWaterUseRate	22,632,525.55	14,842,315.36
tblWater	OutdoorWaterUseRate	69,105,918.28	47,937,535.22
tblWater	OutdoorWaterUseRate	29,656,412.79	46,190,309.00
tblWater	OutdoorWaterUseRate	3,827,528.64	6,337,158.59

tblWater	OutdoorWaterUseRate	40,850,095.30	13,218,293.56
tblWater	OutdoorWaterUseRate	4,856,099.04	7,525,375.83
tblWater	OutdoorWaterUseRate	0.00	13,366,099.77
tblWater	OutdoorWaterUseRate	80,630,939.49	208,204,888.60
tblWater	OutdoorWaterUseRate	4,539,928.74	5,158,358.46

2.0 Emissions Summary

Operational Emissions with no VMVSP

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	278	5	324	1		42	42		42	42	3942	1753	5695	3	0	5869
Energy	0	2	1	0		0	0		0	0	0	2187	2187	0	0	2200
Mobile	4	16	57	0	38	0	38	10	0	10	0	26058	26058	0	0	26070
Waste						0	0		0	0	548	0	548	32	0	1359
Water						0	0		0	0	110	0	110	11	0	472
Total	**282**	**23**	**381**	**1**	**38**	**42**	**80**	**10**	**42**	**52**	**4600**	**29998**	**34598**	**47**	**1**	**35969**

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	3,548.44	3,548.44	3548.44	10,164,658	10,164,658
City Park	107.30	107.30	107.30	229,070	229,070
Condo/Townhouse	7,003.40	7,003.40	7003.40	20,061,538	20,061,538
Elementary School	792.06	0.00	0.00	1,247,460	1,247,460
General Office Building	3,585.00	3,585.00	3585.00	8,567,264	8,567,264
Junior High School	1,261.98	0.00	0.00	2,026,554	2,026,554
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	19,041.10	19,041.10	19041.10	54,544,042	54,544,042
Strip Mall	4,270.00	4,270.00	4270.00	6,575,941	6,575,941
Total	39,609.28	37,555.24	37,555.24	103,416,526	103,416,526

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	63	25	12
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.574767	0.032115	0.229243	0.114553	0.009169	0.003663	0.019090	0.009340	0.001694	0.000867	0.004357	0.000681	0.000462
City Park	0.574767	0.032115	0.229243	0.114553	0.009169	0.003663	0.019090	0.009340	0.001694	0.000867	0.004357	0.000681	0.000462
Condo/Townhouse	0.574767	0.032115	0.229243	0.114553	0.009169	0.003663	0.019090	0.009340	0.001694	0.000867	0.004357	0.000681	0.000462
Elementary School	0.574767	0.032115	0.229243	0.114553	0.009169	0.003663	0.019090	0.009340	0.001694	0.000867	0.004357	0.000681	0.000462
General Office Building	0.574767	0.032115	0.229243	0.114553	0.009169	0.003663	0.019090	0.009340	0.001694	0.000867	0.004357	0.000681	0.000462
Junior High School	0.574767	0.032115	0.229243	0.114553	0.009169	0.003663	0.019090	0.009340	0.001694	0.000867	0.004357	0.000681	0.000462
Other Asphalt Surfaces	0.574767	0.032115	0.229243	0.114553	0.009169	0.003663	0.019090	0.009340	0.001694	0.000867	0.004357	0.000681	0.000462
Single Family Housing	0.574767	0.032115	0.229243	0.114553	0.009169	0.003663	0.019090	0.009340	0.001694	0.000867	0.004357	0.000681	0.000462
Strip Mall	0.574767	0.032115	0.229243	0.114553	0.009169	0.003663	0.019090	0.009340	0.001694	0.000867	0.004357	0.000681	0.000462

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low	5.5957e+0	0.0302	0.2578	0.1097	1.6500e-		0.0209	0.0209		0.0209	0.0209	0.0000	298.6080	298.6080	5.7200e-	5.4700e-	300.3825
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	3.63811e+	0.0196	0.1676	0.0713	1.0700e-		0.0136	0.0136		0.0136	0.0136	0.0000	194.1437	194.1437	3.7200e-	3.5600e-	195.2974
Elementary School	688625	3.7100e-	0.0338	0.0284	2.0000e-		2.5700e-	2.5700e-		2.5700e-	2.5700e-	0.0000	36.7477	36.7477	7.0000e-	6.7000e-	36.9660
General Office	6.81457e+	0.0368	0.3341	0.2806	2.0000e-		0.0254	0.0254		0.0254	0.0254	0.0000	363.6517	363.6517	6.9700e-	6.6700e-	365.8127
Junior High School	1.22855e+	6.6200e-	0.0602	0.0506	3.6000e-		4.5800e-	4.5800e-		4.5800e-	4.5800e-	0.0000	65.5603	65.5603	1.2600e-	1.2000e-	65.9499
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	2.23395e+	0.1205	1.0294	0.4380	6.5700e-		0.0832	0.0832		0.0832	0.0832	0.0000	1,192.1197	1,192.119	0.0229	0.0219	1,199.2039
Strip Mall	670530	3.6200e-	0.0329	0.0276	2.0000e-		2.5000e-	2.5000e-		2.5000e-	2.5000e-	0.0000	35.7820	35.7820	6.9000e-	6.6000e-	35.9947
Total		**0.2210**	**1.9158**	**1.0063**	**0.0121**		**0.1527**	**0.1527**		**0.1527**	**0.1527**	**0.0000**	**2,186.6130**	**2,186.613**	**0.0419**	**0.0401**	**2,199.6069**

5.3 Energy by Land Use - Electricity

	Electricity	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low	2.59231e+	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	4.11539e+	0.0000	0.0000	0.0000	0.0000
Elementary School	342726	0.0000	0.0000	0.0000	0.0000
General Office	4.05221e+	0.0000	0.0000	0.0000	0.0000
Junior High School	611447	0.0000	0.0000	0.0000	0.0000
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000
Single Family	1.6908e+0	0.0000	0.0000	0.0000	0.0000
Strip Mall	1.31693e+	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural	8.2514					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer	21.2394					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	247.5608	4.7398	299.8205	0.5335		41.8847	41.8847		41.8847	41.8847	3,941.792	1,713.926	5,655.7181	3.0907	0.3215	5,828.795
Landscaping	0.7171	0.2763	23.9398	1.2700e-		0.1333	0.1333		0.1333	0.1333	0.0000	39.2834	39.2834	0.0375	0.0000	40.2196
Total	**277.7687**	**5.0161**	**323.7603**	**0.5348**		**42.0180**	**42.0180**		**42.0180**	**42.0180**	**3,941.792**	**1,753.209**	**5,695.0015**	**3.1281**	**0.3215**	**5,869.015**

7.0 Water Detail

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low	17.6193 /	5.5898	0.5741	0.0136	23.9827
City Park	0 / 47.9375	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	54.8324 /	17.3958	1.7867	0.0422	74.6357
Elementary School	2.08753 /	0.6623	0.0680	1.6100e-	2.8415
General Office	16.0693 /	5.0981	0.5236	0.0124	21.8729
Junior High School	2.47895 /	0.7865	0.0808	1.9100e-	3.3743
Other Asphalt	0 / 13.3661	0.0000	0.0000	0.0000	0.0000
Single Family	247.159 /	78.4123	8.0537	0.1902	336.4237
Strip Mall	6.27095 /	1.9895	0.2043	4.8200e-	8.5358
Total		**109.9341**	**11.2913**	**0.2666**	**471.6665**

8.0 Waste Detail

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low	253.46	51.4501	3.0406	0.0000	127.4654

City Park	4.99	1.0129	0.0599	0.0000	2.5095
Condo/Townhouse	332.12	67.4174	3.9843	0.0000	167.0237
Elementary School	112.05	22.7451	1.3442	0.0000	56.3501
General Office	348.75	70.7931	4.1838	0.0000	175.3869
Junior High School	142.17	28.8592	1.7055	0.0000	71.4975
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000
Single Family	1403.5	284.8978	16.8370	0.0000	705.8223
Strip Mall	105	21.3141	1.2596	0.0000	52.8047
Total		**548.4897**	**32.4148**	**0.0000**	**1,358.860**

VMVSP Full Build - 2045 with VMVSP - El Dorado-Mountain County County, Annual

VMVSP Full Build - 2045 with VMVSP
El Dorado-Mountain County County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	375.00	1000sqft	8.61	375,000.00	0
Elementary School	614.00	Student	16.00	51,332.47	0
Junior High School	779.00	Student	19.00	91,580.55	0
Other Asphalt Surfaces	11.00	Acre	11.00	479,160.00	0
City Park	58.00	Acre	58.00	2,526,480.00	0
Apartments Low Rise	551.00	Dwelling Unit	28.00	551,000.00	1576
Condo/Townhouse	722.00	Dwelling Unit	84.00	722,000.00	2065
Single Family Housing	1,963.00	Dwelling Unit	685.00	3,533,400.00	5614
Strip Mall	100.00	1000sqft	2.30	100,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2045
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	0	**CH4 Intensity**	0	**N2O Intensity**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E and eGrid emission factors adjusted for SB100 and RPS
Land Use - Land use assumptions from project description
Vehicle Trips - Trip rates from F&P (account for internalization and mixed use design)
Woodstoves - Hearth assumptions provided by applicant
Water And Wastewater - Water assumptions from WSP water study (includes 20% reduction in indoor residential water use per VMVSP Policy 9.36
Area Mitigation - Only natural gas hearth (VMVSP 9.50 and 9.51)
Energy Mitigation - Energy Star appliances per VMVSP 9.16. Conservatively only included a 7% exceedance over 2016 Title 24 (model default) per min
Water Mitigation - Recycled water per WSA study (VMVSP Policy 9.40), water efficient irrigation (VMVSP Policy 9.42), turf (VMVSP Policy 9.45)

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	303.05	337.00
tblFireplaces	NumberGas	397.10	441.00
tblFireplaces	NumberGas	1,079.65	1,398.00
tblFireplaces	NumberWood	192.85	214.00
tblFireplaces	NumberWood	252.70	281.00
tblFireplaces	NumberWood	687.05	890.00
tblLandUse	LotAcreage	1.18	16.00
tblLandUse	LotAcreage	2.10	19.00
tblLandUse	LotAcreage	34.44	28.00
tblLandUse	LotAcreage	45.13	84.00
tblLandUse	LotAcreage	637.34	685.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	641.35	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	7.16	2.71
tblVehicleTrips	ST_TR	22.75	0.95
tblVehicleTrips	ST_TR	5.67	8.93
tblVehicleTrips	ST_TR	2.46	6.22
tblVehicleTrips	ST_TR	9.91	8.93
tblVehicleTrips	ST_TR	42.04	21.03
tblVehicleTrips	SU_TR	6.07	2.71
tblVehicleTrips	SU_TR	16.74	0.95
tblVehicleTrips	SU_TR	4.84	8.93
tblVehicleTrips	SU_TR	1.05	6.22
tblVehicleTrips	SU_TR	8.62	8.93
tblVehicleTrips	SU_TR	20.43	21.03
tblVehicleTrips	WD_TR	6.59	2.71
tblVehicleTrips	WD_TR	1.89	0.95
tblVehicleTrips	WD_TR	5.81	8.93
tblVehicleTrips	WD_TR	1.29	0.38
tblVehicleTrips	WD_TR	11.03	6.22
tblVehicleTrips	WD_TR	1.62	0.90
tblVehicleTrips	WD_TR	9.52	8.93
tblVehicleTrips	WD_TR	44.32	21.03
tblWater	IndoorWaterUseRate	35,899,868.12	14,095,411.75
tblWater	IndoorWaterUseRate	47,041,206.50	43,865,893.45
tblWater	IndoorWaterUseRate	1,488,483.36	2,087,534.59
tblWater	IndoorWaterUseRate	66,650,155.50	16,069,298.05
tblWater	IndoorWaterUseRate	1,888,482.96	2,478,947.33
tblWater	IndoorWaterUseRate	127,897,352.29	197,727,481.29
tblWater	IndoorWaterUseRate	7,407,252.15	6,270,945.58

tblWater	OutdoorWaterUseRate	22,632,525.55	14,842,315.36
tblWater	OutdoorWaterUseRate	69,105,918.28	47,937,535.22
tblWater	OutdoorWaterUseRate	29,656,412.79	46,190,309.00
tblWater	OutdoorWaterUseRate	3,827,528.64	6,337,158.59
tblWater	OutdoorWaterUseRate	40,850,095.30	13,218,293.56
tblWater	OutdoorWaterUseRate	4,856,099.04	7,525,375.83
tblWater	OutdoorWaterUseRate	0.00	13,366,099.77
tblWater	OutdoorWaterUseRate	80,630,939.49	208,204,888.60
tblWater	OutdoorWaterUseRate	4,539,928.74	5,158,358.46

2.0 Emissions Summary

Operational with Quantifable VMVSP

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	30	3	25	0		0	0		0	0	0	2,844	2,844	0	0	2,862
Energy	0	2	1	0		0	0		0	0	0	2,187	2,187	0	0	2,200
Mobile	4	13	45	0	31	0	31	8	0	8	0	20,988	20,988	0	0	20,997
Waste						0	0		0	0	548	0	548	32	0	1,359
Water						0	0		0	0	90	0	90	9	0	385
Total	**34**	**17**	**71**	**0**	**31**	**1**	**31**	**8**	**1**	**9**	**638**	**26,019**	**26,657**	**42**	**0**	**27,802**

4.0 Operational Detail - Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	6,446.92	6,446.92	6446.92	18,467,483	18,467,483
Single Family Housing	17,528.13	17,528.13	17528.13	50,210,068	50,210,068
Apartments Low Rise	1,492.58	1,492.58	1492.58	4,275,572	4,275,572
City Park	54.94	54.94	54.94	117,293	117,293
Elementary School	230.72	0.00	0.00	363,368	363,368
General Office Building	2,331.77	2,331.77	2331.77	5,572,349	5,572,349
Junior High School	700.64	0.00	0.00	1,125,119	1,125,119
Other Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	2,102.95	2,102.95	2102.95	3,238,617	3,238,617
Total	30,888.65	29,957.30	29,957.30	83,369,869	83,369,869

4.3 Trip Type Information

	Miles	Trip %	Trip Purpose %

Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Single Family Housing	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
Apartments Low Rise	10.80	7.30	7.50	42.60	21.00	36.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	63	25	12
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Single Family Housing	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Apartments Low Rise	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
City Park	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Elementary School	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
General Office Building	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Junior High School	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Other Asphalt Surfaces	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577
Strip Mall	0.571778	0.032543	0.227016	0.116290	0.012601	0.003811	0.018332	0.009298	0.001658	0.000887	0.004468	0.000740	0.000577

5.0 Energy Detail

Historical Energy Use: N
Exceed Title 24
Install Energy Efficient Appliances

5.2 Energy by Land Use - NaturalGas

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low	5.5957e+0	0.0302	0.2578	0.1097	1.6500e-		0.0209	0.0209		0.0209	0.0209	0.0000	298.6080	298.6080	5.7200e-	5.4700e-	300.3825
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	3.63811e+	0.0196	0.1676	0.0713	1.0700e-		0.0136	0.0136		0.0136	0.0136	0.0000	194.1437	194.1437	3.7200e-	3.5600e-	195.2974
Elementary School	688625	3.7100e-	0.0338	0.0284	2.0000e-		2.5700e-	2.5700e-		2.5700e-	2.5700e-	0.0000	36.7477	36.7477	7.0000e-	6.7000e-	36.9660
General Office	6.81457e+	0.0368	0.3341	0.2806	2.0000e-		0.0254	0.0254		0.0254	0.0254	0.0000	363.6517	363.6517	6.9700e-	6.6700e-	365.8127
Junior High School	1.22855e+	6.6200e-	0.0602	0.0506	3.6000e-		4.5800e-	4.5800e-		4.5800e-	4.5800e-	0.0000	65.5603	65.5603	1.2600e-	1.2000e-	65.9499
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family	2.23395e+	0.1205	1.0294	0.4380	6.5700e-		0.0832	0.0832		0.0832	0.0832	0.0000	1,192.1197	1,192.119	0.0229	0.0219	1,199.2039

Strip Mall	670530	3.6200e-	0.0329	0.0276	2.0000e-		2.5000e-	2.5000e-		2.5000e-	2.5000e-	0.0000	35.7820	35.7820	6.9000e-	6.6000e-	35.9947
Total		**0.2210**	**1.9158**	**1.0063**	**0.0121**		**0.1527**	**0.1527**		**0.1527**	**0.1527**	**0.0000**	**2,186.6130**	**2,186.613**	**0.0419**	**0.0401**	**2,199.6069**

5.3 Energy by Land Use - Electricity

	Electricity	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low	2.59231e+	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	4.11539e+	0.0000	0.0000	0.0000	0.0000
Elementary School	342726	0.0000	0.0000	0.0000	0.0000
General Office	4.05221e+	0.0000	0.0000	0.0000	0.0000
Junior High School	611447	0.0000	0.0000	0.0000	0.0000
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000
Single Family	1.6578e+0	0.0000	0.0000	0.0000	0.0000
Strip Mall	1.31693e+	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural	8.2514					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer	21.2394					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2834	2.4219	1.0306	0.0155		0.1958	0.1958		0.1958	0.1958	0.0000	2,804.821	2,804.8210	0.0538	0.0514	2,821.488
Landscaping	0.7171	0.2763	23.9398	1.2700e-		0.1333	0.1333		0.1333	0.1333	0.0000	39.2834	39.2834	0.0375	0.0000	40.2196
Total	**30.4913**	**2.6982**	**24.9704**	**0.0167**		**0.3291**	**0.3291**		**0.3291**	**0.3291**	**0.0000**	**2,844.104**	**2,844.1044**	**0.0912**	**0.0514**	**2,861.708**

7.0 Water Detail

Use Reclaimed Water
Turf Reduction
Use Water Efficient Irrigation System

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low	14.0954 /	4.4718	0.4593	0.0109	19.1861
City Park	0 / 34.3902	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	43.8659 /	13.9166	1.4294	0.0338	59.7086
Elementary School	2.08753 /	0.6623	0.0680	1.6100e-	2.8415
General Office	16.0693 /	5.0981	0.5236	0.0124	21.8729

Junior High School	2.47895 /	0.7865	0.0808	1.9100e-	3.3743
Other Asphalt	0 / 9.58879	0.0000	0.0000	0.0000	0.0000
Single Family	197.727 /	62.7298	6.4430	0.1521	269.1390
Strip Mall	6.27095 /	1.9895	0.2043	4.8200e-	8.5358
Total		**89.6545**	**9.2084**	**0.2174**	**384.6581**

8.0 Waste Detail

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low	253.46	51.4501	3.0406	0.0000	127.4654
City Park	4.99	1.0129	0.0599	0.0000	2.5095
Condo/Townhouse	332.12	67.4174	3.9843	0.0000	167.0237
Elementary School	112.05	22.7451	1.3442	0.0000	56.3501
General Office	348.75	70.7931	4.1838	0.0000	175.3869
Junior High School	142.17	28.8592	1.7055	0.0000	71.4975
Other Asphalt	0	0.0000	0.0000	0.0000	0.0000
Single Family	1403.5	284.8978	16.8370	0.0000	705.8223
Strip Mall	105	21.3141	1.2596	0.0000	52.8047
Total		**548.4897**	**32.4148**	**0.0000**	**1,358.860**

CalRoads (CO Hotspot)

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Bass Lake Road/US 50 Cumulative Plus Pro
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 15. DEGREES TEMP= 3.9 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. EBA	*	-1000	0	0	0	* AG	0	1.1	0.0	10.0
B. EBD	*	0	0	1000	0	* AG	0	1.1	0.0	10.0
C. WBA	*	1000	2	0	2	* AG	520	1.1	0.0	10.0
D. WBD	*	0	2	-1000	2	* AG	1170	1.1	0.0	10.0
E. SBA	*	-2	1000	-2	0	* AG	1090	1.1	0.0	10.0
F. SBD	*	-2	0	-2	-1000	* AG	760	1.1	0.0	10.0
G. NBA	*	2	-1000	2	0	* AG	1350	1.1	0.0	10.0
H. NBD	*	2	0	2	1000	* AG	1030	1.1	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R_001	*	-7	7	1.8
2. R_002	*	7	7	1.8
3. R_003	*	-8	-6	1.8
4. R_004	*	8	-5	1.8

JOB: Bass Lake Road/US 50 Cumulative Plus Pro
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	PRED BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	172.	0.4	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0
2. R_002	188.	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0
3. R_003	8.	0.4	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.1
4. R_004	352.	0.3	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Bass Lake Road/US 50 Cumulative
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 15. DEGREES TEMP= 3.9 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. EBA	*	-1000	0	0	0	* AG	0	1.1	0.0	10.0
B. EBD	*	0	0	1000	0	* AG	0	1.1	0.0	10.0
C. WBA	*	1000	2	0	2	* AG	410	1.1	0.0	10.0
D. WBD	*	0	2	-1000	2	* AG	850	1.1	0.0	10.0
E. SBA	*	-2	1000	-2	0	* AG	1020	1.1	0.0	10.0
F. SBD	*	-2	0	-2	-1000	* AG	470	1.1	0.0	10.0
G. NBA	*	2	-1000	2	0	* AG	1050	1.1	0.0	10.0
H. NBD	*	2	0	2	1000	* AG	1160	1.1	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R_001	*	-7	7	1.8
2. R_002	*	7	7	1.8
3. R_003	*	-8	-6	1.8
4. R_004	*	8	-5	1.8

JOB: Bass Lake Road/US 50 Cumulative
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	PRED BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	8.	0.3	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1
2. R_002	352.	0.3	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2
3. R_003	8.	0.3	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.1
4. R_004	352.	0.3	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Bass Lake Road/US 50 Existing
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 15. DEGREES TEMP= 3.9 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	* LINK COORDINATES (M) * X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. EBA	* -1000	0	0	0 *	AG	0	7.1	0.0	10.0
B. EBD	* 0	0	1000	0 *	AG	100	7.1	0.0	10.0
C. WBA	* 1000	2	0	2 *	AG	132	7.1	0.0	10.0
D. WBD	* 0	2	-1000	2 *	AG	13	7.1	0.0	10.0
E. SBA	* -2	1000	-2	0 *	AG	345	7.1	0.0	10.0
F. SBD	* -2	0	-2	-1000 *	AG	252	7.1	0.0	10.0
G. NBA	* 2	-1000	2	0 *	AG	610	7.1	0.0	10.0
H. NBD	* 2	0	2	1000 *	AG	722	7.1	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	* COORDINATES (M) * X	Y	Z
1. R_001	* -7	7	1.8
2. R_002	* 7	7	1.8
3. R_003	* -8	-6	1.8
4. R_004	* 8	-5	1.8

JOB: Bass Lake Road/US 50 Existing
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	PRED BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	8.	1.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.6
2. R_002	354.	1.2	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.9
3. R_003	8.	1.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.5
4. R_004	352.	1.2	0.0	0.0	0.1	0.0	0.3	0.0	0.0	0.7

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Bass Lake Road/US 50 Existing plus Proje
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 15. DEGREES TEMP= 3.9 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. EBA	*	-1000	0	0	0	* AG	0	7.1	0.0	10.0
B. EBD	*	0	0	1000	0	* AG	0	7.1	0.0	10.0
C. WBA	*	1000	2	0	2	* AG	461	7.1	0.0	10.0
D. WBD	*	0	2	-1000	2	* AG	954	7.1	0.0	10.0
E. SBA	*	-2	1000	-2	0	* AG	528	7.1	0.0	10.0
F. SBD	*	-2	0	-2	-1000	* AG	619	7.1	0.0	10.0
G. NBA	*	2	-1000	2	0	* AG	1527	7.1	0.0	10.0
H. NBD	*	2	0	2	1000	* AG	943	7.1	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R_001	*	-7	7	1.8
2. R_002	*	7	7	1.8
3. R_003	*	-8	-6	1.8
4. R_004	*	8	-5	1.8

JOB: Bass Lake Road/US 50 Existing plus Proje
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	PRED BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	172.	2.2	0.0	0.0	0.0	0.5	0.1	0.6	1.0	0.0
2. R_002	186.	2.3	0.0	0.0	0.2	0.0	0.0	0.5	1.4	0.2
3. R_003	171.	1.7	0.0	0.0	0.0	0.0	0.0	0.7	1.0	0.0
4. R_004	188.	2.1	0.0	0.0	0.0	0.0	0.0	0.5	1.6	0.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Cambridge/US 50 Cumulative Plus Project
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 15. DEGREES TEMP= 3.9 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. EBA	*	-1000	-4	0	-4	* AG	330	1.1	0.0	13.3
B. EBD	*	0	2	1000	2	* AG	560	1.1	0.0	10.0
C. WBA	*	1000	4	0	4	* AG	1340	1.1	0.0	13.3
D. WBD	*	0	2	-1000	2	* AG	440	1.1	0.0	10.0
E. SBA	*	-4	1000	-4	0	* AG	1370	1.1	0.0	13.3
F. SBD	*	-2	0	-2	-1000	* AG	1650	1.1	0.0	10.0
G. NBA	*	5	-1000	5	0	* AG	1050	1.1	0.0	17.0
H. NBD	*	2	0	2	1000	* AG	1440	1.1	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R_001	*	-10	7	1.8
2. R_002	*	7	11	1.8
3. R_003	*	-7	-11	1.8
4. R_004	*	14	-3	1.8

JOB: Cambridge/US 50 Cumulative Plus Project
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	PRED BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	94.	0.5	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.1
2. R_002	186.	0.5	0.0	0.0	0.1	0.0	0.0	0.2	0.1	0.1
3. R_003	7.	0.5	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.1
4. R_004	349.	0.4	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Cambridge/US 50 Cumulative
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 15. DEGREES TEMP= 3.9 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. EBA	*	-1000	-4	0	-4	* AG	330	1.1	0.0	13.3
B. EBD	*	0	2	1000	2	* AG	480	1.1	0.0	10.0
C. WBA	*	1000	4	0	4	* AG	1030	1.1	0.0	13.3
D. WBD	*	0	2	-1000	2	* AG	440	1.1	0.0	10.0
E. SBA	*	-4	1000	-4	0	* AG	1200	1.1	0.0	13.3
F. SBD	*	-2	0	-2	-1000	* AG	1200	1.1	0.0	10.0
G. NBA	*	5	-1000	5	0	* AG	860	1.1	0.0	17.0
H. NBD	*	2	0	2	1000	* AG	1300	1.1	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R_001	*	-10	7	1.8
2. R_002	*	7	11	1.8
3. R_003	*	-7	-11	1.8
4. R_004	*	14	-3	1.8

JOB: Cambridge/US 50 Cumulative
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	PRED BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	94.	0.4	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.1
2. R_002	186.	0.4	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1
3. R_003	7.	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1
4. R_004	350.	0.3	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
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JOB: Cambridge/US 50 Existing
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 15. DEGREES TEMP= 3.9 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. EBA	*	-1000	-4	0	-4	* AG	311	7.1	0.0	13.3
B. EBD	*	0	2	1000	2	* AG	238	7.1	0.0	10.0
C. WBA	*	1000	4	0	4	* AG	448	7.1	0.0	13.3
D. WBD	*	0	2	-1000	2	* AG	420	7.1	0.0	10.0
E. SBA	*	-4	1000	-4	0	* AG	361	7.1	0.0	13.3
F. SBD	*	-2	0	-2	-1000	* AG	378	7.1	0.0	10.0
G. NBA	*	5	-1000	5	0	* AG	548	7.1	0.0	17.0
H. NBD	*	2	0	2	1000	* AG	632	7.1	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R_001	*	-10	7	1.8
2. R_002	*	7	11	1.8
3. R_003	*	-7	-11	1.8
4. R_004	*	14	-3	1.8

JOB: Cambridge/US 50 Existing
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	PRED BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	94.	1.2	0.0	0.3	0.5	0.1	0.2	0.0	0.0	0.2
2. R_002	184.	1.3	0.0	0.1	0.2	0.0	0.0	0.3	0.5	0.2
3. R_003	6.	1.2	0.1	0.0	0.0	0.1	0.4	0.1	0.0	0.5
4. R_004	274.	1.3	0.3	0.1	0.1	0.4	0.0	0.1	0.2	0.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
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JOB: Cambridge/US 50 Existing Plus Project
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 15. DEGREES TEMP= 3.9 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. EBA	*	-1000	-4	0	-4	* AG	311	7.1	0.0	13.3
B. EBD	*	0	2	1000	2	* AG	339	7.1	0.0	10.0
C. WBA	*	1000	4	0	4	* AG	566	7.1	0.0	13.3
D. WBD	*	0	2	-1000	2	* AG	420	7.1	0.0	10.0
E. SBA	*	-4	1000	-4	0	* AG	428	7.1	0.0	13.3
F. SBD	*	-2	0	-2	-1000	* AG	563	7.1	0.0	10.0
G. NBA	*	5	-1000	5	0	* AG	721	7.1	0.0	17.0
H. NBD	*	2	0	2	1000	* AG	704	7.1	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R_001	*	-10	7	1.8
2. R_002	*	7	11	1.8
3. R_003	*	-7	-11	1.8
4. R_004	*	14	-3	1.8

JOB: Cambridge/US 50 Existing Plus Project
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	PRED BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	94.	1.5	0.0	0.4	0.6	0.1	0.2	0.0	0.0	0.2
2. R_002	184.	1.7	0.0	0.1	0.3	0.0	0.0	0.4	0.7	0.2
3. R_003	7.	1.4	0.1	0.0	0.0	0.1	0.4	0.1	0.0	0.5
4. R_004	274.	1.4	0.3	0.1	0.1	0.4	0.0	0.1	0.3	0.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
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JOB: Crazy Horse/Filying C Cumulative Plus Pr
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 15. DEGREES TEMP= 3.9 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. EBA	*	-1000	-2	0	-2	* AG	90	1.1	0.0	10.0
B. EBD	*	0	-2	1000	-2	* AG	220	1.1	0.0	10.0
C. WBA	*	1000	2	0	2	* AG	180	1.1	0.0	10.0
D. WBD	*	0	2	-1000	2	* AG	130	1.1	0.0	10.0
E. SBA	*	-2	1000	-2	0	* AG	1060	1.1	0.0	10.0
F. SBD	*	-2	0	-2	-1000	* AG	790	1.1	0.0	10.0
G. NBA	*	2	-1000	2	0	* AG	670	1.1	0.0	10.0
H. NBD	*	2	0	2	1000	* AG	860	1.1	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R_001	*	-7	7	1.8
2. R_002	*	7	7	1.8
3. R_003	*	-7	-7	1.8
4. R_004	*	7	-7	1.8

JOB: Crazy Horse/Filying C Cumulative Plus Pr
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	PRED BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	8.	0.3	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1
2. R_002	352.	0.3	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2
3. R_003	8.	0.3	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1
4. R_004	352.	0.3	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
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JOB: Crazy Horse/Filying C Cumulative
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 15. DEGREES TEMP= 3.9 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. EBA	*	-1000	-2	0	-2	* AG	90	1.1	0.0	10.0
B. EBD	*	0	-2	1000	-2	* AG	210	1.1	0.0	10.0
C. WBA	*	1000	2	0	2	* AG	80	1.1	0.0	10.0
D. WBD	*	0	2	-1000	2	* AG	140	1.1	0.0	10.0
E. SBA	*	-2	1000	-2	0	* AG	540	1.1	0.0	10.0
F. SBD	*	-2	0	-2	-1000	* AG	330	1.1	0.0	10.0
G. NBA	*	2	-1000	2	0	* AG	340	1.1	0.0	10.0
H. NBD	*	2	0	2	1000	* AG	370	1.1	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R_001	*	-7	7	1.8
2. R_002	*	7	7	1.8
3. R_003	*	-7	-7	1.8
4. R_004	*	7	-7	1.8

JOB: Crazy Horse/Filying C Cumulative
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	PRED BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	8.	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
2. R_002	352.	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
3. R_003	6.	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
4. R_004	352.	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
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JOB: Crazy Horse/Filying C Existing
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 15. DEGREES TEMP= 3.9 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. EBA	*	-1000	-2	0	-2	* AG	58	7.1	0.0	10.0
B. EBD	*	0	-2	1000	-2	* AG	57	7.1	0.0	10.0
C. WBA	*	1000	2	0	2	* AG	57	7.1	0.0	10.0
D. WBD	*	0	2	-1000	2	* AG	100	7.1	0.0	10.0
E. SBA	*	-2	1000	-2	0	* AG	173	7.1	0.0	10.0
F. SBD	*	-2	0	-2	-1000	* AG	19	7.1	0.0	10.0
G. NBA	*	2	-1000	2	0	* AG	26	7.1	0.0	10.0
H. NBD	*	2	0	2	1000	* AG	138	7.1	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R_001	*	-7	7	1.8
2. R_002	*	7	7	1.8
3. R_003	*	-7	-7	1.8
4. R_004	*	7	-7	1.8

JOB: Crazy Horse/Filying C Existing
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	PRED BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	6.	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1
2. R_002	354.	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2
3. R_003	5.	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1
4. R_004	355.	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
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JOB: Crazy Horse/Filying C Existing Plus Proj
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 15. DEGREES TEMP= 3.9 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. EBA	*	-1000	-2	0	-2	* AG	60	7.1	0.0	10.0
B. EBD	*	0	-2	1000	-2	* AG	65	7.1	0.0	10.0
C. WBA	*	1000	2	0	2	* AG	66	7.1	0.0	10.0
D. WBD	*	0	2	-1000	2	* AG	102	7.1	0.0	10.0
E. SBA	*	-2	1000	-2	0	* AG	563	7.1	0.0	10.0
F. SBD	*	-2	0	-2	-1000	* AG	378	7.1	0.0	10.0
G. NBA	*	2	-1000	2	0	* AG	264	7.1	0.0	10.0
H. NBD	*	2	0	2	1000	* AG	381	7.1	0.0	10.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R_001	*	-7	7	1.8
2. R_002	*	7	7	1.8
3. R_003	*	-7	-7	1.8
4. R_004	*	7	-7	1.8

JOB: Crazy Horse/Filying C Existing Plus Proj
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	PRED BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	8.	1.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.3
2. R_002	352.	1.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.5
3. R_003	6.	1.1	0.0	0.0	0.0	0.0	0.6	0.1	0.0	0.3
4. R_004	352.	1.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.4

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Town Center/Latrobe Cumulative Plus Proj
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 15. DEGREES TEMP= 3.9 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. EBA	*	-1000	-7	0	-7	* AG	310	1.1	0.0	20.6
B. EBD	*	0	-4	1000	-4	* AG	580	1.1	0.0	13.3
C. WBA	*	1000	5	0	5	* AG	720	1.1	0.0	17.0
D. WBD	*	0	5	-1000	5	* AG	30	1.1	0.0	17.0
E. SBA	*	-11	1000	-11	0	* AG	2070	1.1	0.0	27.9
F. SBD	*	-5	0	-5	-1000	* AG	1700	1.1	0.0	17.0
G. NBA	*	11	-1000	11	0	* AG	1830	1.1	0.0	27.9
H. NBD	*	5	0	5	1000	* AG	2620	1.1	0.0	17.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R_001	*	-26	14	1.8
2. R_002	*	14	14	1.8
3. R_003	*	-14	-18	1.8
4. R_004	*	25	-11	1.8

JOB: Town Center/Latrobe Cumulative Plus Proj
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	PRED BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	10.	0.3	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1
2. R_002	351.	0.5	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3
3. R_003	7.	0.4	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.2
4. R_004	348.	0.4	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Town Center/Latrobe Cumulative
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 15. DEGREES TEMP= 3.9 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	* LINK COORDINATES (M) * X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. EBA	* -1000	-7	0	-7	* AG	310	1.1	0.0	20.6
B. EBD	* 0	-4	1000	-4	* AG	580	1.1	0.0	13.3
C. WBA	* 1000	5	0	5	* AG	710	1.1	0.0	17.0
D. WBD	* 0	5	-1000	5	* AG	30	1.1	0.0	17.0
E. SBA	* -11	1000	-11	0	* AG	2080	1.1	0.0	27.9
F. SBD	* -5	0	-5	-1000	* AG	1710	1.1	0.0	17.0
G. NBA	* 11	-1000	11	0	* AG	1780	1.1	0.0	27.9
H. NBD	* 5	0	5	1000	* AG	2560	1.1	0.0	17.0

III. RECEPTOR LOCATIONS

RECEPTOR	* COORDINATES (M) * X	Y	Z
1. R_001	* -26	14	1.8
2. R_002	* 14	14	1.8
3. R_003	* -14	-18	1.8
4. R_004	* 25	-11	1.8

JOB: Town Center/Latrobe Cumulative
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	PRED BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	10.	0.3	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1
2. R_002	351.	0.5	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3
3. R_003	7.	0.4	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.2
4. R_004	348.	0.4	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Town Center/Latrobe Existing
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 15. DEGREES TEMP= 3.9 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	* LINK COORDINATES (M) * X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. EBA	* -1000	-7	0	-7	* AG	413	7.1	0.0	20.6
B. EBD	* 0	-4	1000	-4	* AG	584	7.1	0.0	13.3
C. WBA	* 1000	5	0	5	* AG	639	7.1	0.0	17.0
D. WBD	* 0	5	-1000	5	* AG	82	7.1	0.0	17.0
E. SBA	* -11	1000	-11	0	* AG	1391	7.1	0.0	27.9
F. SBD	* -5	0	-5	-1000	* AG	987	7.1	0.0	17.0
G. NBA	* 11	-1000	11	0	* AG	1406	7.1	0.0	27.9
H. NBD	* 5	0	5	1000	* AG	2196	7.1	0.0	17.0

III. RECEPTOR LOCATIONS

RECEPTOR	* COORDINATES (M) * X	Y	Z
1. R_001	* -26	14	1.8
2. R_002	* 14	14	1.8
3. R_003	* -14	-18	1.8
4. R_004	* 25	-11	1.8

JOB: Town Center/Latrobe Existing
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	PRED BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	98.	1.7	0.0	0.3	0.4	0.0	0.5	0.0	0.0	0.4
2. R_002	351.	2.5	0.0	0.0	0.0	0.0	0.6	0.0	0.0	1.9
3. R_003	7.	2.2	0.2	0.0	0.0	0.0	0.9	0.2	0.0	0.9
4. R_004	348.	2.0	0.0	0.3	0.2	0.0	0.5	0.0	0.1	1.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Town Center/Latrobe Existing Plus Projec
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 0.5 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 7 (G) VS= 0.0 CM/S
MIXH= 1000. M AMB= 0.0 PPM
SIGTH= 15. DEGREES TEMP= 3.9 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. EBA	*	-1000	-7	0	-7	* AG	449	7.1	0.0	20.6
B. EBD	*	0	-4	1000	-4	* AG	619	7.1	0.0	13.3
C. WBA	*	1000	5	0	5	* AG	705	7.1	0.0	17.0
D. WBD	*	0	5	-1000	5	* AG	31	7.1	0.0	17.0
E. SBA	*	-11	1000	-11	0	* AG	1506	7.1	0.0	27.9
F. SBD	*	-5	0	-5	-1000	* AG	1118	7.1	0.0	17.0
G. NBA	*	11	-1000	11	0	* AG	1519	7.1	0.0	27.9
H. NBD	*	5	0	5	1000	* AG	2411	7.1	0.0	17.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. R_001	*	-26	14	1.8
2. R_002	*	14	14	1.8
3. R_003	*	-14	-18	1.8
4. R_004	*	25	-11	1.8

JOB: Town Center/Latrobe Existing Plus Projec
RUN: CALINE4 RUN (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	PRED BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. R_001	98.	1.8	0.0	0.3	0.5	0.0	0.5	0.0	0.0	0.4
2. R_002	351.	2.7	0.0	0.0	0.0	0.0	0.6	0.0	0.0	2.1
3. R_003	7.	2.4	0.2	0.0	0.0	0.0	0.9	0.3	0.0	1.0
4. R_004	348.	2.1	0.0	0.3	0.2	0.0	0.5	0.0	0.1	1.0

Ascent Technical Report

Air Quality and Greenhouse Gas Modeling Technical Report

for the

Village of Marble Valley Specific Plan

Prepared for:
Marble Valley Company, LLC
4525 Serrano Parkway, Suite 100
El Dorado Hills, CA 95762

March 2024

Air Quality and Greenhouse Gas Modeling Technical Report

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March 2024

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LIST OF ABBREVIATIONS

CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
VMVSP	Village of Marble Valley Specific Plan
CO	carbon monoxide
CO_2	carbon dioxide
EDCAQMD	El Dorado County Air Quality Management District
EIR	Environmental Impact Report
GHG	Greenhouse Gas
kBTU	thousand British thermal units
kWh	kilowatt hour
RPS	Renewable Portfolio Standards
SMAQMD	Sacramento Metropolitan Air Quality Management District
VMT	vehicle miles traveled
VOC	volatile organic compounds

1 INTRODUCTION

This Air Quality and Greenhouse Gas (GHG) Technical Report (referred to as Technical Report hereafter) presents an update to the emissions modeling conducted for the Village of Marble Valley Specific Plan (VMVSP) Environmental Impact Report (EIR), using the latest emissions modeling software and accounting for recent legislative requirements that address air pollutant and GHG emissions reductions. These updated emissions estimates shall be the basis for updating significance determinations for impacts AQ-2a and AQ-2b of Section 3.2 Air Quality of the VMVSP EIR, and Impacts GHG-1a and GHG-1b of Section 3.6, Greenhouse Gas Emissions of the VMVSP EIR, in accordance with El Dorado County Air Quality Management District (EDCAQMD) thresholds (EDCAQMD 2002a).

2 PROJECT DESCRIPTION

The proposed project would be a mixed-use community consisting of residential, commercial, retail, agricultural, and open space uses. Specifically, the proposed project would allow the development of up to 3,236 residential units, 475,000 square feet of commercial uses, 55 acres of agricultural use, 87 acres of public facilities/ recreational use (including 47 acres of public parkland), and 61 acres of road impact areas and future rights-of-way. The proposed project also would designate 1,284 acres as natural open space; 466 acres of which would allow for active recreation, including camps, equestrian trails, and mountain biking trails. The proposed project would be designed in a manner that would concentrate a majority of the density and intensity in a 1-mile core along the entry roadway and would be designed to preserve, enhance, and highlight the historical use of the property for limestone quarrying. In addition, the proposed project includes a special project theme focusing on vineyard landscapes.

Several infrastructure improvements outside the VMVSP area would be required to support the project. These off-site improvements would include connections to existing water and wastewater facilities, road extensions, pedestrian access and recreational trails, and a backbone recycled water system within the planning area.

3 AIR QUALITY

This section presents the air quality assessment which includes emissions estimates for short-term (construction) and long-term (operational) increases in criteria air pollutants (i.e., particulate matter) and precursors (i.e., reactive organic gases [ROG] and nitrogen oxides [NO_X]). This assessment includes carbon monoxide (CO) mass emissions modeling but does not include CO dispersion modeling nor analysis of toxic air contaminants and odors. The following sections present the methods of analysis and associated air pollutant emissions that could result from buildout of the VMVSP.

3.1 METHODS

Air pollutant emissions associated with construction and operation of the project were assessed and quantified using standard and accepted software tools, techniques, and emissions factors. The construction and operational emissions modeling and assessment is consistent with the recommendations of EDCAQMD and the California Air Resources Board (CARB). In addition, recent legislative requirements, VMVSP policies, and EIR mitigation measures that would result in emission reductions are included as mitigated project scenarios. A summary of modeling methodology and calculations for construction and operational emissions is provided below.

3.1.1 Construction

Criteria air pollutant and precursor emissions associated with project construction were estimated using the California Emissions Estimator Model (CalEEMod), version 2022.1. which were the latest tools available at the time of the analysis. Modeling inputs included project-specific land use types and sizes and construction phasing, timing and activities included in Chapter 2, "Project Description," of the EIR, and provided by the project applicant. Model defaults for all other assumptions were used for construction emissions modeling. Buildout of the project was assumed to occur over an extended period beginning in 2025, with full buildout anticipated in 2045. Construction

was assumed to progress according to the schedule summarized in Table 3-1. See Appendix A for model outputs and detailed assumptions.

Table 3-1. Construction Scheduling and Phasing

Land Use Type	Value	Year																	
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18
Residential (units)																			
Bed and Breakfast	14																	X	X
Apartments above Commercial/Mixed Use	50							X	X				X	X					
VRL Single Family	1,963	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VRM – Condo/Townhome	708	X	X	X	X	X	X	X	X		X	X	X	X				X	X
VRH – Multifamily	501		X	X				X	X		X	X	X	X					
Onsite Features																			
Middle School (acres)	19												X						
Elementary school (acres)	16																		X
Commercial/retail use (square feet)	100,000					X					X						X		
Office (square feet)	375,000								X	X	X	X	X	X	X	X			X
Parks (acres)	58	X						X			X	X		X	X	X		X	X
Pedestrian/recreational trails (feet)	32,020			X									X						X
Vineyards (acres)	55			X					X					X					X
Roads and landscaped lots (acres)	11			X					X										
Sewer Improvements (feet)	22,775		X							X				X					
Offsite Improvements (feet)																			
US 50 to Marble Lake Blvd. – Phase I	4,000	X																	
Marble Lake Boulevard	5,500	X																	
Lime Rock Valley Rd from Marble Lake Blvd – Phase I	1,750		X																
Lime Rock Valley Rd to Deer Creek Rd – Phase I	5,800		X																
Bass Lake Road Interim Interchange	4,000			X	X														
Marble Valley Parkway – Marble Lake Blvd to PL	1,600											X							
Marble Valley Parkway – PL to Crazy Horse	2,400											X							
Lime Rock Valley Rd to PL – Phase II	4,175									X									
Cambridge Interim Interchange Improvements	4,000									X	X								
US 50 to Marble Lake Blvd. – Phase II	4,000															X			
Marble Valley – Off site – frontage	2,700																	X	
24" Potable Water Transmission Line – Drainage	28,700		X	X															

3.1.2 Operation

Operational mobile, area, and energy emissions were also estimated using CalEEMod, version 2022.1 using a combination of project-specific information and model defaults. Modeling inputs included land use types, sizes, and other project details and assumptions included the EIR, including updated inputs from the project applicant. Project-specific trip rates and vehicle miles traveled (VMT) were obtained from the Fehr & Peers Technical Memorandum dated April 9, 2021, which were used to estimate mobile-source emissions. Fully mitigated mobile emissions include the mitigated VMT estimate identified by Fehr & Peers as a result of Mitigation Measure TRA-2 which shifts 25,000 square feet of commercial office use to commercial retail use. Electricity consumption is based on model defaults, while electricity emissions factors were adjusted based on the most recent power label available for Pacific Gas & Electric (PG&E) to account for an increase in carbon-free electricity pursuant to the Renewables Portfolio Standard (RPS) anticipated for operational years including in this analysis. Area-source and waste emissions were modeled using CalEEMod default values. Water and wastewater emissions were modeled using project-specific consumption values specified in the water supply assessment.

Operational modeling was conducted for various years. For purposes of analysis, buildout is assumed to occur in 2045. Additionally, operational modeling was conducted for operational years that could potentially overlap with construction. As discussed below and as shown in Table 3.1, vertical construction of several residential units would begin in year 1 and operation emissions could begin immediately thereafter in year 3. Accordingly, concurrent construction and operational activities would occur from years 3 through 18, resulting in higher maximum daily emissions than either component when analyzed separately. For purposes of analysis, it was assumed that the first operational year would be 2027 (year 3 of construction).

See Appendix A for model outputs and detailed assumptions.

3.2 RESULTS

3.2.1 Construction Emissions

Construction emissions were modeled for two scenarios: unmitigated and mitigated. The mitigated scenario includes reductions from mitigation measures provided in the EIR. As shown in Table 3-1, several construction activities would likely occur concurrently. To ensure a conservative analysis, maximum daily emissions during these periods of overlap were estimated assuming all equipment would operate at the same time. This approach identifies the maximum daily project-related air quality impact during construction. Estimated unmitigated construction emissions, which do not include emissions reductions from mitigation measures, are summarized in Table 3-2 (which is Table 3.2-4 of the EIR).

Table 3-2 Maximum Daily Unmitigated Construction Emissions (pounds per day)[a] (Table 3.2-4 of the EIR)

Year	ROG	NO_X	CO	PM_{10}			$PM_{2.5}$		
				Dust	Exhaust	Total	Dust	Exhaust	Total
Year 1	**612**	**152**	131	712	5	717	79	5	83
Year 2	**701**	53	61	20	2	22	10	2	12
Year 3	**753**	72	84	34	3	36	17	3	19
Year 4	**560**	28	29	20	1	21	10	1	11
Year 5	**612**	26	29	20	1	21	10	1	11
Year 6	**560**	25	29	20	1	21	10	1	11
Year 7	**781**	24	28	20	1	21	10	1	11
Year 8	**850**	22	26	20	1	21	10	1	11
Year 9	**626**	36	55	20	1	21	10	1	11
Year 10	**874**	21	26	20	1	21	10	1	11
Year 11[c]	**819**	33	54	20	1	21	10	1	11
Year 12	**1000**	26	37	27	1	28	14	1	14
Year 13	**804**	37	61	27	1	28	14	1	14
Year 14	**512**	17	24	20	1	20	10	1	11
Year 15	**513**	28	51	20	1	21	10	1	11
Year 16	**479**	16	23	20	1	20	10	1	11
Year 17	**517**	26	50	20	1	20	10	1	11
Year 18	**642**	26	41	34	1	35	17	1	18
Threshold	82	82	N/A	BMPs	-	-	BMPs	-	-

Notes: BMPs = best management practices; CO = carbon monoxide; N/A = not applicable; NO_X = nitrogen oxides; $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns; PM_{10} = particulate matter less than or equal to 10 microns; ROG = reactive organic gases.

Bold values indicate exceedance of applicable threshold.

[a] Values may not sum exactly due to rounding.

[b] EDCAQMD CEQA Guidelines consider dust impacts to be less than significant for projects that implement BMPs. EIR Mitigation Measure AQ-2c outlines these BMPs and is required to reduce the impact of construction-related fugitive dust to a less-than-significant level (EDCAQMD 2002b).

Source: CalEEMod 2022.1 (based on modeling conducted by Ascent in 2024).

Table 3-3 below presents the criteria air pollutant and precursor construction-related emissions from buildout of the project with EIR mitigation measures applied. Mitigated construction emissions were quantified using CalEEMod and off-model calculations in Microsoft Excel. See Appendix A for model outputs and detailed assumptions.

- **Mitigation Measure AQ-2a. Low-Volatile Organic Compounds (VOC) Coatings During Construction.** Mitigated construction modeling assumed the use of low-VOC coatings during construction activity with a VOC content of 10 grams per liter.
- **Mitigation Measure AQ-2b. 10 Percent Reduction in NO_X During Construction Years 1-2.** Mitigated construction modeling assumed a 10 percent reduction in NO_x emissions from off-road equipment during the first two construction years.[1]

[1] Based on the text for Mitigation Measure AQ-2b in the EIR, this NOx requirement will sunset on January 1, 2028 provided that CARB has implemented its In-Use Off-Road. Given that construction is now assumed to start in 2026, this mitigation

- Mitigation Measure AQ-2c. Tier 4 Final Construction Equipment Years 3-18. Mitigated construction modeling assumed Tier 4 Final off-road equipment would be used during construction between construction years 3-18.
- Mitigation Measure AQ-2d. Fugitive Dust Control During Construction. Mitigated construction modeling applied a 61 percent reduction in PM_{10} and $PM_{2.5}$ dust construction emissions from watering exposed surfaces and 55 percent reduction in PM_{10} and $PM_{2.5}$ dust emissions associated with watering unpaved construction roads. The anticipated reduction in fugitive dust is consistent with EDCAQMD's and South Coast Air Quality Management District's fugitive dust reduction methodology embedded within CalEEMod (EDCAQMD 2002b, SCAQMD 2007).

measure is assumed to apply to the first two years of construction only (2026 and 2027). Starting in year 3 (2028), Mitigation Measure AQ-2c takes over.

Table 3-3 Maximum Daily Mitigated Construction Emissions (pounds per day) with Implementation of EIR Mitigation Measures (Table 3.2-5 of the EIR)

Source	ROG[a,b]	NO_X[b,c]	CO[b]	PM_{10}			$PM_{2.5}$		
				Dust[d]	Exhaust[b]	Total[e]	Dust[d]	Exhaust[b]	Total[e]
Year 1	36	137	131	317	5	321	34	5	38
Year 2	29	48	61	6	2	7	3	2	4
Year 3	31	14	101	9	<1	9	4	<1	5
Year 4	22	4	36	5	<1	5	3	<1	3
Year 5	25	4	36	5	<1	5	3	<1	3
Year 6	22	4	36	5	<1	5	3	<1	3
Year 7	31	4	36	5	<1	5	3	<1	3
Year 8	34	6	46	7	<1	7	4	<1	4
Year 9	25	11	75	5	<1	6	3	<1	3
Year 10	35	4	36	5	<1	5	3	<1	3
Year 11	33	11	74	5	<1	5	3	<1	3
Year 12	40	6	51	7	<1	7	4	<1	4
Year 13	33	12	84	7	<1	7	4	<1	4
Year 14	21	4	36	5	<1	5	3	<1	3
Year 15	21	11	74	5	<1	5	3	<1	3
Year 16	19	4	36	5	<1	5	3	<1	3
Year 17	21	11	74	5	<1	5	3	<1	3
Year 18	26	7	61	9	<1	9	4	<1	5
Threshold	82	82	N/A	BMPs[f]	-	-	BMPs[f]	-	-

Notes: BMPs = best management practices; CO = carbon monoxide; N/A = not applicable; NO_X = nitrogen oxides; $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns; PM_{10} = particulate matter less than or equal to 10 microns; ROG = reactive organic gases.

[a] Assumes use of low-volatile organic compound (VOC) coatings that have a VOC content of 10 grams per liter per Mitigation Measure AQ-2a.

[b] Assumes use of Tier 4 Final construction equipment used during construction years 3-18 per Mitigation Measure AQ-2c.

[c] Assumes a 10 percent reduction in NO_X during construction years 1-2 per Mitigation Measure AQ-2b.

[d] Assumes a 61 percent reduction in fugitive dust from watering the active construction area and 55 percent reduction in fugitive dust from watering unpaved construction roads per Mitigation Measure AQ-2d.

[e] Values may not sum exactly due to rounding.

[f] EDCAQMD CEQA Guidelines consider dust impacts to be less than significant for projects that implement BMPs. EIR Mitigation Measure AQ-2c outlines these BMPs and is required to reduce the impact of construction-related fugitive dust to a less-than-significant level (EDCAQMD 2002b).

Source: CalEEMod 2022.1 (based on modeling conducted by Ascent in 2024)

3.2.2 Operational Emissions

Operational criteria air pollutant and precursor emissions were modeled for two scenarios: an unmitigated scenario and a fully mitigated scenario that accounts for reductions from VMVSP policies as well proposed EIR mitigation. Based on the project construction schedule, it was assumed that the first operational year at full buildout would be 2045. The scenarios are described below. Emissions were quantified using CalEEMod and off-model calculations in Microsoft Excel. See Appendix A for model outputs and detailed assumptions.

The unmitigated scenario presents criteria air pollutant and precursor emissions from project buildout with legislative requirements that are default in CalEEMod at the time of analysis. The unmitigated analysis does not take into account VMVSP policies or EIR mitigation measures.

The mitigated scenario presents criteria air pollutant and precursor emissions from project buildout with legislative requirements and VMVSP policies applied along with EIR mitigation measures. Daily operational emissions were quantified using CalEEMod and off-model calculations in Microsoft Excel. The VMVSP policies applied to this scenario are as follows:

- Policy 9.50. Natural Gas Hearths Only. Mitigated operational modeling removed all natural gas hearths. It was assumed that if electric fireplaces were installed, the electricity demand associated with electric fireplaces would be generated by the onsite renewable energy generation systems.
- Policy 9.51. Ban on Wood-burning Fireplaces. Mitigated operational modeling removed all conventional and non-conventional wood-burning fireplaces.

In addition, as described in the Draft EIR, Mitigation Measure GHG-2 identifies implementing all-electric buildings as a potential onsite strategy to reduce GHG emissions. When coupled with RPS, all electric buildings that do not consume any natural gas would not generate any emissions. However, the County's authority to require all-electric buildings may be restricted. Thus, emission reductions associated with all-electric design are not provided herein, and for modeling purposes, natural gas consumption is assumed.

Table 3-4 below presents the daily operational criteria air pollutant and precursor emissions taking into account VMVSP policies at full buildout. Table 3-5 below presents the daily operational criteria air pollutant and precursor emissions taking into account both VMVSP policies and mitigation measure TRA-2 at full buildout. As shown, criteria air pollutant and precursor emissions would exceed EDCAQMD thresholds for ROG and NOx with policies and mitigation implemented.

Table 3-4 Daily Operational Criteria Air Pollutant and Precursor Emissions at Full Buildout (pounds per day)[a] (Table 3.2-6 of the EIR)

Source	ROG	NOx	CO	PM_{10}	$PM_{2.5}$
Area	194	50	230	4	4
Energy	1	25	13	2	2
Mobile	97	44	550	131	34
Total[b]	293	120	792	137	40
Threshold	82	82	CAAQS[c]	CAAQS[c]	CAAQS[c]
Exceeds threshold?	*Yes*	*Yes*	N/A	N/A	N/A

Notes: CAAQS = California Ambient Air Quality Standards; CO = carbon monoxide; N/A = not applicable; NO_X = nitrogen oxides; $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns; PM_{10} = particulate matter less than or equal to 10 microns; ROG = reactive organic gases.

[a] Emissions account for reductions achieved by VMVSP policies 9.50 and 9.51.

[b] Values may not add due to rounding.

[c] EDCAQMD considers CO and PM_{10} emissions significant if they would cause or contribute to violations of the CAAQS or NAAQS (EDCAQMD 2002). Use of the PM_{10} standard as a surrogate for the assessment of $PM_{2.5}$ impacts is considered appropriate because $PM_{2.5}$ is a substituent of PM_{10}.

Source: CalEEMod 2022.1 (based on modeling conducted by Ascent in 2024)

Table 3-5 Fully Mitigated Daily Operational Criteria Air Pollutant and Precursor Emissions at Full Buildout (pounds per day)[a] (Table 3.2-7 of the EIR)

Source	ROG	NOx	CO	PM_{10}	$PM_{2.5}$
Area	194	50	230	4	4
Energy	1	25	13	2	2
Mobile	97	44	536	127	32
Total[b]	292	119	779	133	38
Threshold	82	82	CAAQS[c]	CAAQS[c]	CAAQS[c]
Exceeds threshold?	*Yes*	*Yes*	N/A	N/A	N/A

Notes: CAAQS = California Ambient Air Quality Standards; CO = carbon monoxide; N/A = not applicable; NO_X = nitrogen oxides; $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns; PM_{10} = particulate matter less than or equal to 10 microns; ROG = reactive organic gases.

[a] Emissions account for reductions achieved by VMVSP policies 9.50 and 9.51, along with MM GHG-2 and TRA-2.

[b] Values may not add due to rounding.

[c] EDCAQMD considers CO and PM_{10} emissions significant if they would cause or contribute to violations of the CAAQS or NAAQS (EDCAQMD 2002). Use of the PM_{10} standard as a surrogate for the assessment of $PM_{2.5}$ impacts is considered appropriate because $PM_{2.5}$ is a substituent of PM_{10}.

Source: CalEEMod 2022.1 (based on modeling conducted by Ascent in 2024)

Construction of several residential units was assumed to start in year 1 and be completed by the end of year 2, with operational emissions beginning immediately thereafter in year 3. Accordingly, concurrent construction and operational activities would occur from years 3 through 18, resulting in higher maximum daily emissions than either component when analyzed separately.

Combined construction and operational emissions are presented in Table 3-6 and compared with the EDCAQMD's thresholds. The estimated construction emissions assume implementation of Mitigation Measures AQ-2a through AQ-2d; operational emissions include emissions benefits from applicable and quantifiable VMVSP policies (Policies 9.50, and 9.51). Mitigation Measures GHG-1, GHG-2, and TRA-2 are not included in the assessment. The analysis also conservatively assumes all structures would be fully occupied immediately following construction.

As shown, combined construction and operational emissions would exceed EDCAQMD's thresholds for ROG and NOx.

Table 3-6 Maximum Daily Mitigated Combined Construction and Operational Emissions (pounds per day) with Implementation of VMVSP Policies and EIR Mitigation Measures [a] (Table 3.2-8 in the EIR)

Year[b]	ROG	NO_X	CO	PM_{10}			$PM_{2.5}$		
				Dust	Exhaust	Total	Dust	Exhaust	Total
Year 3	67	34	211	23	1	24	8	1	9
Year 4	78	35	206	27	1	29	8	1	10
Year 5	**94**	41	243	33	2	34	10	2	11
Year 6	**106**	47	278	38	2	40	11	2	13
Year 7	**132**	53	319	44	2	47	13	2	15
Year 8	**152**	63	382	55	3	58	16	3	19
Year 9	**161**	76	461	62	3	65	17	3	20
Year 10	**188**	75	461	68	4	71	19	4	22
Year 11[c]	**206**	**89**	553	77	4	81	21	4	25
Year 12	**237**	**93**	590	88	5	93	24	5	29
Year 13	**250**	**107**	679	98	5	103	27	5	32
Year 14	**261**	**109**	716	113	6	119	30	5	36
Year 15	**273**	**118**	776	117	6	123	31	6	37
Year 16	**282**	**115**	761	121	6	127	32	6	38
Year 17	**295**	**124**	822	125	6	132	33	6	39
Year 18	**312**	**125**	839	135	7	141	36	6	43
Threshold	82	82	CAAQS[c]	BMPs	-	CAAQS[c]	BMPs	-	CAAQS[c]

Notes: CO = carbon monoxide; N/A = not applicable; NO_X = nitrogen oxides; $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns; PM_{10} = particulate matter less than or equal to 10 microns; ROG = reactive organic gases.

Bold values indicate exceedance of applicable threshold.

[a] Values may not sum exactly due to rounding.

[b] Buildout of the project is anticipated to occur over an extended period beginning in 2025. Emissions were quantified assuming construction would begin in 2025 and the first buildings could become operational in 2027.

[c] EDCAQMD considers CO and PM_{10} emissions significant if they would cause or contribute to violations of the CAAQS or NAAQS (EDCAQMD 2002). Use of the PM_{10} standard as a surrogate for the assessment of $PM_{2.5}$ impacts is considered appropriate because $PM_{2.5}$ is a substituent of PM_{10}.

Source: CalEEMod 2022.1 (based on modeling conducted by Ascent in 2024)

4 GREENHOUSE GASES

This section presents the GHG assessment which includes emissions estimates for short-term (construction) and long-term (operational) increases in GHG emissions. The following sections present the methods of analysis and associated GHG emissions that could result from buildout of the VMVSP.

4.1 METHODS

GHG emissions modeling associated with construction and operation of the project were assessed and quantified using standard and accepted software tools, techniques, and emission factors. The construction and operational emissions modeling and assessment is consistent with the recommendations of EDCAQMD and CARB. In addition, recent legislative requirements, VMVSP policies, and mitigation measures that result in emissions reductions are included as mitigated project scenarios. A summary of modeling methodology and calculations for construction and operational emissions is provided below.

4.1.1 Construction

GHG emissions from construction of the project were estimated using CalEEMod, version 2022.1, which was the latest tool available at the time of the analysis. Modeling inputs included project-specific land use types and sizes and construction phasing, timing and activities included in EIR Chapter 2, "Project Description," including updated inputs and project timing from the project applicant. Model defaults for all other assumptions were used for construction emission modeling. Buildout of the project was assumed to occur over an eighteen-year period beginning in 2025. Construction was assumed to progress according to the general schedule summarized in Table 3-1. See Appendix A for model outputs and detailed assumptions.

Construction of the project would result in the conversion of oak woodlands, riparian woodlands, grasslands, and wetlands. Removal of this vegetation would result in a one-time change in carbon stock. The resulting carbon dioxide (CO_2) loss was quantified using CalEEMod for the acreages shown in Table 3.3-5 in Section 3.3., "Biological Resources," of the EIR, which accounts for permanent acreage losses of riparian woodlands, forest lands, grasslands, and wetlands. Permanent reductions to oak woodlands were modeled using U.S. Department of Agriculture Forest Service's i-Tree Planting Calculator (i-Tree), version 2.6.0, to model carbon storage lost due to tree removal (USDA Forest Service 2023). However, due to the oak tree replanting requirements identified in the Oak Resources Technical Report (Appendix F of the EIR), estimated carbon sequestration associated with replanting was also quantified using i-Tree. The change (or loss) of carbon due to conversion of riparian woodlands, grasslands, and wetlands were estimated using the Vegetation module in CalEEMod, which estimates changes in carbon associated with soil and aboveground and belowground biomass due to land use change. The one-time change in carbon stock were estimated using default CO_2 accumulation rates for grasslands and shrublands and the acreages shown in Table 3.3-5 in Section 3.3., "Biological Resources," of the EIR. Both i-Tree and CalEEMod were modeled assuming a 30-year project lifetime.

4.1.2 Operation

Operational mobile, area, energy, water, solid waste, and wastewater emissions were also estimated using CalEEMod, version 2022.1. Modeling inputs included land use types, sizes, and other project details and assumptions included in the EIR, including updated input from the project applicant. Project-specific trip rates and VMT were obtained from Fehr & Peers, which were used to estimate mobile-source emissions. Fully mitigated mobile emissions include the mitigated VMT estimate identified by Fehr & Peers as a result of mitigation measure TRA-2 which shifts 25,000 square feet of commercial office use to commercial retail use. Water and wastewater emissions were modeled using project-specific water use factors by land use type in the Water Supply Assessment (WSA) included in Appendix K of the EIR. Electricity emissions factors were adjusted to account for an increase in carbon-free electricity pursuant to RPS

anticipated for future modeled years (2030 and 2045; see discussion below). Model defaults for all other assumptions were used for operation emission modeling. See Appendix A for model outputs and detailed assumptions. The new vineyards could result in N_2O emissions if nitrogen-based fertilizers are used. Potential emissions resulting from vineyard fertilizer use were calculated using emission factors from Intergovernmental Panel on Climate Change (2019) and application rates from the California Department of Food and Agriculture (2024). It was conservatively assumed nitrogen-based fertilizers would be used on all new vineyards assuming 18 acres are operational by 2030 and all 55 acres are operational by 2045.

Oak woodlands are protected by policies in the El Dorado County General Plan and County Code of Ordinances which include various replanting requirements if a project results in the permanent removal of oak trees. The resulting CO_2 sequestered as a result of tree replanting was quantified using i-Tree for the required replacement amounts discussed in the Oak Resources Technical Report, included in Appendix F of the EIR. The oak technical report addresses impacts on oak woodlands and individual oak trees and provides mitigation for those impacts. Accordingly, the project is required to mitigate all native oak tree impacts at a 1:1 inch ratio and all heritage oak trees at a 3:1 inch ratio. Each replacement tree is defined as a 1-gallon sapling or three locally collected acorns and is assumed to sequester over a 30-year life period. The total amount of CO_2 sequestered as a result of the tree planting was divided over a 30-year life span and the annual CO_2 emissions sequestered was subtracted from the project's annual GHG emissions.

4.2 RESULTS

4.2.1 Construction Emissions

Construction emissions were modeled in CalEEMod. Estimated construction GHG emissions are summarized in Table 4-1.

Table 4-1 Construction-Related Greenhouse Gas Emissions (Table 3.6-4 of the EIR)

Construction Year	$MTCO_2e$
Year 1	1,606
Year 2	1,164
Year 3	1,364
Year 4	434
Year 5	456
Year 6	428
Year 7	497
Year 8	520
Year 9	1,067
Year 10	521
Year 11	1,107
Year 12	707
Year 13	1,205
Year 14	392
Year 15	1,001
Year 16	382
Year 17	1,004
Year 18	684
Total construction emissions	14,538
One-time sequestration loss	(+)15,436
Total construction emissions with one-time sequestration loss	29,974

Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent.

Source: CalEEMod version 2022.1 and USDA i-Tree version 2.6.01.2 (based on modeling conducted by Ascent in 2024).

4.2.2 Operational Emissions

Operational emissions were modeled for three scenarios: an unmitigated scenario, a partially mitigated scenario that accounts for reductions from recent legislative requirements and quantified VMVSP policies, and a mitigated scenario that accounts for reductions from recent legislative requirements, quantified VMVSP policies, and EIR mitigation. GHG emissions were modeled for two analysis years. 2030 and 2045 were modeled to align with CARB milestone years for GHG reduction planning efforts at the state level. 2045 is also the assumed the first operational year at full buildout. The scenarios are described below. Emissions were quantified using CalEEMod and off-model calculations in Microsoft Excel. See Appendix A for model outputs and detailed assumptions.

The unmitigated scenario presents GHG emissions estimates from project buildout with legislative requirements that are default in CalEEMod at the time of analysis. The unmitigated analysis does not take into account any VMVSP policies or mitigation measures.

The partially mitigated scenario presents GHG emissions from project buildout with legislative requirements and VMVSP policies applied. The EIR mitigation measures are not accounted for in this scenario. Annual operational emissions were quantified using CalEEMod and off-model calculations in Microsoft Excel.

- **RPS.** Mitigated operational modeling adjusted the electric utility provider emissions factors to account for increase in carbon-free electricity pursuant to RPS. For the two modeling years, the electrical grid emission factor was adjusted to assume 60 percent carbon-free in 2030 and 100 percent carbon-free in 2045. See Appendix A for calculations.
- **Policy 9.16. Energy Efficient Appliances.** Mitigated operational modeling assumed energy-efficient appliances (i.e., fans, dishwashers, refrigerators, and washing machines) would be installed in all residential land use types.
- **Policy 9.36. Residential Indoor Water.** Mitigated operational modeling assumed a 20 percent reduction from the 2008 Plumbing Code baseline for residential uses, or achieve the then-current Plumbing Code in effect at the time of construction.
- **Policy 9.42 Outdoor Water Conservation Measures.** Mitigated operational modeling assumed utilization of low-water consumption irrigation systems to reduce outdoor water consumption.
- **Policy 9.45 Turf Reduction.** Mitigated operational modeling assumed all non-public uses within the Plan Area shall limit the use of turf to no more than 25 percent of the total landscaped area.
- **Policy 9.51. Natural Gas Hearths Only.** Mitigated operational modeling assumed no wood-burning hearths would be installed in favor of less polluting devices, such as natural gas hearths. Mitigated operational modeling removed all conventional and non-conventional wood-burning fireplaces.

The mitigated scenario presents emissions with legislative requirements, VMVSP policies, and EIR mitigation measures. The legislative adjustments, VMVSP policies, and EIR mitigation applied to this scenario are as follows:

- **RPS** and **VMVSP Policies 9.16, 9.36, 9.42, 9.45, and 9.51.** The same assumptions described in the scenario above were applied.
- **Mitigation Measure GHG-2.** Revisions to Policy 9.4, Policy 9.22, and Policy 9.37.
  - **Policy 9.4. Level 2 Plug in Electric Vehicle (PEV) Charging Stations.** Mitigated operational modeling assumed amount of Level 2 PEV chargers required for Village Residential Medium, Village Residential High, and Commercial Retail Residential designations was consistent with guidance in the draft 2022 California Green Building Standards Code (CALGreen) (BSC 2021). Commercial building square footage amounts were used to determine the required number of EV chargers and TRA-2 was assumed to be implemented resulting in a 25,000 square foot shift from commercial office to commercial retail. GHG emissions reductions associated with installing PEV chargers was calculated using Sacramento Air Quality Management District's *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (GHG Handbook) (SMAQMD 2021). Modeling assumed an increase in electricity emissions as a result of additional energy demand from operating electric vehicle chargers, which was also calculated based on guidance in the GHG Handbook.
  - **Policy 9.22. Residential Rooftop Solar.** Mitigated operational modeling assumed all residential units would install 4 kilowatts [kW]) of rooftop solar on each residential unit. Kilowatt-hour (kWh) of generation was estimated based on a 4-kW system in El Dorado County using the National Renewable Energy Laboratory's PVWatts Model.
  - **Policy 9.37. Residential Outdoor 30 Percent Reduction in Water Use.** Mitigated operational modeling assumed a 30 percent reduction in indoor residential water use. Water consumption was based on project specific WSA factors for individual land use types.
- **Mitigation Measure TRA-2. Shifting 25,000 square feet of commercial office space to commercial retail.** Mitigated operational modeling assumed a 25,000 square foot shift in commercial land use square footages for office and retail space in order meet the objective of TRA-2 of reducing VMT per capita. The reduced annual VMT was used to estimate mobile emissions in the mitigated operational modeling.

Other policies that would be revised per GHG-2, including Policy 9.6 (exterior electric outlets), Policy 9.13 (cool roofs), Policy 9.33 (composting) measures, were not quantified because insufficient information was available to quantify

reductions from those measures. Table 4-2 below presents the annual GHG emission estimates for each of these three scenarios for 2030 and 2045.

Table 4-2 2030 and 2045 Operational Greenhouse Gas Emissions Associated with Unmitigated and Mitigated With VMVSP Policies and EIR Measures Scenarios (metric tons per year) (Tables 3.6-5, 3.6-6, and 3.3-8 of the EIR)

Scenario	CO_2	CH_4	N_2O	HFCs[a]	*Sequestration CO_2*[b]	$MTCO_2e$
	2030					
Unmitigated (Table 3.6-5 of EIR)	8,914	8	0.44	8	*-2,798*	6,445
With VMVSP Policies (Table 3.6-6 of EIR)	8,227	8	0.41	8	*-2,798*	5,762
Mitigated[c] (Table 3.6-8 of EIR)	7,623	8	0.40	8	*-2,798*	5,155
	2045					
Unmitigated (Table 3.6-5 of EIR)	30,020	34	1.4	10	*-2,798*	28,498
With VMVSP Policies (Table 3.6-6 of EIR)	27,596	35	1.2	10	*-2,798*	26,033
Mitigated[c] (Table 3.6-8 of EIR)	26,349	34	1.2	10	*-2,798*	24,781

Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent; CO2 = carbon dioxide; CH4 = methane; N2O = nitrous oxide.

[a] HFC amounts account for GWP.

[b] Sequestration accounts for tree planting. Value presented is the annual number, assuming a 30-year project duration.

[c] Emissions reductions account for mandatory quantified VMVSP policies, state regulations, and EIR mitigation measures.

Source: CalEEMod version 2022.1 and USDA i-Tree version 2.6.0 (based on modeling conducted by Ascent in 2024).

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Appendix A

Air Quality and Greenhouse Gas Modeling Results

Construction Modeling

MV vertical linear Year 1 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 1
Construction Start Date	1/1/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	51.0	Dwelling Unit	5.90	54,060	0.00	—	130	—

Apartments Low Rise	0.00	Dwelling Unit	0.00	0.00	0.00	—	0.00	—
Single Family Housing	110	Dwelling Unit	38.4	214,500	1,288,414	—	279	—
City Park	6.50	Acre	6.50	0.00	0.00	0.00	—	—
Road Construction	1.80	Mile	8.70	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.67	4.80	39.0	49.7	0.09	1.65	4.47	6.12	1.51	0.65	2.17	—	10,744	10,744	0.42	0.21	6.31	10,822
Mit.	5.67	4.80	39.0	49.7	0.09	1.65	2.12	3.76	1.51	0.40	1.91	—	10,744	10,744	0.42	0.21	6.31	10,822
% Reduced	—	—	—	—	—	—	53%	38%	—	39%	12%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.78	604	57.3	60.6	0.12	2.44	20.0	21.5	2.25	10.2	11.6	—	13,707	13,707	0.55	0.21	0.16	13,760
Mit.	7.78	27.7	57.3	60.6	0.12	2.44	5.41	6.99	2.25	2.70	4.15	—	13,707	13,707	0.55	0.21	0.16	13,760

% Reduced	—	95%	—	—	—	—	73%	68%	—	73%	64%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.39	26.0	23.9	29.3	0.05	0.99	2.66	3.65	0.91	0.68	1.59	—	6,396	6,396	0.24	0.12	1.60	6,439
Mit.	3.39	3.85	23.9	29.3	0.05	0.99	1.25	2.24	0.91	0.31	1.22	—	6,396	6,396	0.24	0.12	1.60	6,439
% Reduced	—	85%	—	—	—	—	53%	39%	—	55%	23%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.62	4.74	4.36	5.34	0.01	0.18	0.49	0.67	0.17	0.12	0.29	—	1,059	1,059	0.04	0.02	0.26	1,066
Mit.	0.62	0.70	4.36	5.34	0.01	0.18	0.23	0.41	0.17	0.06	0.22	—	1,059	1,059	0.04	0.02	0.26	1,066
% Reduced	—	85%	—	—	—	—	53%	39%	—	55%	23%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	5.67	4.80	39.0	49.7	0.09	1.65	4.47	6.12	1.51	0.65	2.17	—	10,744	10,744	0.42	0.21	6.31	10,822
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	7.78	604	57.3	60.6	0.12	2.44	20.0	21.5	2.25	10.2	11.6	—	13,707	13,707	0.55	0.21	0.16	13,760
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.39	26.0	23.9	29.3	0.05	0.99	2.66	3.65	0.91	0.68	1.59	—	6,396	6,396	0.24	0.12	1.60	6,439
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2025	0.62	4.74	4.36	5.34	0.01	0.18	0.49	0.67	0.17	0.12	0.29	—	1,059	1,059	0.04	0.02	0.26	1,066

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	5.67	4.80	39.0	49.7	0.09	1.65	2.12	3.76	1.51	0.40	1.91	—	10,744	10,744	0.42	0.21	6.31	10,822
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	7.78	27.7	57.3	60.6	0.12	2.44	5.41	6.99	2.25	2.70	4.15	—	13,707	13,707	0.55	0.21	0.16	13,760
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.39	3.85	23.9	29.3	0.05	0.99	1.25	2.24	0.91	0.31	1.22	—	6,396	6,396	0.24	0.12	1.60	6,439
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.62	0.70	4.36	5.34	0.01	0.18	0.23	0.41	0.17	0.06	0.22	—	1,059	1,059	0.04	0.02	0.26	1,066

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	0.39	3.39	3.49	< 0.005	0.21	—	0.21	0.19	—	0.19	—	490	490	0.02	< 0.005	—	492
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.24	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.9	34.9	< 0.005	< 0.005	—	35.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.78	5.78	< 0.005	< 0.005	—	5.80
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.62	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	126	126	< 0.005	0.01	0.01	128
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.18	9.18	< 0.005	< 0.005	0.02	9.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.52	1.52	< 0.005	< 0.005	< 0.005	1.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Linear, Grubbing & Land Clearing (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	0.39	3.39	3.49	< 0.005	0.21	—	0.21	0.19	—	0.19	—	490	490	0.02	< 0.005	—	492
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.24	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.9	34.9	< 0.005	< 0.005	—	35.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.78	5.78	< 0.005	< 0.005	—	5.80
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.06	0.62	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	126	126	< 0.005	0.01	0.01	128
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.18	9.18	< 0.005	< 0.005	0.02	9.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.52	1.52	< 0.005	< 0.005	< 0.005	1.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Linear, Grading & Excavation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.71	3.11	27.3	29.4	0.06	1.21	—	1.21	1.11	—	1.11	—	6,496	6,496	0.26	0.05	—	6,518

Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.71	3.11	27.3	29.4	0.06	1.21	—	1.21	1.11	—	1.11	—	6,496	6,496	0.26	0.05	—	6,518
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	1.00	8.75	9.42	0.02	0.39	—	0.39	0.36	—	0.36	—	2,082	2,082	0.08	0.02	—	2,089
Dust From Material Movement	—	—	—	—	—	—	1.02	1.02	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.60	1.72	< 0.005	0.07	—	0.07	0.06	—	0.06	—	345	345	0.01	< 0.005	—	346
Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.12	2.36	0.00	0.00	0.38	0.38	0.00	0.09	0.09	—	421	421	0.02	0.02	1.63	427
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.5	31.5	< 0.005	< 0.005	0.08	33.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.17	1.86	0.00	0.00	0.38	0.38	0.00	0.09	0.09	—	379	379	0.01	0.02	0.04	383
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.5	31.5	< 0.005	< 0.005	< 0.005	32.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.61	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	124	124	< 0.005	< 0.005	0.22	126
Vendor	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.1	10.1	< 0.005	< 0.005	0.01	10.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.5	20.5	< 0.005	< 0.005	0.04	20.8
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.67	1.67	< 0.005	< 0.005	< 0.005	1.75
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Linear, Grading & Excavation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.71	3.11	27.3	29.4	0.06	1.21	—	1.21	1.11	—	1.11	—	6,496	6,496	0.26	0.05	—	6,518
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.71	3.11	27.3	29.4	0.06	1.21	—	1.21	1.11	—	1.11	—	6,496	6,496	0.26	0.05	—	6,518
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	1.00	8.75	9.42	0.02	0.39	—	0.39	0.36	—	0.36	—	2,082	2,082	0.08	0.02	—	2,089
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.60	1.72	< 0.005	0.07	—	0.07	0.06	—	0.06	—	345	345	0.01	< 0.005	—	346
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.12	2.36	0.00	0.00	0.38	0.38	0.00	0.09	0.09	—	421	421	0.02	0.02	1.63	427
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.5	31.5	< 0.005	< 0.005	0.08	33.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.17	1.86	0.00	0.00	0.38	0.38	0.00	0.09	0.09	—	379	379	0.01	0.02	0.04	383
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.5	31.5	< 0.005	< 0.005	< 0.005	32.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.61	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	124	124	< 0.005	< 0.005	0.22	126
Vendor	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.1	10.1	< 0.005	< 0.005	0.01	10.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.5	20.5	< 0.005	< 0.005	0.04	20.8
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.67	1.67	< 0.005	< 0.005	< 0.005	1.75
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Linear, Drainage, Utilities, & Sub-Grade (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.99	2.51	22.9	23.6	0.05	0.91	—	0.91	0.84	—	0.84	—	5,694	5,694	0.23	0.05	—	5,713
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.99	2.51	22.9	23.6	0.05	0.91	—	0.91	0.84	—	0.84	—	5,694	5,694	0.23	0.05	—	5,713
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.54	4.90	5.05	0.01	0.20	—	0.20	0.18	—	0.18	—	1,217	1,217	0.05	0.01	—	1,221
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.89	0.92	< 0.005	0.04	—	0.04	0.03	—	0.03	—	201	201	0.01	< 0.005	—	202
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.11	2.04	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	365	365	0.02	0.01	1.41	370
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.14	1.61	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	328	328	0.01	0.01	0.04	332
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	71.6	71.6	< 0.005	< 0.005	0.13	72.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.9	11.9	< 0.005	< 0.005	0.02	12.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Linear, Drainage, Utilities, & Sub-Grade (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.99	2.51	22.9	23.6	0.05	0.91	—	0.91	0.84	—	0.84	—	5,694	5,694	0.23	0.05	—	5,713
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.99	2.51	22.9	23.6	0.05	0.91	—	0.91	0.84	—	0.84	—	5,694	5,694	0.23	0.05	—	5,713
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.54	4.90	5.05	0.01	0.20	—	0.20	0.18	—	0.18	—	1,217	1,217	0.05	0.01	—	1,221
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.89	0.92	< 0.005	0.04	—	0.04	0.03	—	0.03	—	201	201	0.01	< 0.005	—	202
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.11	2.04	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	365	365	0.02	0.01	1.41	370
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.14	1.61	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	328	328	0.01	0.01	0.04	332
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.35	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	71.6	71.6	< 0.005	< 0.005	0.13	72.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.9	11.9	< 0.005	< 0.005	0.02	12.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Linear, Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.06	0.89	7.71	10.8	0.01	0.34	—	0.34	0.31	—	0.31	—	1,620	1,620	0.07	0.01	—	1,625
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.82	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	173	173	0.01	< 0.005	—	174
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.7	28.7	< 0.005	< 0.005	—	28.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.11	1.24	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	252	252	0.01	0.01	0.03	256
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.5	27.5	< 0.005	< 0.005	0.05	27.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.56	4.56	< 0.005	< 0.005	0.01	4.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Linear, Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.06	0.89	7.71	10.8	0.01	0.34	—	0.34	0.31	—	0.31	—	1,620	1,620	0.07	0.01	—	1,625
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.82	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	173	173	0.01	< 0.005	—	174
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.7	28.7	< 0.005	< 0.005	—	28.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.11	1.24	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	252	252	0.01	0.01	0.03	256
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.5	27.5	< 0.005	< 0.005	0.05	27.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.56	4.56	< 0.005	< 0.005	0.01	4.62

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.94	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.61	0.58	< 0.005	0.03	—	0.03	0.02	—	0.02	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.38	0.38	—	0.19	0.19	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.11	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	0.87	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	177	177	< 0.005	0.01	0.02	179
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.46	3.46	< 0.005	< 0.005	0.01	3.51
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.57	0.57	< 0.005	< 0.005	< 0.005	0.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Site Preparation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.94	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.61	0.58	< 0.005	0.03	—	0.03	0.02	—	0.02	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	0.87	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	177	177	< 0.005	0.01	0.02	179
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.46	3.46	< 0.005	< 0.005	0.01	3.51
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.57	0.57	< 0.005	< 0.005	< 0.005	0.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622

Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.18	1.63	1.55	< 0.005	0.07	—	0.07	0.06	—	0.06	—	362	362	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.9	59.9	< 0.005	< 0.005	—	60.1
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.09	0.09	0.99	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	202	202	0.01	0.01	0.02	204
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.02	11.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.87	1.87	< 0.005	< 0.005	< 0.005	1.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.18	1.63	1.55	< 0.005	0.07	—	0.07	0.06	—	0.06	—	362	362	0.01	< 0.005	—	363

Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.9	59.9	< 0.005	< 0.005	—	60.1
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.09	0.09	0.99	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	202	202	0.01	0.01	0.02	204
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.02	11.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.87	1.87	< 0.005	< 0.005	< 0.005	1.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	0.63	5.87	7.32	0.01	0.24	—	0.24	0.22	—	0.22	—	1,347	1,347	0.05	0.01	—	1,351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.07	1.34	< 0.005	0.04	—	0.04	0.04	—	0.04	—	223	223	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.40	0.37	0.25	4.80	0.00	0.00	0.77	0.77	0.00	0.18	0.18	—	856	856	0.04	0.03	3.31	870
Vendor	0.02	0.02	0.82	0.14	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	542	542	< 0.005	0.08	1.29	568
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.33	0.34	3.78	0.00	0.00	0.77	0.77	0.00	0.18	0.18	—	770	770	0.02	0.03	0.09	780
Vendor	0.02	0.02	0.87	0.15	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	542	542	< 0.005	0.08	0.03	567
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.17	2.16	0.00	0.00	0.43	0.43	0.00	0.10	0.10	—	442	442	0.01	0.02	0.80	448
Vendor	0.01	0.01	0.48	0.08	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	305	305	< 0.005	0.05	0.31	319
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.39	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	73.2	73.2	< 0.005	< 0.005	0.13	74.2
Vendor	< 0.005	< 0.005	0.09	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	50.4	50.4	< 0.005	0.01	0.05	52.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	0.63	5.87	7.32	0.01	0.24	—	0.24	0.22	—	0.22	—	1,347	1,347	0.05	0.01	—	1,351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.07	1.34	< 0.005	0.04	—	0.04	0.04	—	0.04	—	223	223	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.40	0.37	0.25	4.80	0.00	0.00	0.77	0.77	0.00	0.18	0.18	—	856	856	0.04	0.03	3.31	870
Vendor	0.02	0.02	0.82	0.14	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	542	542	< 0.005	0.08	1.29	568
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.33	0.34	3.78	0.00	0.00	0.77	0.77	0.00	0.18	0.18	—	770	770	0.02	0.03	0.09	780

Vendor	0.02	0.02	0.87	0.15	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	542	542	< 0.005	0.08	0.03	567
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.17	2.16	0.00	0.00	0.43	0.43	0.00	0.10	0.10	—	442	442	0.01	0.02	0.80	448
Vendor	0.01	0.01	0.48	0.08	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	305	305	< 0.005	0.05	0.31	319
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.39	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	73.2	73.2	< 0.005	< 0.005	0.13	74.2
Vendor	< 0.005	< 0.005	0.09	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	50.4	50.4	< 0.005	0.01	0.05	52.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	1.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.04	0.03	0.29	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	58.0	58.0	< 0.005	< 0.005	—	58.2
Paving	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.74	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	151	151	< 0.005	0.01	0.02	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.93	5.93	< 0.005	< 0.005	0.01	6.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.98	0.98	< 0.005	< 0.005	< 0.005	1.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	1.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	58.0	58.0	< 0.005	< 0.005	—	58.2
Paving	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.74	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	151	151	< 0.005	0.01	0.02	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.93	5.93	< 0.005	< 0.005	0.01	6.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.98	0.98	< 0.005	< 0.005	< 0.005	1.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.14
Architectural Coatings	—	23.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.85
Architectural Coatings	—	4.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.76	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	154	154	< 0.005	0.01	0.02	156
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.04	6.04	< 0.005	< 0.005	0.01	6.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Architectural Coating (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	24.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.14
Architectural Coatings	—	0.92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.85
Architectural Coatings	—	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.76	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	154	154	< 0.005	0.01	0.02	156
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.04	6.04	< 0.005	< 0.005	0.01	6.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	1/1/2025	2/5/2025	5.00	26.0	—
Linear, Grading & Excavation	Linear, Grading & Excavation	2/6/2025	7/20/2025	5.00	117	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	7/21/2025	11/5/2025	5.00	78.0	—
Linear, Paving	Linear, Paving	11/6/2025	12/30/2025	5.00	39.0	—
Site Preparation	Site Preparation	1/1/2025	1/9/2025	5.00	7.00	—
Grading	Grading	1/12/2025	2/7/2025	5.00	20.0	—
Building Construction	Building Construction	2/9/2025	11/21/2025	5.00	205	—

Paving	Paving	11/20/2025	12/9/2025	5.00	14.0	—
Architectural Coating	Architectural Coating	12/9/2025	12/28/2025	5.00	14.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	3.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	3.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	3.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	3.00	8.00	6.00	0.82
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20

Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	3.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	3.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	3.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	3.00	8.00	6.00	0.82
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41

Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT

Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	76.3	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	17.2	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	15.3	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	12.5	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	37.5	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT

Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	32.5	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	25.0	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	76.3	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	17.2	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT

Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	15.3	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	12.5	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	37.5	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	32.5	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—

Linear, Paving	Worker	25.0	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	543,834	181,278	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Linear, Grading & Excavation	—	—	8.70	0.00	—
Site Preparation	—	—	10.5	0.00	—
Grading	—	—	40.3	0.00	—
Paving	0.00	0.00	0.00	0.00	9.91

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Apartments Low Rise	—	0%
Single Family Housing	1.21	0%
City Park	0.00	0%
Road Construction	8.70	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	352	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2

Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00

Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622

Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6

Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	A total of 50.8 acres to be graded for vertical construction, and 8.7 acres to be graded for linear construction.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 2 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 2
Construction Start Date	1/1/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	51.0	Dwelling Unit	5.90	54,060	0.00	—	130	—

Apartments Low Rise	63.0	Dwelling Unit	3.20	66,780	0.00	—	160	—
Single Family Housing	110	Dwelling Unit	38.4	214,500	1,288,414	—	279	—
Road Construction	8.20	Mile	11.0	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.78	4.93	36.7	53.5	0.09	1.47	5.31	6.78	1.35	0.85	2.20	—	11,777	11,777	0.40	0.27	9.34	11,876
Mit.	5.78	4.93	36.7	53.5	0.09	1.47	2.95	4.42	1.35	0.59	1.95	—	11,777	11,777	0.40	0.27	9.34	11,876
% Reduced	—	—	—	—	—	—	44%	35%	—	30%	12%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.56	701	52.8	60.8	0.12	2.21	20.3	21.7	2.03	10.3	11.6	—	14,017	14,017	0.55	0.27	0.24	14,075
Mit.	7.56	29.3	52.8	60.8	0.12	2.21	5.74	7.17	2.03	2.77	4.09	—	14,017	14,017	0.55	0.27	0.24	14,075

% Reduced	—	96%	—	—	—	—	72%	67%	—	73%	65%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.45	31.8	22.6	31.0	0.05	0.89	3.22	4.11	0.82	0.83	1.65	—	6,976	6,976	0.24	0.16	2.40	7,031
Mit.	3.45	4.16	22.6	31.0	0.05	0.89	1.78	2.66	0.82	0.44	1.25	—	6,976	6,976	0.24	0.16	2.40	7,031
% Reduced	—	87%	—	—	—	—	45%	35%	—	47%	24%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.63	5.80	4.12	5.66	0.01	0.16	0.59	0.75	0.15	0.15	0.30	—	1,155	1,155	0.04	0.03	0.40	1,164
Mit.	0.63	0.76	4.12	5.66	0.01	0.16	0.32	0.49	0.15	0.08	0.23	—	1,155	1,155	0.04	0.03	0.40	1,164
% Reduced	—	87%	—	—	—	—	45%	35%	—	47%	24%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	5.78	4.93	36.7	53.5	0.09	1.47	5.31	6.78	1.35	0.85	2.20	—	11,777	11,777	0.40	0.27	9.34	11,876
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	7.56	701	52.8	60.8	0.12	2.21	20.3	21.7	2.03	10.3	11.6	—	14,017	14,017	0.55	0.27	0.24	14,075
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.45	31.8	22.6	31.0	0.05	0.89	3.22	4.11	0.82	0.83	1.65	—	6,976	6,976	0.24	0.16	2.40	7,031
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2026	0.63	5.80	4.12	5.66	0.01	0.16	0.59	0.75	0.15	0.15	0.30	—	1,155	1,155	0.04	0.03	0.40	1,164

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	5.78	4.93	36.7	53.5	0.09	1.47	2.95	4.42	1.35	0.59	1.95	—	11,777	11,777	0.40	0.27	9.34	11,876
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	7.56	29.3	52.8	60.8	0.12	2.21	5.74	7.17	2.03	2.77	4.09	—	14,017	14,017	0.55	0.27	0.24	14,075
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.45	4.16	22.6	31.0	0.05	0.89	1.78	2.66	0.82	0.44	1.25	—	6,976	6,976	0.24	0.16	2.40	7,031
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.63	0.76	4.12	5.66	0.01	0.16	0.32	0.49	0.15	0.08	0.23	—	1,155	1,155	0.04	0.03	0.40	1,164

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	0.37	3.22	3.48	< 0.005	0.19	—	0.19	0.17	—	0.17	—	490	490	0.02	< 0.005	—	492
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.23	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.9	34.9	< 0.005	< 0.005	—	35.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.78	5.78	< 0.005	< 0.005	—	5.80
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.19	0.18	2.08	0.00	0.00	0.45	0.45	0.00	0.11	0.11	—	446	446	0.01	0.02	0.05	452
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.5	32.5	< 0.005	< 0.005	0.05	32.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.37	5.37	< 0.005	< 0.005	0.01	5.45
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Linear, Grubbing & Land Clearing (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	0.37	3.22	3.48	< 0.005	0.19	—	0.19	0.17	—	0.17	—	490	490	0.02	< 0.005	—	492
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.23	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.9	34.9	< 0.005	< 0.005	—	35.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.78	5.78	< 0.005	< 0.005	—	5.80
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.19	0.18	2.08	0.00	0.00	0.45	0.45	0.00	0.11	0.11	—	446	446	0.01	0.02	0.05	452
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.5	32.5	< 0.005	< 0.005	0.05	32.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.37	5.37	< 0.005	< 0.005	0.01	5.45
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Linear, Grading & Excavation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.52	2.96	25.2	29.1	0.06	1.09	—	1.09	1.00	—	1.00	—	6,495	6,495	0.26	0.05	—	6,517

Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.52	2.96	25.2	29.1	0.06	1.09	—	1.09	1.00	—	1.00	—	6,495	6,495	0.26	0.05	—	6,517
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	0.95	8.07	9.33	0.02	0.35	—	0.35	0.32	—	0.32	—	2,082	2,082	0.08	0.02	—	2,089
Dust From Material Movement	—	—	—	—	—	—	1.02	1.02	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.17	1.47	1.70	< 0.005	0.06	—	0.06	0.06	—	0.06	—	345	345	0.01	< 0.005	—	346
Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.35	0.32	0.21	4.12	0.00	0.00	0.71	0.71	0.00	0.17	0.17	—	771	771	0.01	0.03	2.78	782
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.0	31.0	< 0.005	< 0.005	0.07	32.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.29	0.29	3.23	0.00	0.00	0.71	0.71	0.00	0.17	0.17	—	694	694	0.02	0.03	0.07	703
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.0	31.0	< 0.005	< 0.005	< 0.005	32.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	1.05	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	227	227	< 0.005	0.01	0.38	230
Vendor	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.94	9.94	< 0.005	< 0.005	0.01	10.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.19	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	37.6	37.6	< 0.005	< 0.005	0.06	38.1
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.65	1.65	< 0.005	< 0.005	< 0.005	1.72
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Linear, Grading & Excavation (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.52	2.96	25.2	29.1	0.06	1.09	—	1.09	1.00	—	1.00	—	6,495	6,495	0.26	0.05	—	6,517
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.52	2.96	25.2	29.1	0.06	1.09	—	1.09	1.00	—	1.00	—	6,495	6,495	0.26	0.05	—	6,517
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	0.95	8.07	9.33	0.02	0.35	—	0.35	0.32	—	0.32	—	2,082	2,082	0.08	0.02	—	2,089
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.17	1.47	1.70	< 0.005	0.06	—	0.06	0.06	—	0.06	—	345	345	0.01	< 0.005	—	346
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.35	0.32	0.21	4.12	0.00	0.00	0.71	0.71	0.00	0.17	0.17	—	771	771	0.01	0.03	2.78	782
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.0	31.0	< 0.005	< 0.005	0.07	32.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.29	0.29	3.23	0.00	0.00	0.71	0.71	0.00	0.17	0.17	—	694	694	0.02	0.03	0.07	703
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.0	31.0	< 0.005	< 0.005	< 0.005	32.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	1.05	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	227	227	< 0.005	0.01	0.38	230
Vendor	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.94	9.94	< 0.005	< 0.005	0.01	10.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.19	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	37.6	37.6	< 0.005	< 0.005	0.06	38.1
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.65	1.65	< 0.005	< 0.005	< 0.005	1.72
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Linear, Drainage, Utilities, & Sub-Grade (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.85	2.39	21.2	23.3	0.05	0.83	—	0.83	0.76	—	0.76	—	5,693	5,693	0.23	0.05	—	5,712
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.85	2.39	21.2	23.3	0.05	0.83	—	0.83	0.76	—	0.76	—	5,693	5,693	0.23	0.05	—	5,712
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61	0.51	4.52	4.99	0.01	0.18	—	0.18	0.16	—	0.16	—	1,216	1,216	0.05	0.01	—	1,221
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.82	0.91	< 0.005	0.03	—	0.03	0.03	—	0.03	—	201	201	0.01	< 0.005	—	202
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.30	0.19	3.83	0.00	0.00	0.66	0.66	0.00	0.15	0.15	—	716	716	0.01	0.03	2.58	726
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.30	0.27	0.27	3.00	0.00	0.00	0.66	0.66	0.00	0.15	0.15	—	644	644	0.02	0.03	0.07	652
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.65	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	141	141	< 0.005	0.01	0.24	143
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	23.3	23.3	< 0.005	< 0.005	0.04	23.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Linear, Drainage, Utilities, & Sub-Grade (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.85	2.39	21.2	23.3	0.05	0.83	—	0.83	0.76	—	0.76	—	5,693	5,693	0.23	0.05	—	5,712
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.85	2.39	21.2	23.3	0.05	0.83	—	0.83	0.76	—	0.76	—	5,693	5,693	0.23	0.05	—	5,712
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61	0.51	4.52	4.99	0.01	0.18	—	0.18	0.16	—	0.16	—	1,216	1,216	0.05	0.01	—	1,221
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.82	0.91	< 0.005	0.03	—	0.03	0.03	—	0.03	—	201	201	0.01	< 0.005	—	202
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.30	0.19	3.83	0.00	0.00	0.66	0.66	0.00	0.15	0.15	—	716	716	0.01	0.03	2.58	726
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.30	0.27	0.27	3.00	0.00	0.00	0.66	0.66	0.00	0.15	0.15	—	644	644	0.02	0.03	0.07	652
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.65	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	141	141	< 0.005	0.01	0.24	143
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	23.3	23.3	< 0.005	< 0.005	0.04	23.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Linear, Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.00	0.84	7.37	10.8	0.01	0.30	—	0.30	0.28	—	0.28	—	1,619	1,619	0.07	0.01	—	1,625
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.79	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	173	173	0.01	< 0.005	—	174
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.6	28.6	< 0.005	< 0.005	—	28.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.24	0.23	2.66	0.00	0.00	0.58	0.58	0.00	0.14	0.14	—	570	570	0.01	0.02	0.06	577
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.29	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	62.2	62.2	< 0.005	< 0.005	0.11	63.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.3	10.3	< 0.005	< 0.005	0.02	10.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Linear, Paving (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.00	0.84	7.37	10.8	0.01	0.30	—	0.30	0.28	—	0.28	—	1,619	1,619	0.07	0.01	—	1,625
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.79	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	173	173	0.01	< 0.005	—	174
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.6	28.6	< 0.005	< 0.005	—	28.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.24	0.23	2.66	0.00	0.00	0.58	0.58	0.00	0.14	0.14	—	570	570	0.01	0.02	0.06	577
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.29	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	62.2	62.2	< 0.005	< 0.005	0.11	63.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.3	10.3	< 0.005	< 0.005	0.02	10.4

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.64	0.63	< 0.005	0.03	—	0.03	0.03	—	0.03	—	116	116	< 0.005	< 0.005	—	117
Dust From Material Movement	—	—	—	—	—	—	0.43	0.43	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.12	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.81	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	173	173	< 0.005	0.01	0.02	176
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.88	3.88	< 0.005	< 0.005	0.01	3.94
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.64	0.64	< 0.005	< 0.005	< 0.005	0.65
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Site Preparation (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.64	0.63	< 0.005	0.03	—	0.03	0.03	—	0.03	—	116	116	< 0.005	< 0.005	—	117
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.12	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.81	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	173	173	< 0.005	0.01	0.02	176
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.88	3.88	< 0.005	< 0.005	0.01	3.94
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.64	0.64	< 0.005	< 0.005	< 0.005	0.65
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621

Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.17	1.49	1.51	< 0.005	0.06	—	0.06	0.06	—	0.06	—	362	362	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.27	0.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.9	59.9	< 0.005	< 0.005	—	60.1
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.92	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	198	198	< 0.005	0.01	0.02	201
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.1	11.1	< 0.005	< 0.005	0.02	11.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.84	1.84	< 0.005	< 0.005	< 0.005	1.86
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Grading (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.17	1.49	1.51	< 0.005	0.06	—	0.06	0.06	—	0.06	—	362	362	0.01	< 0.005	—	363

Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.27	0.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.9	59.9	< 0.005	< 0.005	—	60.1
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.92	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	198	198	< 0.005	0.01	0.02	201
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.1	11.1	< 0.005	< 0.005	0.02	11.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.84	1.84	< 0.005	< 0.005	< 0.005	1.86
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	0.59	5.45	7.18	0.01	0.21	—	0.21	0.19	—	0.19	—	1,327	1,327	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.00	1.31	< 0.005	0.04	—	0.04	0.04	—	0.04	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.60	0.55	0.36	7.17	0.00	0.00	1.23	1.23	0.00	0.29	0.29	—	1,340	1,340	0.02	0.05	4.83	1,360
Vendor	0.02	0.02	1.07	0.19	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.05	—	743	743	< 0.005	0.11	1.66	778
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.56	0.50	0.50	5.62	0.00	0.00	1.23	1.23	0.00	0.29	0.29	—	1,206	1,206	0.03	0.05	0.13	1,221
Vendor	0.02	0.02	1.13	0.20	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.05	—	743	743	< 0.005	0.11	0.04	777
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.31	0.28	0.25	3.16	0.00	0.00	0.68	0.68	0.00	0.16	0.16	—	682	682	0.01	0.03	1.15	691
Vendor	0.01	0.01	0.62	0.11	< 0.005	< 0.005	0.10	0.10	< 0.005	0.03	0.03	—	411	411	< 0.005	0.06	0.40	430
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.58	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	113	113	< 0.005	< 0.005	0.19	114
Vendor	< 0.005	< 0.005	0.11	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	68.0	68.0	< 0.005	0.01	0.07	71.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	0.59	5.45	7.18	0.01	0.21	—	0.21	0.19	—	0.19	—	1,327	1,327	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.00	1.31	< 0.005	0.04	—	0.04	0.04	—	0.04	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.60	0.55	0.36	7.17	0.00	0.00	1.23	1.23	0.00	0.29	0.29	—	1,340	1,340	0.02	0.05	4.83	1,360
Vendor	0.02	0.02	1.07	0.19	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.05	—	743	743	< 0.005	0.11	1.66	778
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.56	0.50	0.50	5.62	0.00	0.00	1.23	1.23	0.00	0.29	0.29	—	1,206	1,206	0.03	0.05	0.13	1,221

Vendor	0.02	0.02	1.13	0.20	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.05	—	743	743	< 0.005	0.11	0.04	777
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.31	0.28	0.25	3.16	0.00	0.00	0.68	0.68	0.00	0.16	0.16	—	682	682	0.01	0.03	1.15	691
Vendor	0.01	0.01	0.62	0.11	< 0.005	< 0.005	0.10	0.10	< 0.005	0.03	0.03	—	411	411	< 0.005	0.06	0.40	430
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.58	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	113	113	< 0.005	< 0.005	0.19	114
Vendor	< 0.005	< 0.005	0.11	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	68.0	68.0	< 0.005	0.01	0.07	71.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	1.92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.04	0.03	0.29	0.41	< 0.005	0.01	—	0.01	0.01	—	0.01	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.69	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	149	149	< 0.005	0.01	0.02	151
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.24	6.24	< 0.005	< 0.005	0.01	6.33
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.03	1.03	< 0.005	< 0.005	< 0.005	1.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Paving (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	1.92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	0.41	< 0.005	0.01	—	0.01	0.01	—	0.01	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.69	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	149	149	< 0.005	0.01	0.02	151
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.24	6.24	< 0.005	< 0.005	0.01	6.33
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.03	1.03	< 0.005	< 0.005	< 0.005	1.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	28.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	5.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.12	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	241	241	0.01	0.01	0.03	244
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.1	10.1	< 0.005	< 0.005	0.02	10.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.68	1.68	< 0.005	< 0.005	< 0.005	1.70
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Architectural Coating (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	28.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.12	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	241	241	0.01	0.01	0.03	244
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.1	10.1	< 0.005	< 0.005	0.02	10.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.68	1.68	< 0.005	< 0.005	< 0.005	1.70
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	1/1/2026	2/5/2026	5.00	26.0	—
Linear, Grading & Excavation	Linear, Grading & Excavation	2/6/2026	7/20/2026	5.00	117	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	7/21/2026	11/5/2026	5.00	78.0	—
Linear, Paving	Linear, Paving	11/6/2026	12/30/2026	5.00	39.0	—
Site Preparation	Site Preparation	1/1/2026	1/12/2026	5.00	8.00	—
Grading	Grading	1/13/2026	2/9/2026	5.00	20.0	—
Building Construction	Building Construction	2/10/2026	11/18/2026	5.00	202	—

Paving	Paving	11/19/2026	12/9/2026	5.00	15.0	—
Architectural Coating	Architectural Coating	12/10/2026	12/30/2026	5.00	15.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	16.0	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	16.0	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	16.0	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	16.0	8.00	6.00	0.82
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20

Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	16.0	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	16.0	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	16.0	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	16.0	8.00	6.00	0.82
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41

Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT

Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	122	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	23.9	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	24.3	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	45.0	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	70.0	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT

Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	65.0	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	57.5	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	122	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	23.9	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT

Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	24.3	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	45.0	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	70.0	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	65.0	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—

Linear, Paving	Worker	57.5	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	679,064	226,355	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Linear, Grading & Excavation	—	—	11.0	0.00	—
Site Preparation	—	—	12.0	0.00	—
Grading	—	—	35.5	0.00	—
Paving	0.00	0.00	0.00	0.00	12.2

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Apartments Low Rise	—	0%
Single Family Housing	1.21	0%
Road Construction	11.0	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	1,878	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2

Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00

Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622

Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6

Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	Total 47.5 acres to be graded for vertical construction, and 11 for linear construction.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 3 Detailed Report

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3.1. Linear, Grubbing & Land Clearing (2027) - Unmitigated

3.2. Linear, Grubbing & Land Clearing (2027) - Mitigated

3.3. Linear, Grading & Excavation (2027) - Unmitigated

3.4. Linear, Grading & Excavation (2027) - Mitigated

3.5. Linear, Drainage, Utilities, & Sub-Grade (2027) - Unmitigated

3.6. Linear, Drainage, Utilities, & Sub-Grade (2027) - Mitigated

3.7. Linear, Paving (2027) - Unmitigated

3.8. Linear, Paving (2027) - Mitigated

3.9. Site Preparation (2027) - Unmitigated

3.10. Site Preparation (2027) - Mitigated

3.11. Grading (2027) - Unmitigated

3.12. Grading (2027) - Mitigated

3.13. Building Construction (2027) - Unmitigated

3.14. Building Construction (2027) - Mitigated

3.15. Paving (2027) - Unmitigated

3.16. Paving (2027) - Mitigated

3.17. Architectural Coating (2027) - Unmitigated

3.18. Architectural Coating (2027) - Mitigated

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 3
Construction Start Date	1/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	51.0	Dwelling Unit	5.90	54,060	0.00	—	130	—

Apartments Low Rise	63.0	Dwelling Unit	3.20	66,780	0.00	—	160	—
Single Family Housing	110	Dwelling Unit	38.4	214,500	1,288,414	—	279	—
Road Construction	0.80	Mile	0.50	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.37	4.56	34.4	50.6	0.09	1.33	4.93	6.26	1.22	0.76	1.98	—	11,320	11,320	0.39	0.25	7.15	11,410
Mit.	1.87	1.74	10.5	61.1	0.09	0.25	2.57	2.77	0.24	0.51	0.70	—	11,320	11,320	0.39	0.25	7.15	11,410
% Reduced	65%	62%	70%	-21%	—	81%	48%	56%	80%	33%	64%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.10	751	49.3	58.5	0.12	2.03	19.9	21.2	1.87	10.2	11.4	—	13,635	13,635	0.54	0.25	0.19	13,688
Mit.	1.77	30.4	10.8	75.2	0.12	0.25	5.36	5.47	0.25	2.69	2.79	—	13,635	13,635	0.54	0.25	0.19	13,688

% Reduced	75%	96%	78%	-28%	—	88%	73%	74%	87%	74%	75%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.18	31.5	21.2	29.5	0.05	0.80	2.91	3.71	0.74	0.74	1.48	—	6,696	6,696	0.24	0.14	1.79	6,747
Mit.	1.03	2.15	6.28	35.6	0.05	0.13	1.50	1.64	0.13	0.37	0.50	—	6,696	6,696	0.24	0.14	1.79	6,747
% Reduced	68%	93%	70%	-21%	—	83%	48%	56%	82%	50%	66%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.58	5.74	3.86	5.38	0.01	0.15	0.53	0.68	0.14	0.14	0.27	—	1,109	1,109	0.04	0.02	0.30	1,117
Mit.	0.19	0.39	1.15	6.49	0.01	0.02	0.27	0.30	0.02	0.07	0.09	—	1,109	1,109	0.04	0.02	0.30	1,117
% Reduced	68%	93%	70%	-21%	—	83%	48%	56%	82%	50%	66%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	5.37	4.56	34.4	50.6	0.09	1.33	4.93	6.26	1.22	0.76	1.98	—	11,320	11,320	0.39	0.25	7.15	11,410
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	7.10	751	49.3	58.5	0.12	2.03	19.9	21.2	1.87	10.2	11.4	—	13,635	13,635	0.54	0.25	0.19	13,688
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	3.18	31.5	21.2	29.5	0.05	0.80	2.91	3.71	0.74	0.74	1.48	—	6,696	6,696	0.24	0.14	1.79	6,747
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2027	0.58	5.74	3.86	5.38	0.01	0.15	0.53	0.68	0.14	0.14	0.27	—	1,109	1,109	0.04	0.02	0.30	1,117

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.87	1.74	10.5	61.1	0.09	0.25	2.57	2.77	0.24	0.51	0.70	—	11,320	11,320	0.39	0.25	7.15	11,410
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.77	30.4	10.8	75.2	0.12	0.25	5.36	5.47	0.25	2.69	2.79	—	13,635	13,635	0.54	0.25	0.19	13,688
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.03	2.15	6.28	35.6	0.05	0.13	1.50	1.64	0.13	0.37	0.50	—	6,696	6,696	0.24	0.14	1.79	6,747
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.19	0.39	1.15	6.49	0.01	0.02	0.27	0.30	0.02	0.07	0.09	—	1,109	1,109	0.04	0.02	0.30	1,117

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40	0.34	3.00	3.45	< 0.005	0.16	—	0.16	0.15	—	0.15	—	491	491	0.02	< 0.005	—	492
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.21	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.0	35.0	< 0.005	< 0.005	—	35.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.79	5.79	< 0.005	< 0.005	—	5.81
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.32	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	73.1	73.1	< 0.005	< 0.005	0.01	74.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.32	5.32	< 0.005	< 0.005	0.01	5.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.88	0.88	< 0.005	< 0.005	< 0.005	0.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Linear, Grubbing & Land Clearing (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.84	3.43	< 0.005	0.01	—	0.01	0.01	—	0.01	—	491	491	0.02	< 0.005	—	492
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.06	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.0	35.0	< 0.005	< 0.005	—	35.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.79	5.79	< 0.005	< 0.005	—	5.81
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.32	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	73.1	73.1	< 0.005	< 0.005	0.01	74.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.32	5.32	< 0.005	< 0.005	0.01	5.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.88	0.88	< 0.005	< 0.005	< 0.005	0.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Linear, Grading & Excavation (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.38	2.84	23.5	29.0	0.06	0.99	—	0.99	0.91	—	0.91	—	6,495	6,495	0.26	0.05	—	6,517

Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.38	2.84	23.5	29.0	0.06	0.99	—	0.99	0.91	—	0.91	—	6,495	6,495	0.26	0.05	—	6,517
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.08	0.91	7.53	9.29	0.02	0.32	—	0.32	0.29	—	0.29	—	2,082	2,082	0.08	0.02	—	2,089
Dust From Material Movement	—	—	—	—	—	—	1.02	1.02	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.17	1.37	1.70	< 0.005	0.06	—	0.06	0.05	—	0.05	—	345	345	0.01	< 0.005	—	346
Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.09	1.79	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	352	352	0.01	0.01	1.18	357
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.4	30.4	< 0.005	< 0.005	0.06	31.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.13	0.12	1.40	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	317	317	0.01	0.01	0.03	321
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.4	30.4	< 0.005	< 0.005	< 0.005	31.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.46	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	104	104	< 0.005	< 0.005	0.16	105
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.76	9.76	< 0.005	< 0.005	0.01	10.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.2	17.2	< 0.005	< 0.005	0.03	17.4
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.62	1.62	< 0.005	< 0.005	< 0.005	1.69
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Linear, Grading & Excavation (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.66	0.66	6.16	37.5	0.06	0.12	—	0.12	0.12	—	0.12	—	6,495	6,495	0.26	0.05	—	6,517
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.66	6.16	37.5	0.06	0.12	—	0.12	0.12	—	0.12	—	6,495	6,495	0.26	0.05	—	6,517
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.21	1.98	12.0	0.02	0.04	—	0.04	0.04	—	0.04	—	2,082	2,082	0.08	0.02	—	2,089
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.36	2.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	345	345	0.01	< 0.005	—	346
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.09	1.79	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	352	352	0.01	0.01	1.18	357
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.4	30.4	< 0.005	< 0.005	0.06	31.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.13	0.12	1.40	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	317	317	0.01	0.01	0.03	321
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.4	30.4	< 0.005	< 0.005	< 0.005	31.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.46	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	104	104	< 0.005	< 0.005	0.16	105
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.76	9.76	< 0.005	< 0.005	0.01	10.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.2	17.2	< 0.005	< 0.005	0.03	17.4
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.62	1.62	< 0.005	< 0.005	< 0.005	1.69
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Linear, Drainage, Utilities, & Sub-Grade (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.76	2.32	19.8	23.2	0.05	0.76	—	0.76	0.70	—	0.70	—	5,692	5,692	0.23	0.05	—	5,711
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.76	2.32	19.8	23.2	0.05	0.76	—	0.76	0.70	—	0.70	—	5,692	5,692	0.23	0.05	—	5,711
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59	0.49	4.23	4.96	0.01	0.16	—	0.16	0.15	—	0.15	—	1,216	1,216	0.05	0.01	—	1,220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.77	0.91	< 0.005	0.03	—	0.03	0.03	—	0.03	—	201	201	0.01	< 0.005	—	202
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.08	1.52	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	298	298	< 0.005	0.01	1.00	302
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.11	0.10	1.19	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	268	268	0.01	0.01	0.03	272
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.26	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	58.5	58.5	< 0.005	< 0.005	0.09	59.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.69	9.69	< 0.005	< 0.005	0.02	9.82
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Linear, Drainage, Utilities, & Sub-Grade (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.79	0.74	5.12	31.6	0.05	0.17	—	0.17	0.16	—	0.16	—	5,692	5,692	0.23	0.05	—	5,711
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.79	0.74	5.12	31.6	0.05	0.17	—	0.17	0.16	—	0.16	—	5,692	5,692	0.23	0.05	—	5,711
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.16	1.09	6.75	0.01	0.04	—	0.04	0.04	—	0.04	—	1,216	1,216	0.05	0.01	—	1,220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.20	1.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	201	201	0.01	< 0.005	—	202
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.08	1.52	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	298	298	< 0.005	0.01	1.00	302
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.11	0.10	1.19	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	268	268	0.01	0.01	0.03	272
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.26	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	58.5	58.5	< 0.005	< 0.005	0.09	59.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.69	9.69	< 0.005	< 0.005	0.02	9.82
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Linear, Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97	0.82	7.18	10.8	0.01	0.28	—	0.28	0.26	—	0.26	—	1,619	1,619	0.07	0.01	—	1,625
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.77	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	173	173	0.01	< 0.005	—	174
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.6	28.6	< 0.005	< 0.005	—	28.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.86	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	195	195	< 0.005	0.01	0.02	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.3	21.3	< 0.005	< 0.005	0.03	21.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.52	3.52	< 0.005	< 0.005	0.01	3.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Linear, Paving (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.18	0.18	2.58	11.3	0.01	0.03	—	0.03	0.03	—	0.03	—	1,619	1,619	0.07	0.01	—	1,625
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.28	1.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	173	173	0.01	< 0.005	—	174
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.05	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.6	28.6	< 0.005	< 0.005	—	28.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.86	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	195	195	< 0.005	0.01	0.02	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.3	21.3	< 0.005	< 0.005	0.03	21.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.52	3.52	< 0.005	< 0.005	0.01	3.57

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Site Preparation (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.63	3.05	28.0	28.3	0.05	1.17	—	1.17	1.08	—	1.08	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.54	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.38	0.38	—	0.19	0.19	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.10	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.76	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	171	171	< 0.005	0.01	0.02	173
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.34	3.34	< 0.005	< 0.005	0.01	3.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.55	0.55	< 0.005	< 0.005	< 0.005	0.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Site Preparation (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.76	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	171	171	< 0.005	0.01	0.02	173
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.34	3.34	< 0.005	< 0.005	0.01	3.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.55	0.55	< 0.005	< 0.005	< 0.005	0.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Grading (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.51	2.95	25.6	27.3	0.06	1.04	—	1.04	0.96	—	0.96	—	6,598	6,598	0.27	0.05	—	6,621

Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.40	1.49	< 0.005	0.06	—	0.06	0.05	—	0.05	—	362	362	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.26	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.9	59.9	< 0.005	< 0.005	—	60.1
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.86	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	195	195	< 0.005	0.01	0.02	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.9	10.9	< 0.005	< 0.005	0.02	11.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.81	1.81	< 0.005	< 0.005	< 0.005	1.83
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Grading (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	362	362	0.01	< 0.005	—	363

Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.9	59.9	< 0.005	< 0.005	—	60.1
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.86	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	195	195	< 0.005	0.01	0.02	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.9	10.9	< 0.005	< 0.005	0.02	11.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.81	1.81	< 0.005	< 0.005	< 0.005	1.83
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69	0.58	5.27	7.27	0.01	0.19	—	0.19	0.17	—	0.17	—	1,346	1,346	0.05	0.01	—	1,351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.96	1.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	223	223	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.53	0.35	6.72	0.00	0.00	1.23	1.23	0.00	0.29	0.29	—	1,317	1,317	0.02	0.05	4.40	1,336
Vendor	0.02	0.02	1.01	0.18	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.05	—	729	729	< 0.005	0.11	1.51	763
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.50	0.48	0.45	5.25	0.00	0.00	1.23	1.23	0.00	0.29	0.29	—	1,186	1,186	0.03	0.05	0.11	1,201
Vendor	0.02	0.02	1.07	0.19	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.05	—	729	729	< 0.005	0.11	0.04	762
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28	0.27	0.23	3.01	0.00	0.00	0.69	0.69	0.00	0.16	0.16	—	680	680	0.02	0.03	1.07	690
Vendor	0.01	0.01	0.59	0.11	< 0.005	< 0.005	0.10	0.10	< 0.005	0.03	0.03	—	409	409	< 0.005	0.06	0.37	428
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.55	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	113	113	< 0.005	< 0.005	0.18	114
Vendor	< 0.005	< 0.005	0.11	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	67.8	67.8	< 0.005	0.01	0.06	70.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.18	1.58	8.33	0.01	0.04	—	0.04	0.04	—	0.04	—	1,346	1,346	0.05	0.01	—	1,351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	1.52	< 0.005	0.01	—	0.01	0.01	—	0.01	—	223	223	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.53	0.35	6.72	0.00	0.00	1.23	1.23	0.00	0.29	0.29	—	1,317	1,317	0.02	0.05	4.40	1,336
Vendor	0.02	0.02	1.01	0.18	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.05	—	729	729	< 0.005	0.11	1.51	763
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.50	0.48	0.45	5.25	0.00	0.00	1.23	1.23	0.00	0.29	0.29	—	1,186	1,186	0.03	0.05	0.11	1,201

Vendor	0.02	0.02	1.07	0.19	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.05	—	729	729	< 0.005	0.11	0.04	762
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28	0.27	0.23	3.01	0.00	0.00	0.69	0.69	0.00	0.16	0.16	—	680	680	0.02	0.03	1.07	690
Vendor	0.01	0.01	0.59	0.11	< 0.005	< 0.005	0.10	0.10	< 0.005	0.03	0.03	—	409	409	< 0.005	0.06	0.37	428
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.55	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	113	113	< 0.005	< 0.005	0.18	114
Vendor	< 0.005	< 0.005	0.11	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	67.8	67.8	< 0.005	0.01	0.06	70.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03	0.03	0.27	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	58.0	58.0	< 0.005	< 0.005	—	58.2
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.65	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	146	146	< 0.005	0.01	0.01	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.73	5.73	< 0.005	< 0.005	0.01	5.81
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.95	0.95	< 0.005	< 0.005	< 0.005	0.96
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Paving (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.41	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	58.0	58.0	< 0.005	< 0.005	—	58.2
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.60	9.60	< 0.005	< 0.005	—	9.63
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.65	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	146	146	< 0.005	0.01	0.01	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.73	5.73	< 0.005	< 0.005	0.01	5.81
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.95	0.95	< 0.005	< 0.005	< 0.005	0.96
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	750	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.14
Architectural Coatings	—	28.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.85
Architectural Coatings	—	5.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	0.09	1.05	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	237	237	0.01	0.01	0.02	240
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.29	9.29	< 0.005	< 0.005	0.01	9.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.54	1.54	< 0.005	< 0.005	< 0.005	1.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Architectural Coating (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	30.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.14
Architectural Coatings	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.85
Architectural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	0.09	1.05	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	237	237	0.01	0.01	0.02	240
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.29	9.29	< 0.005	< 0.005	0.01	9.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.54	1.54	< 0.005	< 0.005	< 0.005	1.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	1/1/2027	2/7/2027	5.00	26.0	—
Linear, Grading & Excavation	Linear, Grading & Excavation	2/8/2027	7/20/2027	5.00	117	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	7/21/2027	11/6/2027	5.00	78.0	—
Linear, Paving	Linear, Paving	11/7/2027	12/30/2027	5.00	39.0	—
Site Preparation	Site Preparation	1/3/2027	1/12/2027	5.00	7.00	—
Grading	Grading	1/13/2027	2/9/2027	5.00	20.0	—
Building Construction	Building Construction	2/10/2027	11/23/2027	5.00	205	—

Paving	Paving	11/24/2027	12/13/2027	5.00	14.0	—
Architectural Coating	Architectural Coating	12/14/2027	12/31/2027	5.00	14.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20

Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Tier 4 Final	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Tier 4 Final	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Tier 4 Final	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37

Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Tier 4 Final	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Tier 4 Final	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Tier 4 Final	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41

Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT

Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	122	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	23.9	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	24.3	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	7.50	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	32.5	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT

Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	27.5	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	20.0	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	122	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	23.9	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT

Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	24.3	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	7.50	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	32.5	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	27.5	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—

Linear, Paving	Worker	20.0	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	679,064	226,355	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Linear, Grading & Excavation	—	—	0.50	0.00	—
Site Preparation	—	—	10.5	0.00	—
Grading	—	—	50.8	0.00	—
Paving	0.00	0.00	0.00	0.00	1.71

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Apartments Low Rise	—	0%
Single Family Housing	1.21	0%
Road Construction	0.50	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	117	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2

Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00

Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622

Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6

Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data.
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	Total 61.3 acres to be graded for vertical construction, and 0.5 for linear.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 4 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 4
Construction Start Date	1/1/2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	51.0	Dwelling Unit	5.90	54,060	0.00	—	130	—

Single Family Housing	110	Dwelling Unit	38.4	214,500	1,288,414	—	279	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.53	1.32	9.81	17.0	0.03	0.30	0.90	1.21	0.28	0.22	0.50	—	3,719	3,719	0.11	0.13	3.49	3,763
Mit.	0.69	0.66	3.70	18.9	0.03	0.08	0.90	0.98	0.07	0.22	0.29	—	3,719	3,719	0.11	0.13	3.49	3,763
% Reduced	55%	50%	62%	-11%	—	74%	—	19%	73%	—	41%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.68	560	27.5	29.1	0.06	1.14	19.8	21.0	1.05	10.1	11.2	—	6,789	6,789	0.27	0.13	0.09	6,815
Mit.	0.72	22.5	4.49	36.2	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,789	6,789	0.27	0.13	0.09	6,815
% Reduced	80%	96%	84%	-24%	—	89%	73%	74%	88%	74%	75%	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.15	24.0	7.71	11.7	0.02	0.26	1.46	1.72	0.24	0.55	0.78	—	2,594	2,594	0.09	0.08	0.87	2,620
Mit.	0.43	1.33	2.49	13.2	0.02	0.05	0.77	0.82	0.05	0.23	0.29	—	2,594	2,594	0.09	0.08	0.87	2,620
% Reduced	62%	94%	68%	-13%	—	79%	47%	52%	78%	57%	63%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.21	4.38	1.41	2.13	< 0.005	0.05	0.27	0.31	0.04	0.10	0.14	—	429	429	0.01	0.01	0.14	434
Mit.	0.08	0.24	0.45	2.40	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	—	429	429	0.01	0.01	0.14	434
% Reduced	62%	94%	68%	-13%	—	79%	47%	52%	78%	57%	63%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	1.53	1.32	9.81	17.0	0.03	0.30	0.90	1.21	0.28	0.22	0.50	—	3,719	3,719	0.11	0.13	3.49	3,763
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	3.68	560	27.5	29.1	0.06	1.14	19.8	21.0	1.05	10.1	11.2	—	6,789	6,789	0.27	0.13	0.09	6,815
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	1.15	24.0	7.71	11.7	0.02	0.26	1.46	1.72	0.24	0.55	0.78	—	2,594	2,594	0.09	0.08	0.87	2,620
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.21	4.38	1.41	2.13	< 0.005	0.05	0.27	0.31	0.04	0.10	0.14	—	429	429	0.01	0.01	0.14	434

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.69	0.66	3.70	18.9	0.03	0.08	0.90	0.98	0.07	0.22	0.29	—	3,719	3,719	0.11	0.13	3.49	3,763
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.72	22.5	4.49	36.2	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,789	6,789	0.27	0.13	0.09	6,815
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.43	1.33	2.49	13.2	0.02	0.05	0.77	0.82	0.05	0.23	0.29	—	2,594	2,594	0.09	0.08	0.87	2,620
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.08	0.24	0.45	2.40	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	—	429	429	0.01	0.01	0.14	434

3. Construction Emissions Details

3.1. Site Preparation (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.61	3.04	27.5	28.4	0.05	1.14	—	1.14	1.05	—	1.05	—	5,300	5,300	0.21	0.04	—	5,318
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.60	0.62	< 0.005	0.03	—	0.03	0.02	—	0.02	—	116	116	< 0.005	< 0.005	—	117
Dust From Material Movement	—	—	—	—	—	—	0.43	0.43	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.71	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	167	167	< 0.005	0.01	0.01	169

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.74	3.74	< 0.005	< 0.005	0.01	3.80
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.62	0.62	< 0.005	< 0.005	< 0.005	0.63
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,300	5,300	0.21	0.04	—	5,318
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	116	116	< 0.005	< 0.005	—	117
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.71	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	167	167	< 0.005	0.01	0.01	169
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.74	3.74	< 0.005	< 0.005	0.01	3.80
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.62	0.62	< 0.005	< 0.005	< 0.005	0.63
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.43	2.88	24.3	27.2	0.06	0.99	—	0.99	0.91	—	0.91	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.33	1.49	< 0.005	0.05	—	0.05	0.05	—	0.05	—	362	362	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.24	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.9	59.9	< 0.005	< 0.005	—	60.1
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.81	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	191	191	< 0.005	0.01	0.02	194
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.7	10.7	< 0.005	< 0.005	0.02	10.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.77	1.77	< 0.005	< 0.005	< 0.005	1.80
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	362	362	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.9	59.9	< 0.005	< 0.005	—	60.1

Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.81	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	191	191	< 0.005	0.01	0.02	194
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.7	10.7	< 0.005	< 0.005	0.02	10.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.77	1.77	< 0.005	< 0.005	< 0.005	1.80
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.55	4.94	7.16	0.01	0.17	—	0.17	0.15	—	0.15	—	1,327	1,327	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.90	1.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.33	0.32	0.20	3.96	0.00	0.00	0.77	0.77	0.00	0.18	0.18	—	810	810	0.01	0.03	2.51	822
Vendor	0.02	0.01	0.69	0.13	< 0.005	< 0.005	0.13	0.13	< 0.005	0.04	0.04	—	512	512	< 0.005	0.08	0.98	536
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.30	0.27	0.26	3.09	0.00	0.00	0.77	0.77	0.00	0.18	0.18	—	729	729	0.02	0.03	0.07	739
Vendor	0.02	0.01	0.72	0.13	< 0.005	< 0.005	0.13	0.13	< 0.005	0.04	0.04	—	512	512	< 0.005	0.08	0.03	535
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.12	1.75	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	412	412	0.01	0.02	0.60	418
Vendor	0.01	0.01	0.40	0.07	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	283	283	< 0.005	0.04	0.23	296
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.32	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	68.3	68.3	< 0.005	< 0.005	0.10	69.2
Vendor	< 0.005	< 0.005	0.07	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	46.9	46.9	< 0.005	0.01	0.04	49.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.18	1.56	8.20	0.01	0.04	—	0.04	0.04	—	0.04	—	1,327	1,327	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	1.50	< 0.005	0.01	—	0.01	0.01	—	0.01	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.33	0.32	0.20	3.96	0.00	0.00	0.77	0.77	0.00	0.18	0.18	—	810	810	0.01	0.03	2.51	822
Vendor	0.02	0.01	0.69	0.13	< 0.005	< 0.005	0.13	0.13	< 0.005	0.04	0.04	—	512	512	< 0.005	0.08	0.98	536
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.30	0.27	0.26	3.09	0.00	0.00	0.77	0.77	0.00	0.18	0.18	—	729	729	0.02	0.03	0.07	739
Vendor	0.02	0.01	0.72	0.13	< 0.005	< 0.005	0.13	0.13	< 0.005	0.04	0.04	—	512	512	< 0.005	0.08	0.03	535
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.12	1.75	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	412	412	0.01	0.02	0.60	418
Vendor	0.01	0.01	0.40	0.07	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	283	283	< 0.005	0.04	0.23	296

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.32	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	68.3	68.3	< 0.005	< 0.005	0.10	69.2
Vendor	< 0.005	< 0.005	0.07	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	46.9	46.9	< 0.005	0.01	0.04	49.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.69	6.63	9.91	0.01	0.26	—	0.26	0.24	—	0.24	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.27	0.41	< 0.005	0.01	—	0.01	0.01	—	0.01	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3

Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.61	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	143	143	< 0.005	0.01	0.01	145
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.02	6.02	< 0.005	< 0.005	0.01	6.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.61	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	143	143	< 0.005	0.01	0.01	145
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.02	6.02	< 0.005	< 0.005	0.01	6.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	560	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	23.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	4.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.62	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	146	146	< 0.005	0.01	0.01	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.12	6.12	< 0.005	< 0.005	0.01	6.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.01	1.01	< 0.005	< 0.005	< 0.005	1.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2028) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	22.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	0.92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.62	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	146	146	< 0.005	0.01	0.01	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.12	6.12	< 0.005	< 0.005	0.01	6.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.01	1.01	< 0.005	< 0.005	< 0.005	1.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2028	1/12/2028	5.00	8.00	—
Grading	Grading	1/13/2028	2/9/2028	5.00	20.0	—
Building Construction	Building Construction	2/10/2028	11/17/2028	5.00	202	—
Paving	Paving	11/18/2028	12/8/2028	5.00	15.0	—
Architectural Coating	Architectural Coating	12/9/2028	12/30/2028	5.00	15.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45

Building Construction	Tractors/Loaders/Backh	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	76.3	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	17.2	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2

Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	15.3	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	76.3	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	17.2	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—

Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	15.3	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	543,834	181,278	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	12.0	0.00	—
Grading	—	—	32.3	0.00	—
Paving	0.00	0.00	0.00	0.00	1.21

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Single Family Housing	1.21	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2028	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2

Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00

Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622

Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6

Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data.
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	Total 44.3 acres to be graded for vertical construction.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 5 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 5
Construction Start Date	1/1/2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	51.0	Dwelling Unit	5.90	54,060	0.00	—	130	—

Single Family Housing	110	Dwelling Unit	38.4	214,500	1,288,414	—	279	—
Strip Mall	33.3	1000sqft	5.30	33,334	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.53	1.31	9.62	17.3	0.03	0.28	1.05	1.33	0.26	0.25	0.51	—	3,959	3,959	0.11	0.15	3.73	4,011
Mit.	0.73	0.67	3.85	19.2	0.03	0.08	1.05	1.13	0.08	0.25	0.33	—	3,959	3,959	0.11	0.15	3.73	4,011
% Reduced	52%	49%	60%	-11%	—	72%	—	15%	71%	—	36%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.60	612	26.0	28.7	0.06	1.09	19.8	20.9	1.00	10.1	11.1	—	6,784	6,784	0.27	0.15	0.10	6,809
Mit.	0.72	24.6	4.49	36.1	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,784	6,784	0.27	0.15	0.10	6,809
% Reduced	80%	96%	83%	-26%	—	89%	73%	74%	88%	74%	75%	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.14	26.1	7.50	11.7	0.02	0.24	1.54	1.78	0.22	0.57	0.79	—	2,723	2,723	0.09	0.09	0.93	2,753
Mit.	0.45	1.42	2.60	13.3	0.02	0.05	0.85	0.90	0.05	0.25	0.31	—	2,723	2,723	0.09	0.09	0.93	2,753
% Reduced	60%	95%	65%	-13%	—	78%	45%	49%	76%	55%	61%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.21	4.77	1.37	2.14	< 0.005	0.04	0.28	0.32	0.04	0.10	0.14	—	451	451	0.01	0.01	0.15	456
Mit.	0.08	0.26	0.47	2.43	< 0.005	0.01	0.15	0.16	0.01	0.05	0.06	—	451	451	0.01	0.01	0.15	456
% Reduced	60%	95%	65%	-13%	—	78%	45%	49%	76%	55%	61%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	1.53	1.31	9.62	17.3	0.03	0.28	1.05	1.33	0.26	0.25	0.51	—	3,959	3,959	0.11	0.15	3.73	4,011
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	3.60	612	26.0	28.7	0.06	1.09	19.8	20.9	1.00	10.1	11.1	—	6,784	6,784	0.27	0.15	0.10	6,809
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	1.14	26.1	7.50	11.7	0.02	0.24	1.54	1.78	0.22	0.57	0.79	—	2,723	2,723	0.09	0.09	0.93	2,753
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	0.21	4.77	1.37	2.14	< 0.005	0.04	0.28	0.32	0.04	0.10	0.14	—	451	451	0.01	0.01	0.15	456

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	0.73	0.67	3.85	19.2	0.03	0.08	1.05	1.13	0.08	0.25	0.33	—	3,959	3,959	0.11	0.15	3.73	4,011
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	0.72	24.6	4.49	36.1	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,784	6,784	0.27	0.15	0.10	6,809
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	0.45	1.42	2.60	13.3	0.02	0.05	0.85	0.90	0.05	0.25	0.31	—	2,723	2,723	0.09	0.09	0.93	2,753
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	0.08	0.26	0.47	2.43	< 0.005	0.01	0.15	0.16	0.01	0.05	0.06	—	451	451	0.01	0.01	0.15	456

3. Construction Emissions Details

3.1. Site Preparation (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.53	2.97	25.9	28.1	0.05	1.09	—	1.09	1.00	—	1.00	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.57	0.62	< 0.005	0.02	—	0.02	0.02	—	0.02	—	116	116	< 0.005	< 0.005	—	116
Dust From Material Movement	—	—	—	—	—	—	0.43	0.43	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.66	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	164	164	< 0.005	0.01	0.01	167

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.68	3.68	< 0.005	< 0.005	< 0.005	3.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.61	0.61	< 0.005	< 0.005	< 0.005	0.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	116	116	< 0.005	< 0.005	—	116
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.66	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	164	164	< 0.005	0.01	0.01	167
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.68	3.68	< 0.005	< 0.005	< 0.005	3.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.61	0.61	< 0.005	< 0.005	< 0.005	0.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.32	2.79	22.7	26.9	0.06	0.92	—	0.92	0.84	—	0.84	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.25	1.47	< 0.005	0.05	—	0.05	0.05	—	0.05	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.23	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.76	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	188	188	< 0.005	0.01	0.02	190
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.5	10.5	< 0.005	< 0.005	0.01	10.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.74	1.74	< 0.005	< 0.005	< 0.005	1.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0

Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	0.76	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	188	188	< 0.005	0.01	0.02	190
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.5	10.5	< 0.005	< 0.005	0.01	10.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.74	1.74	< 0.005	< 0.005	< 0.005	1.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.15	0.97	8.58	12.9	0.02	0.28	—	0.28	0.25	—	0.25	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.53	4.75	7.14	0.01	0.15	—	0.15	0.14	—	0.14	—	1,326	1,326	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.87	1.30	< 0.005	0.03	—	0.03	0.03	—	0.03	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.33	0.19	4.23	0.00	0.00	0.88	0.88	0.00	0.21	0.21	—	908	908	0.01	0.03	2.58	921
Vendor	0.02	0.02	0.85	0.16	< 0.005	< 0.005	0.17	0.18	< 0.005	0.05	0.05	—	655	655	< 0.005	0.10	1.15	686
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.33	0.29	0.26	3.30	0.00	0.00	0.88	0.88	0.00	0.21	0.21	—	817	817	0.02	0.04	0.07	828
Vendor	0.02	0.02	0.89	0.17	< 0.005	< 0.005	0.17	0.18	< 0.005	0.05	0.05	—	655	655	< 0.005	0.10	0.03	685
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.14	1.86	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	462	462	0.01	0.02	0.62	468
Vendor	0.01	0.01	0.49	0.09	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	362	362	< 0.005	0.06	0.28	379
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.34	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	76.5	76.5	< 0.005	< 0.005	0.10	77.6
Vendor	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	60.0	60.0	< 0.005	0.01	0.05	62.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.18	1.56	8.20	0.01	0.04	—	0.04	0.04	—	0.04	—	1,326	1,326	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	1.50	< 0.005	0.01	—	0.01	0.01	—	0.01	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.33	0.19	4.23	0.00	0.00	0.88	0.88	0.00	0.21	0.21	—	908	908	0.01	0.03	2.58	921
Vendor	0.02	0.02	0.85	0.16	< 0.005	< 0.005	0.17	0.18	< 0.005	0.05	0.05	—	655	655	< 0.005	0.10	1.15	686
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.33	0.29	0.26	3.30	0.00	0.00	0.88	0.88	0.00	0.21	0.21	—	817	817	0.02	0.04	0.07	828
Vendor	0.02	0.02	0.89	0.17	< 0.005	< 0.005	0.17	0.18	< 0.005	0.05	0.05	—	655	655	< 0.005	0.10	0.03	685
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.14	1.86	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	462	462	0.01	0.02	0.62	468
Vendor	0.01	0.01	0.49	0.09	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	362	362	< 0.005	0.06	0.28	379

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.34	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	76.5	76.5	< 0.005	< 0.005	0.10	77.6
Vendor	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	60.0	60.0	< 0.005	0.01	0.05	62.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	6.46	9.92	0.01	0.24	—	0.24	0.22	—	0.22	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.27	0.41	< 0.005	0.01	—	0.01	0.01	—	0.01	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3

Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.57	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	141	141	< 0.005	0.01	0.01	143
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.92	5.92	< 0.005	< 0.005	0.01	6.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.98	0.98	< 0.005	< 0.005	< 0.005	0.99
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.57	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	141	141	< 0.005	0.01	0.01	143
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.92	5.92	< 0.005	< 0.005	0.01	6.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.98	0.98	< 0.005	< 0.005	< 0.005	0.99
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.79	1.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	612	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	25.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	4.59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.66	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	163	163	< 0.005	0.01	0.01	166
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.86	6.86	< 0.005	< 0.005	0.01	6.96
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.14	1.14	< 0.005	< 0.005	< 0.005	1.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	24.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	1.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.66	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	163	163	< 0.005	0.01	0.01	166
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.86	6.86	< 0.005	< 0.005	0.01	6.96
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.14	1.14	< 0.005	< 0.005	< 0.005	1.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2029	1/10/2029	5.00	8.00	—
Grading	Grading	1/11/2029	2/7/2029	5.00	20.0	—
Building Construction	Building Construction	2/8/2029	11/18/2029	5.00	202	—
Paving	Paving	11/19/2029	12/9/2029	5.00	15.0	—
Architectural Coating	Architectural Coating	12/10/2029	12/30/2029	5.00	15.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45

Building Construction	Tractors/Loaders/Backh	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	87.0	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	22.7	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2

Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.4	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	87.0	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	22.7	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—

Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.4	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	543,834	181,278	50,001	16,667	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	12.0	0.00	—
Grading	—	—	37.7	0.00	—
Paving	0.00	0.00	0.00	0.00	1.21

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Single Family Housing	1.21	0%
Strip Mall	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2029	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00

Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—

2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0

Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data.
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	Total 49.7 acres to be graded for vertical construction.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 6 Detailed Report

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5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 6
Construction Start Date	1/1/2030
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	51.0	Dwelling Unit	5.90	54,060	0.00	—	130	—

Single Family Housing	110	Dwelling Unit	38.4	214,500	1,288,414	—	279	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.44	1.23	9.16	16.5	0.03	0.26	0.90	1.16	0.24	0.22	0.46	—	3,661	3,661	0.11	0.10	2.82	3,695
Mit.	0.66	0.61	3.58	18.4	0.03	0.08	0.90	0.98	0.07	0.22	0.29	—	3,661	3,661	0.11	0.10	2.82	3,695
% Reduced	54%	50%	61%	-12%	—	71%	—	16%	69%	—	37%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.54	560	25.3	29.1	0.06	1.07	19.8	20.9	0.98	10.1	11.1	—	6,781	6,781	0.27	0.12	0.07	6,806
Mit.	0.71	22.5	4.48	36.1	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,781	6,781	0.27	0.12	0.07	6,806
% Reduced	80%	96%	82%	-24%	—	88%	73%	74%	87%	74%	75%	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.08	23.9	7.14	11.4	0.02	0.23	1.46	1.69	0.21	0.55	0.76	—	2,562	2,562	0.08	0.07	0.70	2,587
Mit.	0.42	1.31	2.43	12.9	0.02	0.05	0.77	0.82	0.05	0.23	0.29	—	2,562	2,562	0.08	0.07	0.70	2,587
% Reduced	61%	95%	66%	-14%	—	77%	47%	51%	75%	57%	62%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.20	4.37	1.30	2.08	< 0.005	0.04	0.27	0.31	0.04	0.10	0.14	—	424	424	0.01	0.01	0.12	428
Mit.	0.08	0.24	0.44	2.36	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	—	424	424	0.01	0.01	0.12	428
% Reduced	61%	95%	66%	-14%	—	77%	47%	51%	75%	57%	62%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	1.44	1.23	9.16	16.5	0.03	0.26	0.90	1.16	0.24	0.22	0.46	—	3,661	3,661	0.11	0.10	2.82	3,695
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	3.54	560	25.3	29.1	0.06	1.07	19.8	20.9	0.98	10.1	11.1	—	6,781	6,781	0.27	0.12	0.07	6,806
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	1.08	23.9	7.14	11.4	0.02	0.23	1.46	1.69	0.21	0.55	0.76	—	2,562	2,562	0.08	0.07	0.70	2,587
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	0.20	4.37	1.30	2.08	< 0.005	0.04	0.27	0.31	0.04	0.10	0.14	—	424	424	0.01	0.01	0.12	428

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	0.66	0.61	3.58	18.4	0.03	0.08	0.90	0.98	0.07	0.22	0.29	—	3,661	3,661	0.11	0.10	2.82	3,695
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	0.71	22.5	4.48	36.1	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,781	6,781	0.27	0.12	0.07	6,806
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	0.42	1.31	2.43	12.9	0.02	0.05	0.77	0.82	0.05	0.23	0.29	—	2,562	2,562	0.08	0.07	0.70	2,587
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2030	0.08	0.24	0.44	2.36	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	—	424	424	0.01	0.01	0.12	428

3. Construction Emissions Details

3.1. Site Preparation (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.47	2.92	25.2	28.4	0.05	1.07	—	1.07	0.98	—	0.98	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.55	0.62	< 0.005	0.02	—	0.02	0.02	—	0.02	—	116	116	< 0.005	< 0.005	—	116
Dust From Material Movement	—	—	—	—	—	—	0.43	0.43	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.62	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	162	162	< 0.005	0.01	0.01	164

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.62	3.62	< 0.005	< 0.005	< 0.005	3.67
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.60	0.60	< 0.005	< 0.005	< 0.005	0.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	116	116	< 0.005	< 0.005	—	116
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.62	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	162	162	< 0.005	0.01	0.01	164
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.62	3.62	< 0.005	< 0.005	< 0.005	3.67
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.60	0.60	< 0.005	< 0.005	< 0.005	0.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.23	2.72	21.7	26.9	0.06	0.88	—	0.88	0.81	—	0.81	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.19	1.47	< 0.005	0.05	—	0.05	0.04	—	0.04	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.22	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.71	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	185	185	< 0.005	0.01	0.01	187
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.4	10.4	< 0.005	< 0.005	0.01	10.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.71	1.71	< 0.005	< 0.005	< 0.005	1.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0

Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.71	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	185	185	< 0.005	0.01	0.01	187
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.4	10.4	< 0.005	< 0.005	0.01	10.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.71	1.71	< 0.005	< 0.005	< 0.005	1.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.12	0.94	8.39	12.9	0.02	0.26	—	0.26	0.24	—	0.24	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.12	0.94	8.39	12.9	0.02	0.26	—	0.26	0.24	—	0.24	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	0.52	4.64	7.13	0.01	0.14	—	0.14	0.13	—	0.13	—	1,326	1,326	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.85	1.30	< 0.005	0.03	—	0.03	0.02	—	0.02	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.30	0.27	0.17	3.46	0.00	0.00	0.77	0.77	0.00	0.18	0.18	—	784	784	0.01	0.01	2.04	787
Vendor	0.01	0.01	0.60	0.12	< 0.005	< 0.005	0.13	0.13	< 0.005	0.04	0.04	—	481	481	< 0.005	0.07	0.78	503
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28	0.25	0.20	2.72	0.00	0.00	0.77	0.77	0.00	0.18	0.18	—	706	706	0.02	0.03	0.05	715
Vendor	0.01	0.01	0.64	0.13	< 0.005	< 0.005	0.13	0.13	< 0.005	0.04	0.04	—	481	481	< 0.005	0.07	0.02	502
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.11	1.53	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	399	399	0.01	0.02	0.49	404
Vendor	0.01	0.01	0.35	0.07	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	266	266	< 0.005	0.04	0.19	278
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.28	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	66.0	66.0	< 0.005	< 0.005	0.08	67.0
Vendor	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.0	44.0	< 0.005	0.01	0.03	46.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.18	1.56	8.20	0.01	0.04	—	0.04	0.04	—	0.04	—	1,326	1,326	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	1.50	< 0.005	0.01	—	0.01	0.01	—	0.01	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.30	0.27	0.17	3.46	0.00	0.00	0.77	0.77	0.00	0.18	0.18	—	784	784	0.01	0.01	2.04	787
Vendor	0.01	0.01	0.60	0.12	< 0.005	< 0.005	0.13	0.13	< 0.005	0.04	0.04	—	481	481	< 0.005	0.07	0.78	503
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28	0.25	0.20	2.72	0.00	0.00	0.77	0.77	0.00	0.18	0.18	—	706	706	0.02	0.03	0.05	715
Vendor	0.01	0.01	0.64	0.13	< 0.005	< 0.005	0.13	0.13	< 0.005	0.04	0.04	—	481	481	< 0.005	0.07	0.02	502
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.11	1.53	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	399	399	0.01	0.02	0.49	404
Vendor	0.01	0.01	0.35	0.07	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	266	266	< 0.005	0.04	0.19	278

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.28	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	66.0	66.0	< 0.005	< 0.005	0.08	67.0
Vendor	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.0	44.0	< 0.005	0.01	0.03	46.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77	0.64	6.28	9.90	0.01	0.22	—	0.22	0.20	—	0.20	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.26	0.41	< 0.005	0.01	—	0.01	0.01	—	0.01	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3

Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.53	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	139	139	< 0.005	0.01	0.01	141
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.82	5.82	< 0.005	< 0.005	0.01	5.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.96	0.96	< 0.005	< 0.005	< 0.005	0.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.53	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	139	139	< 0.005	0.01	0.01	141
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.82	5.82	< 0.005	< 0.005	0.01	5.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.96	0.96	< 0.005	< 0.005	< 0.005	0.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.78	1.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	560	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	23.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	4.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.54	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	141	141	< 0.005	0.01	0.01	143
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.92	5.92	< 0.005	< 0.005	0.01	6.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.98	0.98	< 0.005	< 0.005	< 0.005	0.99
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	22.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	0.92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.54	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	141	141	< 0.005	0.01	0.01	143
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.92	5.92	< 0.005	< 0.005	0.01	6.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.98	0.98	< 0.005	< 0.005	< 0.005	0.99
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2030	1/10/2030	5.00	8.00	—
Grading	Grading	1/11/2030	2/7/2030	5.00	20.0	—
Building Construction	Building Construction	2/8/2030	11/18/2030	5.00	202	—
Paving	Paving	11/19/2030	12/9/2030	5.00	15.0	—
Architectural Coating	Architectural Coating	12/10/2030	12/30/2030	5.00	15.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45

Building Construction	Tractors/Loaders/Backh	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	76.3	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	17.2	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2

Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	15.3	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	76.3	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	17.2	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—

Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	15.3	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	543,834	181,278	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	12.0	0.00	—
Grading	—	—	32.3	0.00	—
Paving	0.00	0.00	0.00	0.00	1.21

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Single Family Housing	1.21	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2030	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2

Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00

Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622

Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6

Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data.
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	Total 44.3 acres to be graded for vertical construction.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 7 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 7
Construction Start Date	1/1/2031
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	51.0	Dwelling Unit	5.90	54,060	0.00	—	130	—

Apartments Low Rise	76.0	Dwelling Unit	3.90	80,560	0.00	—	193	—
Single Family Housing	110	Dwelling Unit	38.4	214,500	1,288,414	—	279	—
City Park	6.50	Acre	6.50	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.61	1.38	9.19	18.6	0.03	0.25	1.52	1.76	0.23	0.36	0.59	—	4,403	4,403	0.12	0.13	4.15	4,449
Mit.	0.86	0.79	3.88	20.6	0.03	0.08	1.52	1.59	0.08	0.36	0.44	—	4,403	4,403	0.12	0.13	4.15	4,449
% Reduced	47%	43%	58%	-11%	—	68%	—	10%	67%	—	26%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.47	781	24.3	28.5	0.06	1.04	19.8	20.9	0.96	10.1	11.1	—	6,778	6,778	0.27	0.17	0.11	6,803
Mit.	0.82	31.3	4.48	36.0	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,778	6,778	0.27	0.17	0.11	6,803

% Reduced	76%	96%	82%	-26%	—	88%	73%	74%	87%	74%	75%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.17	30.9	7.08	12.3	0.02	0.21	1.76	1.97	0.20	0.60	0.80	—	2,968	2,968	0.09	0.10	1.04	3,001
Mit.	0.53	1.68	2.63	14.0	0.02	0.05	1.11	1.16	0.05	0.31	0.36	—	2,968	2,968	0.09	0.10	1.04	3,001
% Reduced	55%	95%	63%	-13%	—	75%	37%	41%	73%	48%	55%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.21	5.64	1.29	2.25	< 0.005	0.04	0.32	0.36	0.04	0.11	0.15	—	491	491	0.01	0.02	0.17	497
Mit.	0.10	0.31	0.48	2.55	< 0.005	0.01	0.20	0.21	0.01	0.06	0.07	—	491	491	0.01	0.02	0.17	497
% Reduced	55%	95%	63%	-13%	—	75%	37%	41%	73%	48%	55%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	1.61	1.38	9.19	18.6	0.03	0.25	1.52	1.76	0.23	0.36	0.59	—	4,403	4,403	0.12	0.13	4.15	4,449
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	3.47	781	24.3	28.5	0.06	1.04	19.8	20.9	0.96	10.1	11.1	—	6,778	6,778	0.27	0.17	0.11	6,803
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	1.17	30.9	7.08	12.3	0.02	0.21	1.76	1.97	0.20	0.60	0.80	—	2,968	2,968	0.09	0.10	1.04	3,001
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2031	0.21	5.64	1.29	2.25	< 0.005	0.04	0.32	0.36	0.04	0.11	0.15	—	491	491	0.01	0.02	0.17	497

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	0.86	0.79	3.88	20.6	0.03	0.08	1.52	1.59	0.08	0.36	0.44	—	4,403	4,403	0.12	0.13	4.15	4,449
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	0.82	31.3	4.48	36.0	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,778	6,778	0.27	0.17	0.11	6,803
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	0.53	1.68	2.63	14.0	0.02	0.05	1.11	1.16	0.05	0.31	0.36	—	2,968	2,968	0.09	0.10	1.04	3,001
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2031	0.10	0.31	0.48	2.55	< 0.005	0.01	0.20	0.21	0.01	0.06	0.07	—	491	491	0.01	0.02	0.17	497

3. Construction Emissions Details

3.1. Site Preparation (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.41	2.87	24.3	27.9	0.05	1.04	—	1.04	0.96	—	0.96	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.47	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.38	0.38	—	0.19	0.19	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.58	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	159	159	< 0.005	0.01	0.01	162
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.12	3.12	< 0.005	< 0.005	< 0.005	3.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.52	0.52	< 0.005	< 0.005	< 0.005	0.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	0.21	0.04	—	5,314

Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.58	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	159	159	< 0.005	0.01	0.01	162
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.12	3.12	< 0.005	< 0.005	< 0.005	3.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.52	0.52	< 0.005	< 0.005	< 0.005	0.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.17	2.66	20.6	26.6	0.06	0.86	—	0.86	0.79	—	0.79	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.15	1.13	1.46	< 0.005	0.05	—	0.05	0.04	—	0.04	—	361	361	0.01	< 0.005	—	363

Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.21	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.67	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	182	182	< 0.005	0.01	0.01	185
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.01	10.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.69	1.69	< 0.005	< 0.005	< 0.005	1.71
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0

Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.67	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	182	182	< 0.005	0.01	0.01	185
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.01	10.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.69	1.69	< 0.005	< 0.005	< 0.005	1.71
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.10	0.92	8.12	12.8	0.02	0.24	—	0.24	0.22	—	0.22	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.10	0.92	8.12	12.8	0.02	0.24	—	0.24	0.22	—	0.22	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	0.52	4.56	7.21	0.01	0.14	—	0.14	0.13	—	0.13	—	1,346	1,346	0.05	0.01	—	1,351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.83	1.32	< 0.005	0.02	—	0.02	0.02	—	0.02	—	223	223	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.49	0.44	0.24	5.60	0.00	0.00	1.32	1.32	0.00	0.31	0.31	—	1,325	1,325	0.02	0.01	3.13	1,331
Vendor	0.02	0.02	0.83	0.17	< 0.005	< 0.005	0.19	0.20	< 0.005	0.05	0.06	—	682	682	< 0.005	0.10	1.02	713
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.46	0.41	0.34	4.36	0.00	0.00	1.32	1.32	0.00	0.31	0.31	—	1,193	1,193	0.02	0.05	0.08	1,210
Vendor	0.02	0.02	0.88	0.18	< 0.005	< 0.005	0.19	0.20	< 0.005	0.05	0.06	—	682	682	< 0.005	0.10	0.03	712
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.23	0.16	2.50	0.00	0.00	0.74	0.74	0.00	0.17	0.17	—	685	685	0.01	0.03	0.76	694
Vendor	0.01	0.01	0.49	0.10	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03	—	383	383	< 0.005	0.06	0.25	400
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.46	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	113	113	< 0.005	< 0.005	0.13	115
Vendor	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	63.4	63.4	< 0.005	0.01	0.04	66.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.18	1.58	8.32	0.01	0.04	—	0.04	0.04	—	0.04	—	1,346	1,346	0.05	0.01	—	1,351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	1.52	< 0.005	0.01	—	0.01	0.01	—	0.01	—	223	223	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.49	0.44	0.24	5.60	0.00	0.00	1.32	1.32	0.00	0.31	0.31	—	1,325	1,325	0.02	0.01	3.13	1,331
Vendor	0.02	0.02	0.83	0.17	< 0.005	< 0.005	0.19	0.20	< 0.005	0.05	0.06	—	682	682	< 0.005	0.10	1.02	713
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.46	0.41	0.34	4.36	0.00	0.00	1.32	1.32	0.00	0.31	0.31	—	1,193	1,193	0.02	0.05	0.08	1,210
Vendor	0.02	0.02	0.88	0.18	< 0.005	< 0.005	0.19	0.20	< 0.005	0.05	0.06	—	682	682	< 0.005	0.10	0.03	712
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.23	0.16	2.50	0.00	0.00	0.74	0.74	0.00	0.17	0.17	—	685	685	0.01	0.03	0.76	694
Vendor	0.01	0.01	0.49	0.10	< 0.005	< 0.005	0.11	0.11	< 0.005	0.03	0.03	—	383	383	< 0.005	0.06	0.25	400

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.46	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	113	113	< 0.005	< 0.005	0.13	115
Vendor	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	63.4	63.4	< 0.005	0.01	0.04	66.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.75	0.63	6.13	9.88	0.01	0.21	—	0.21	0.19	—	0.19	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.23	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	57.9	57.9	< 0.005	< 0.005	—	58.1
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.59	9.59	< 0.005	< 0.005	—	9.63

Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.50	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	137	137	< 0.005	0.01	0.01	138
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.35	5.35	< 0.005	< 0.005	0.01	5.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.89	0.89	< 0.005	< 0.005	< 0.005	0.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.41	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	57.9	57.9	< 0.005	< 0.005	—	58.1
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.59	9.59	< 0.005	< 0.005	—	9.63
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.50	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	137	137	< 0.005	0.01	0.01	138
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.35	5.35	< 0.005	< 0.005	0.01	5.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.89	0.89	< 0.005	< 0.005	< 0.005	0.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.78	1.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	780	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.14
Architectural Coatings	—	29.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.85
Architectural Coatings	—	5.46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.87	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	239	239	< 0.005	0.01	0.02	242
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.35	9.35	< 0.005	< 0.005	0.01	9.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.55	1.55	< 0.005	< 0.005	< 0.005	1.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	31.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.14
Architectural Coatings	—	1.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.85
Architectural Coatings	—	0.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.87	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	239	239	< 0.005	0.01	0.02	242
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.35	9.35	< 0.005	< 0.005	0.01	9.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.55	1.55	< 0.005	< 0.005	< 0.005	1.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2031	1/9/2031	5.00	7.00	—
Grading	Grading	1/12/2031	2/9/2031	5.00	20.0	—
Building Construction	Building Construction	2/10/2031	11/21/2031	5.00	205	—
Paving	Paving	11/22/2031	12/11/2031	5.00	14.0	—
Architectural Coating	Architectural Coating	12/12/2031	12/31/2031	5.00	14.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45

Building Construction	Tractors/Loaders/Backh	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	131	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	25.3	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2

Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	26.2	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	131	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	25.3	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—

Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	26.2	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	706,968	235,656	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	10.5	0.00	—
Grading	—	—	44.2	0.00	—
Paving	0.00	0.00	0.00	0.00	1.21

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Apartments Low Rise	—	0%
Single Family Housing	1.21	0%
City Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2031	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8

Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974

Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0

Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4

Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	A total of 54.7 acres to be graded for vertical construction.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 8 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 8
Construction Start Date	1/1/2032
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	51.0	Dwelling Unit	5.90	54,060	0.00	—	130	—

Apartments Low Rise	76.0	Dwelling Unit	3.90	80,560	0.00	—	193	—
Single Family Housing	110	Dwelling Unit	38.4	214,500	1,288,414	—	279	—
General Office Building	41.7	1000sqft	4.60	41,667	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.57	1.38	9.11	18.8	0.03	0.23	1.70	1.93	0.21	0.41	0.62	—	4,668	4,668	0.12	0.15	4.22	4,720
Mit.	0.85	0.82	4.05	20.8	0.03	0.08	1.70	1.78	0.08	0.41	0.48	—	4,668	4,668	0.12	0.15	4.22	4,720
% Reduced	46%	41%	56%	-11%	—	66%	—	8%	64%	—	22%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.27	850	22.3	26.4	0.06	0.93	19.8	20.8	0.85	10.1	11.0	—	6,776	6,776	0.27	0.20	0.11	6,801

Mit.	0.82	34.1	4.47	36.0	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,776	6,776	0.27	0.20	0.11	6,801
% Reduced	75%	96%	80%	-36%	—	87%	73%	74%	85%	74%	75%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.13	33.6	6.93	12.3	0.02	0.20	1.86	2.06	0.18	0.63	0.81	—	3,112	3,112	0.09	0.09	1.05	3,142
Mit.	0.52	1.80	2.73	14.1	0.02	0.05	1.21	1.26	0.05	0.34	0.39	—	3,112	3,112	0.09	0.09	1.05	3,142
% Reduced	54%	95%	61%	-14%	—	73%	35%	39%	71%	46%	52%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.21	6.13	1.27	2.25	< 0.005	0.04	0.34	0.38	0.03	0.11	0.15	—	515	515	0.01	0.01	0.17	520
Mit.	0.09	0.33	0.50	2.57	< 0.005	0.01	0.22	0.23	0.01	0.06	0.07	—	515	515	0.01	0.01	0.17	520
% Reduced	54%	95%	61%	-14%	—	73%	35%	39%	71%	46%	52%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	1.57	1.38	9.11	18.8	0.03	0.23	1.70	1.93	0.21	0.41	0.62	—	4,668	4,668	0.12	0.15	4.22	4,720
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	3.27	850	22.3	26.4	0.06	0.93	19.8	20.8	0.85	10.1	11.0	—	6,776	6,776	0.27	0.20	0.11	6,801
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	1.13	33.6	6.93	12.3	0.02	0.20	1.86	2.06	0.18	0.63	0.81	—	3,112	3,112	0.09	0.09	1.05	3,142

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.21	6.13	1.27	2.25	< 0.005	0.04	0.34	0.38	0.03	0.11	0.15	—	515	515	0.01	0.01	0.17	520

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.85	0.82	4.05	20.8	0.03	0.08	1.70	1.78	0.08	0.41	0.48	—	4,668	4,668	0.12	0.15	4.22	4,720
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.82	34.1	4.47	36.0	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,776	6,776	0.27	0.20	0.11	6,801
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.52	1.80	2.73	14.1	0.02	0.05	1.21	1.26	0.05	0.34	0.39	—	3,112	3,112	0.09	0.09	1.05	3,142
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.09	0.33	0.50	2.57	< 0.005	0.01	0.22	0.23	0.01	0.06	0.07	—	515	515	0.01	0.01	0.17	520

3. Construction Emissions Details

3.1. Site Preparation (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.22	2.70	22.3	25.7	0.05	0.93	—	0.93	0.85	—	0.85	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.43	0.49	< 0.005	0.02	—	0.02	0.02	—	0.02	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.38	0.38	—	0.19	0.19	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.55	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	157	157	< 0.005	0.01	0.01	159
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.08	3.08	< 0.005	< 0.005	< 0.005	3.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.51
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	0.21	0.04	—	5,314

Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.55	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	157	157	< 0.005	0.01	0.01	159
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.08	3.08	< 0.005	< 0.005	< 0.005	3.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.51
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.05	2.56	19.4	25.8	0.06	0.79	—	0.79	0.73	—	0.73	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.06	1.41	< 0.005	0.04	—	0.04	0.04	—	0.04	—	361	361	0.01	< 0.005	—	363

Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.19	0.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.63	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	179	179	< 0.005	0.01	0.01	182
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.0	10.0	< 0.005	< 0.005	0.01	10.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.66	1.66	< 0.005	< 0.005	< 0.005	1.67
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0

Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.63	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	179	179	< 0.005	0.01	0.01	182
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.0	10.0	< 0.005	< 0.005	0.01	10.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.66	1.66	< 0.005	< 0.005	< 0.005	1.67
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	0.90	7.87	12.8	0.02	0.22	—	0.22	0.21	—	0.21	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	0.90	7.87	12.8	0.02	0.22	—	0.22	0.21	—	0.21	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	0.50	4.42	7.18	0.01	0.13	—	0.13	0.12	—	0.12	—	1,346	1,346	0.05	0.01	—	1,351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.81	1.31	< 0.005	0.02	—	0.02	0.02	—	0.02	—	223	223	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.48	0.47	0.26	5.79	0.00	0.00	1.46	1.46	0.00	0.34	0.34	—	1,438	1,438	0.02	0.01	3.07	1,445
Vendor	0.02	0.02	0.98	0.21	0.01	0.01	0.24	0.25	0.01	0.07	0.07	—	832	832	< 0.005	0.12	1.15	870
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.43	0.33	4.54	0.00	0.00	1.46	1.46	0.00	0.34	0.34	—	1,296	1,296	0.03	0.06	0.08	1,313
Vendor	0.02	0.02	1.04	0.22	0.01	0.01	0.24	0.25	0.01	0.07	0.07	—	833	833	< 0.005	0.12	0.03	869
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.24	0.18	2.61	0.00	0.00	0.81	0.81	0.00	0.19	0.19	—	743	743	0.01	0.01	0.75	746
Vendor	0.01	0.01	0.58	0.12	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	—	468	468	< 0.005	0.07	0.28	488
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.48	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	123	123	< 0.005	< 0.005	0.12	124
Vendor	< 0.005	< 0.005	0.11	0.02	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	77.4	77.4	< 0.005	0.01	0.05	80.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.18	1.58	8.32	0.01	0.04	—	0.04	0.04	—	0.04	—	1,346	1,346	0.05	0.01	—	1,351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	1.52	< 0.005	0.01	—	0.01	0.01	—	0.01	—	223	223	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.48	0.47	0.26	5.79	0.00	0.00	1.46	1.46	0.00	0.34	0.34	—	1,438	1,438	0.02	0.01	3.07	1,445
Vendor	0.02	0.02	0.98	0.21	0.01	0.01	0.24	0.25	0.01	0.07	0.07	—	832	832	< 0.005	0.12	1.15	870
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.43	0.33	4.54	0.00	0.00	1.46	1.46	0.00	0.34	0.34	—	1,296	1,296	0.03	0.06	0.08	1,313
Vendor	0.02	0.02	1.04	0.22	0.01	0.01	0.24	0.25	0.01	0.07	0.07	—	833	833	< 0.005	0.12	0.03	869
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.24	0.18	2.61	0.00	0.00	0.81	0.81	0.00	0.19	0.19	—	743	743	0.01	0.01	0.75	746
Vendor	0.01	0.01	0.58	0.12	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	—	468	468	< 0.005	0.07	0.28	488

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.48	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	123	123	< 0.005	< 0.005	0.12	124
Vendor	< 0.005	< 0.005	0.11	0.02	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	77.4	77.4	< 0.005	0.01	0.05	80.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	0.61	6.00	9.86	0.01	0.20	—	0.20	0.18	—	0.18	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.23	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	57.9	57.9	< 0.005	< 0.005	—	58.1
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.59	9.59	< 0.005	< 0.005	—	9.63

Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.47	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	135	135	< 0.005	0.01	0.01	136
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.27	5.27	< 0.005	< 0.005	0.01	5.29
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.41	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	57.9	57.9	< 0.005	< 0.005	—	58.1
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.59	9.59	< 0.005	< 0.005	—	9.63
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.47	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	135	135	< 0.005	0.01	0.01	136
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.27	5.27	< 0.005	< 0.005	0.01	5.29
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.77	1.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	849	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.14
Architectural Coatings	—	32.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.85
Architectural Coatings	—	5.95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.09	0.07	0.91	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	259	259	0.01	0.01	0.02	263
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.01	10.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.68	1.68	< 0.005	< 0.005	< 0.005	1.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	34.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.14
Architectural Coatings	—	1.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.85
Architectural Coatings	—	0.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.09	0.07	0.91	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	259	259	0.01	0.01	0.02	263
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.01	10.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.68	1.68	< 0.005	< 0.005	< 0.005	1.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2032	1/11/2032	5.00	7.00	—
Grading	Grading	1/12/2032	2/8/2032	5.00	20.0	—
Building Construction	Building Construction	2/9/2032	11/19/2032	5.00	205	—
Paving	Paving	11/23/2032	12/12/2032	5.00	14.0	—
Architectural Coating	Architectural Coating	12/13/2032	12/30/2032	5.00	14.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45

Building Construction	Tractors/Loaders/Backh	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	144	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	32.2	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2

Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	28.9	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	144	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	32.2	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—

Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	28.9	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	706,968	235,656	62,501	20,834	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	10.5	0.00	—
Grading	—	—	42.2	0.00	—
Paving	0.00	0.00	0.00	0.00	1.21

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Apartments Low Rise	—	0%
Single Family Housing	1.21	0%
General Office Building	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2032	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8

Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974

Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0

Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4

Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	A total of 52.7 acres to be graded for vertical construction.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 9 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 9
Construction Start Date	1/1/2033
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	51.0	Dwelling Unit	5.90	54,060	0.00	—	130	—

Apartments Low Rise	0.00	Dwelling Unit	0.00	0.00	0.00	—	0.00	—
Single Family Housing	110	Dwelling Unit	38.4	214,500	1,288,414	—	279	—
General Office Building	41.7	1000sqft	4.60	41,667	0.00	—	—	—
Road Construction	2.10	Mile	4.70	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.27	3.64	26.0	46.0	0.09	0.86	4.68	5.53	0.79	0.70	1.49	—	10,788	10,788	0.38	0.18	3.23	10,853
Mit.	1.55	1.47	9.93	57.5	0.09	0.24	2.32	2.52	0.24	0.45	0.64	—	10,788	10,788	0.38	0.18	3.23	10,853
% Reduced	64%	60%	62%	-25%	—	72%	50%	54%	70%	36%	57%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	5.94	626	36.1	55.2	0.12	1.38	20.0	20.9	1.27	10.2	11.1	—	13,647	13,647	0.54	0.18	0.08	13,694
Mit.	1.52	25.3	10.8	74.7	0.12	0.25	5.44	5.55	0.25	2.70	2.81	—	13,647	13,647	0.54	0.18	0.08	13,694
% Reduced	74%	96%	70%	-35%	—	82%	73%	74%	81%	73%	75%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.59	27.9	16.1	27.1	0.05	0.53	2.83	3.36	0.49	0.74	1.23	—	6,410	6,410	0.23	0.10	0.81	6,447
Mit.	0.88	1.91	5.91	33.9	0.05	0.13	1.38	1.51	0.13	0.35	0.48	—	6,410	6,410	0.23	0.10	0.81	6,447
% Reduced	66%	93%	63%	-25%	—	75%	51%	55%	74%	53%	61%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.47	5.09	2.94	4.94	0.01	0.10	0.52	0.61	0.09	0.14	0.22	—	1,061	1,061	0.04	0.02	0.13	1,067
Mit.	0.16	0.35	1.08	6.19	0.01	0.02	0.25	0.28	0.02	0.06	0.09	—	1,061	1,061	0.04	0.02	0.13	1,067
% Reduced	66%	93%	63%	-25%	—	75%	51%	55%	74%	53%	61%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	4.27	3.64	26.0	46.0	0.09	0.86	4.68	5.53	0.79	0.70	1.49	—	10,788	10,788	0.38	0.18	3.23	10,853
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	5.94	626	36.1	55.2	0.12	1.38	20.0	20.9	1.27	10.2	11.1	—	13,647	13,647	0.54	0.18	0.08	13,694
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2033	2.59	27.9	16.1	27.1	0.05	0.53	2.83	3.36	0.49	0.74	1.23	—	6,410	6,410	0.23	0.10	0.81	6,447
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	0.47	5.09	2.94	4.94	0.01	0.10	0.52	0.61	0.09	0.14	0.22	—	1,061	1,061	0.04	0.02	0.13	1,067

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	1.55	1.47	9.93	57.5	0.09	0.24	2.32	2.52	0.24	0.45	0.64	—	10,788	10,788	0.38	0.18	3.23	10,853
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	1.52	25.3	10.8	74.7	0.12	0.25	5.44	5.55	0.25	2.70	2.81	—	13,647	13,647	0.54	0.18	0.08	13,694
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	0.88	1.91	5.91	33.9	0.05	0.13	1.38	1.51	0.13	0.35	0.48	—	6,410	6,410	0.23	0.10	0.81	6,447
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2033	0.16	0.35	1.08	6.19	0.01	0.02	0.25	0.28	0.02	0.06	0.09	—	1,061	1,061	0.04	0.02	0.13	1,067

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	2.43	3.39	< 0.005	0.10	—	0.10	0.09	—	0.09	—	491	491	0.02	< 0.005	—	493
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.17	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.0	35.0	< 0.005	< 0.005	—	35.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.79	5.79	< 0.005	< 0.005	—	5.81
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.44	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	133	133	< 0.005	< 0.005	0.01	133
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.67	9.67	< 0.005	< 0.005	0.01	9.70
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.60	1.60	< 0.005	< 0.005	< 0.005	1.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Linear, Grubbing & Land Clearing (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.84	3.43	< 0.005	0.01	—	0.01	0.01	—	0.01	—	491	491	0.02	< 0.005	—	493
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.06	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.0	35.0	< 0.005	< 0.005	—	35.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.79	5.79	< 0.005	< 0.005	—	5.81

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.44	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	133	133	< 0.005	< 0.005	0.01	133
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.67	9.67	< 0.005	< 0.005	0.01	9.70
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.60	1.60	< 0.005	< 0.005	< 0.005	1.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Linear, Grading & Excavation (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.79	2.34	17.4	28.1	0.06	0.65	—	0.65	0.60	—	0.60	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.79	2.34	17.4	28.1	0.06	0.65	—	0.65	0.60	—	0.60	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89	0.75	5.57	9.02	0.02	0.21	—	0.21	0.19	—	0.19	—	2,082	2,082	0.08	0.02	—	2,089
Dust From Material Movement	—	—	—	—	—	—	1.02	1.02	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.14	1.02	1.65	< 0.005	0.04	—	0.04	0.03	—	0.03	—	345	345	0.01	< 0.005	—	346
Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.02	0.02	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.13	0.07	1.53	0.00	0.00	0.40	0.40	0.00	0.09	0.09	—	393	393	< 0.005	< 0.005	0.76	395
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.9	24.9	< 0.005	< 0.005	0.03	26.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.09	1.18	0.00	0.00	0.40	0.40	0.00	0.09	0.09	—	354	354	0.01	< 0.005	0.02	355
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.9	24.9	< 0.005	< 0.005	< 0.005	26.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.02	0.39	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	116	116	< 0.005	< 0.005	0.10	116
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.97	7.97	< 0.005	< 0.005	< 0.005	8.34
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	19.2	19.2	< 0.005	< 0.005	0.02	19.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.32	1.32	< 0.005	< 0.005	< 0.005	1.38
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Linear, Grading & Excavation (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.66	6.16	37.5	0.06	0.12	—	0.12	0.12	—	0.12	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.66	6.16	37.5	0.06	0.12	—	0.12	0.12	—	0.12	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.21	1.98	12.0	0.02	0.04	—	0.04	0.04	—	0.04	—	2,082	2,082	0.08	0.02	—	2,089
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.36	2.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	345	345	0.01	< 0.005	—	346

Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.13	0.07	1.53	0.00	0.00	0.40	0.40	0.00	0.09	0.09	—	393	393	< 0.005	< 0.005	0.76	395
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.9	24.9	< 0.005	< 0.005	0.03	26.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.09	1.18	0.00	0.00	0.40	0.40	0.00	0.09	0.09	—	354	354	0.01	< 0.005	0.02	355
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.9	24.9	< 0.005	< 0.005	< 0.005	26.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.02	0.39	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	116	116	< 0.005	< 0.005	0.10	116
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.97	7.97	< 0.005	< 0.005	< 0.005	8.34
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	19.2	19.2	< 0.005	< 0.005	0.02	19.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.32	1.32	< 0.005	< 0.005	< 0.005	1.38
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Linear, Drainage, Utilities, & Sub-Grade (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.39	2.00	14.7	22.4	0.05	0.54	—	0.54	0.49	—	0.49	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.39	2.00	14.7	22.4	0.05	0.54	—	0.54	0.49	—	0.49	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	0.43	3.15	4.80	0.01	0.11	—	0.11	0.11	—	0.11	—	1,216	1,216	0.05	0.01	—	1,220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.57	0.88	< 0.005	0.02	—	0.02	0.02	—	0.02	—	201	201	0.01	< 0.005	—	202
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.11	0.06	1.34	0.00	0.00	0.35	0.35	0.00	0.08	0.08	—	344	344	< 0.005	< 0.005	0.66	346

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	0.08	1.04	0.00	0.00	0.35	0.35	0.00	0.08	0.08	—	310	310	0.01	< 0.005	0.02	311
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.23	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	67.7	67.7	< 0.005	< 0.005	0.06	67.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.01	11.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Linear, Drainage, Utilities, & Sub-Grade (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.74	5.10	31.6	0.05	0.17	—	0.17	0.16	—	0.16	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.74	5.10	31.6	0.05	0.17	—	0.17	0.16	—	0.16	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.16	1.09	6.75	0.01	0.04	—	0.04	0.03	—	0.03	—	1,216	1,216	0.05	0.01	—	1,220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.20	1.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	201	201	0.01	< 0.005	—	202
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.11	0.06	1.34	0.00	0.00	0.35	0.35	0.00	0.08	0.08	—	344	344	< 0.005	< 0.005	0.66	346
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	0.08	1.04	0.00	0.00	0.35	0.35	0.00	0.08	0.08	—	310	310	0.01	< 0.005	0.02	311
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02	0.02	0.01	0.23	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	67.7	67.7	< 0.005	< 0.005	0.06	67.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.01	11.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Linear, Paving (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.66	6.33	10.7	0.01	0.17	—	0.17	0.16	—	0.16	—	1,619	1,619	0.07	0.01	—	1,624
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.68	1.14	< 0.005	0.02	—	0.02	0.02	—	0.02	—	173	173	0.01	< 0.005	—	174
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.6	28.6	< 0.005	< 0.005	—	28.7

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.06	0.81	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	244	244	< 0.005	< 0.005	0.01	244
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.6	26.6	< 0.005	< 0.005	0.02	26.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.40	4.40	< 0.005	< 0.005	< 0.005	4.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Linear, Paving (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.18	2.58	11.3	0.01	0.03	—	0.03	0.03	—	0.03	—	1,619	1,619	0.07	0.01	—	1,624
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.28	1.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	173	173	0.01	< 0.005	—	174
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.05	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.6	28.6	< 0.005	< 0.005	—	28.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.06	0.81	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	244	244	< 0.005	< 0.005	0.01	244
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.6	26.6	< 0.005	< 0.005	0.02	26.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.40	4.40	< 0.005	< 0.005	< 0.005	4.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Site Preparation (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.13	2.63	21.2	24.4	0.05	0.86	—	0.86	0.79	—	0.79	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.46	0.53	< 0.005	0.02	—	0.02	0.02	—	0.02	—	116	116	< 0.005	< 0.005	—	116
Dust From Material Movement	—	—	—	—	—	—	0.43	0.43	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.52	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	155	155	< 0.005	< 0.005	0.01	155
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.47	3.47	< 0.005	< 0.005	< 0.005	3.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.57	0.57	< 0.005	< 0.005	< 0.005	0.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Site Preparation (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	116	116	< 0.005	< 0.005	—	116
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.52	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	155	155	< 0.005	< 0.005	0.01	155
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.47	3.47	< 0.005	< 0.005	< 0.005	3.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.57	0.57	< 0.005	< 0.005	< 0.005	0.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Grading (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.97	2.50	18.5	25.2	0.06	0.73	—	0.73	0.68	—	0.68	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.14	1.02	1.38	< 0.005	0.04	—	0.04	0.04	—	0.04	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.19	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.59	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	177	177	< 0.005	< 0.005	0.01	178

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.91	9.91	< 0.005	< 0.005	0.01	9.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.64	1.64	< 0.005	< 0.005	< 0.005	1.65
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Grading (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.59	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	177	177	< 0.005	< 0.005	0.01	178
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.91	9.91	< 0.005	< 0.005	0.01	9.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.64	1.64	< 0.005	< 0.005	< 0.005	1.65
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.05	0.88	7.67	12.8	0.02	0.20	—	0.20	0.19	—	0.19	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.05	0.88	7.67	12.8	0.02	0.20	—	0.20	0.19	—	0.19	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	0.49	4.24	7.07	0.01	0.11	—	0.11	0.10	—	0.10	—	1,326	1,326	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.11	0.09	0.77	1.29	< 0.005	0.02	—	0.02	0.02	—	0.02	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.28	0.16	3.43	0.00	0.00	0.91	0.91	0.00	0.21	0.21	—	881	881	0.01	0.01	1.69	885
Vendor	0.02	0.01	0.70	0.16	< 0.005	< 0.005	0.18	0.18	< 0.005	0.05	0.05	—	598	598	< 0.005	0.09	0.75	626
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.26	0.20	2.65	0.00	0.00	0.91	0.91	0.00	0.21	0.21	—	794	794	0.02	0.01	0.04	796
Vendor	0.02	0.01	0.74	0.17	< 0.005	< 0.005	0.18	0.18	< 0.005	0.05	0.05	—	598	598	< 0.005	0.09	0.02	625
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.09	1.51	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	449	449	0.01	< 0.005	0.40	450
Vendor	0.01	0.01	0.40	0.09	< 0.005	< 0.005	0.10	0.10	< 0.005	0.03	0.03	—	331	331	< 0.005	0.05	0.18	346
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.28	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	74.3	74.3	< 0.005	< 0.005	0.07	74.6
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	54.8	54.8	< 0.005	0.01	0.03	57.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Building Construction (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.18	1.55	8.20	0.01	0.04	—	0.04	0.04	—	0.04	—	1,326	1,326	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	1.50	< 0.005	0.01	—	0.01	0.01	—	0.01	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.28	0.16	3.43	0.00	0.00	0.91	0.91	0.00	0.21	0.21	—	881	881	0.01	0.01	1.69	885
Vendor	0.02	0.01	0.70	0.16	< 0.005	< 0.005	0.18	0.18	< 0.005	0.05	0.05	—	598	598	< 0.005	0.09	0.75	626
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.26	0.20	2.65	0.00	0.00	0.91	0.91	0.00	0.21	0.21	—	794	794	0.02	0.01	0.04	796
Vendor	0.02	0.01	0.74	0.17	< 0.005	< 0.005	0.18	0.18	< 0.005	0.05	0.05	—	598	598	< 0.005	0.09	0.02	625
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.09	1.51	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	449	449	0.01	< 0.005	0.40	450
Vendor	0.01	0.01	0.40	0.09	< 0.005	< 0.005	0.10	0.10	< 0.005	0.03	0.03	—	331	331	< 0.005	0.05	0.18	346
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.28	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	74.3	74.3	< 0.005	< 0.005	0.07	74.6
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	54.8	54.8	< 0.005	0.01	0.03	57.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Paving (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70	0.59	5.91	9.84	0.01	0.18	—	0.18	0.17	—	0.17	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.24	0.40	< 0.005	0.01	—	0.01	0.01	—	0.01	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.44	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	133	133	< 0.005	< 0.005	0.01	133
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.58	5.58	< 0.005	< 0.005	0.01	5.60
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.92	0.92	< 0.005	< 0.005	< 0.005	0.93

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Paving (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.44	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	133	133	< 0.005	< 0.005	0.01	133
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.58	5.58	< 0.005	< 0.005	0.01	5.60
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.92	0.92	< 0.005	< 0.005	< 0.005	0.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Architectural Coating (2033) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.11	0.09	0.76	1.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	625	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	25.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	4.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.53	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	159	159	< 0.005	< 0.005	0.01	159
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.67	6.67	< 0.005	< 0.005	0.01	6.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.10	1.10	< 0.005	< 0.005	< 0.005	1.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Architectural Coating (2033) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	25.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51

Architect Coatings	—	1.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.53	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	159	159	< 0.005	< 0.005	0.01	159
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.67	6.67	< 0.005	< 0.005	0.01	6.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.10	1.10	< 0.005	< 0.005	< 0.005	1.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	1/1/2033	2/7/2033	5.00	26.0	—
Linear, Grading & Excavation	Linear, Grading & Excavation	2/8/2033	7/20/2033	5.00	117	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	7/21/2033	11/7/2033	5.00	78.0	—
Linear, Paving	Linear, Paving	11/8/2033	12/30/2033	5.00	39.0	—
Site Preparation	Site Preparation	1/2/2033	1/12/2033	5.00	8.00	—

Grading	Grading	1/13/2033	2/9/2033	5.00	20.0	—
Building Construction	Building Construction	2/10/2033	11/18/2033	5.00	202	—
Paving	Paving	11/19/2033	12/9/2033	5.00	15.0	—
Architectural Coating	Architectural Coating	12/10/2033	12/30/2033	5.00	15.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	4.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	4.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	4.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	4.00	8.00	6.00	0.82
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	4.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Tier 4 Final	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Tier 4 Final	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Tier 4 Final	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	4.00	8.00	6.00	0.82

Linear, Grading & Excavation	Tractors/Loaders/Backh	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	4.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Tier 4 Final	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Tier 4 Final	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Tier 4 Final	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	4.00	8.00	6.00	0.82
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37

Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2

Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	89.7	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	24.0	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.9	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	15.0	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	40.0	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT

Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	35.0	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	27.5	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	89.7	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	24.0	8.80	HHDT,MHDT

Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.9	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	15.0	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	40.0	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	35.0	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT

Linear, Paving	—	—	—	—
Linear, Paving	Worker	27.5	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	543,834	181,278	62,501	20,834	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Linear, Grading & Excavation	—	—	4.70	0.00	—
Site Preparation	—	—	12.0	0.00	—
Grading	—	—	36.9	0.00	—
Paving	0.00	0.00	0.00	0.00	5.91

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Apartments Low Rise	—	0%
Single Family Housing	1.21	0%
General Office Building	0.00	0%
Road Construction	4.70	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2033	470	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00

Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—

2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0

Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	Total 48.9 acres to be graded for vertical and 4.7 acres for linear.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 10 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 10
Construction Start Date	1/1/2034
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	51.0	Dwelling Unit	5.90	54,060	0.00	—	130	—

Apartments Low Rise	63.0	Dwelling Unit	3.20	66,780	0.00	—	160	—
Single Family Housing	110	Dwelling Unit	38.4	214,500	1,288,414	—	279	—
General Office Building	41.7	1000sqft	4.60	41,667	0.00	—	—	—
Strip Mall	33.3	1000sqft	5.30	33,334	0.00	—	—	—
City Park	6.50	Acre	6.50	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.50	1.32	8.71	18.3	0.03	0.20	1.74	1.94	0.18	0.42	0.60	—	4,675	4,675	0.11	0.16	3.43	4,729
Mit.	0.82	0.78	4.00	20.3	0.03	0.08	1.74	1.82	0.08	0.42	0.50	—	4,675	4,675	0.11	0.16	3.43	4,729
% Reduced	45%	41%	54%	-11%	—	60%	—	6%	58%	—	18%	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.11	874	20.6	25.6	0.06	0.82	19.8	20.7	0.75	10.1	10.9	—	6,771	6,771	0.27	0.16	0.09	6,794
Mit.	0.79	35.1	4.46	35.9	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,771	6,771	0.27	0.16	0.09	6,794
% Reduced	75%	96%	78%	-40%	—	85%	73%	74%	84%	74%	75%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.08	34.5	6.58	12.0	0.02	0.17	1.88	2.06	0.16	0.63	0.79	—	3,116	3,116	0.09	0.09	0.86	3,148
Mit.	0.50	1.82	2.70	13.8	0.02	0.05	1.23	1.29	0.05	0.34	0.40	—	3,116	3,116	0.09	0.09	0.86	3,148
% Reduced	54%	95%	59%	-15%	—	68%	35%	37%	66%	46%	50%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.20	6.29	1.20	2.19	< 0.005	0.03	0.34	0.38	0.03	0.12	0.14	—	516	516	0.01	0.02	0.14	521
Mit.	0.09	0.33	0.49	2.52	< 0.005	0.01	0.22	0.23	0.01	0.06	0.07	—	516	516	0.01	0.02	0.14	521
% Reduced	54%	95%	59%	-15%	—	68%	35%	37%	66%	46%	50%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	1.50	1.32	8.71	18.3	0.03	0.20	1.74	1.94	0.18	0.42	0.60	—	4,675	4,675	0.11	0.16	3.43	4,729
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	3.11	874	20.6	25.6	0.06	0.82	19.8	20.7	0.75	10.1	10.9	—	6,771	6,771	0.27	0.16	0.09	6,794

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	1.08	34.5	6.58	12.0	0.02	0.17	1.88	2.06	0.16	0.63	0.79	—	3,116	3,116	0.09	0.09	0.86	3,148
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	0.20	6.29	1.20	2.19	< 0.005	0.03	0.34	0.38	0.03	0.12	0.14	—	516	516	0.01	0.02	0.14	521

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	0.82	0.78	4.00	20.3	0.03	0.08	1.74	1.82	0.08	0.42	0.50	—	4,675	4,675	0.11	0.16	3.43	4,729
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	0.79	35.1	4.46	35.9	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,771	6,771	0.27	0.16	0.09	6,794
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	0.50	1.82	2.70	13.8	0.02	0.05	1.23	1.29	0.05	0.34	0.40	—	3,116	3,116	0.09	0.09	0.86	3,148
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2034	0.09	0.33	0.49	2.52	< 0.005	0.01	0.22	0.23	0.01	0.06	0.07	—	516	516	0.01	0.02	0.14	521

3. Construction Emissions Details

3.1. Site Preparation (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.06	2.57	20.6	24.1	0.05	0.82	—	0.82	0.75	—	0.75	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.39	0.46	< 0.005	0.02	—	0.02	0.01	—	0.01	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.38	0.38	—	0.19	0.19	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.49	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	153	153	< 0.005	< 0.005	0.01	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.00	3.00	< 0.005	< 0.005	< 0.005	3.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.50	0.50	< 0.005	< 0.005	< 0.005	0.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2034) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	0.21	0.04	—	5,314

Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.49	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	153	153	< 0.005	< 0.005	0.01	153
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.00	3.00	< 0.005	< 0.005	< 0.005	3.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.50	0.50	< 0.005	< 0.005	< 0.005	0.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.90	2.44	17.8	25.1	0.06	0.68	—	0.68	0.62	—	0.62	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	0.97	1.37	< 0.005	0.04	—	0.04	0.03	—	0.03	—	361	361	0.01	< 0.005	—	363

Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.18	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.56	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	175	175	< 0.005	< 0.005	0.01	175
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.79	9.79	< 0.005	< 0.005	0.01	9.82
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.62	1.62	< 0.005	< 0.005	< 0.005	1.63
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading (2034) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0

Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.56	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	175	175	< 0.005	< 0.005	0.01	175
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.79	9.79	< 0.005	< 0.005	0.01	9.82
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.62	1.62	< 0.005	< 0.005	< 0.005	1.63
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	0.86	7.52	12.8	0.02	0.19	—	0.19	0.18	—	0.18	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	0.86	7.52	12.8	0.02	0.19	—	0.19	0.18	—	0.18	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	0.48	4.22	7.17	0.01	0.11	—	0.11	0.10	—	0.10	—	1,346	1,346	0.05	0.01	—	1,351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.77	1.31	< 0.005	0.02	—	0.02	0.02	—	0.02	—	223	223	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.44	0.21	5.29	0.00	0.00	1.47	1.47	0.00	0.35	0.35	—	1,414	1,414	0.02	0.01	2.42	1,420
Vendor	0.03	0.02	0.98	0.23	0.01	0.01	0.27	0.27	0.01	0.07	0.08	—	864	864	< 0.005	0.13	1.00	904
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.42	0.40	0.28	4.10	0.00	0.00	1.47	1.47	0.00	0.35	0.35	—	1,274	1,274	0.02	0.01	0.06	1,278
Vendor	0.03	0.02	1.04	0.25	0.01	0.01	0.27	0.27	0.01	0.07	0.08	—	864	864	< 0.005	0.13	0.03	904
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.22	0.15	2.36	0.00	0.00	0.82	0.82	0.00	0.19	0.19	—	731	731	0.01	0.01	0.59	733
Vendor	0.02	0.01	0.58	0.13	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.05	—	485	485	< 0.005	0.07	0.24	508
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.43	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	121	121	< 0.005	< 0.005	0.10	121
Vendor	< 0.005	< 0.005	0.11	0.02	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	80.3	80.3	< 0.005	0.01	0.04	84.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2034) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.18	1.58	8.32	0.01	0.04	—	0.04	0.04	—	0.04	—	1,346	1,346	0.05	0.01	—	1,351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	1.52	< 0.005	0.01	—	0.01	0.01	—	0.01	—	223	223	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.44	0.21	5.29	0.00	0.00	1.47	1.47	0.00	0.35	0.35	—	1,414	1,414	0.02	0.01	2.42	1,420
Vendor	0.03	0.02	0.98	0.23	0.01	0.01	0.27	0.27	0.01	0.07	0.08	—	864	864	< 0.005	0.13	1.00	904
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.42	0.40	0.28	4.10	0.00	0.00	1.47	1.47	0.00	0.35	0.35	—	1,274	1,274	0.02	0.01	0.06	1,278
Vendor	0.03	0.02	1.04	0.25	0.01	0.01	0.27	0.27	0.01	0.07	0.08	—	864	864	< 0.005	0.13	0.03	904
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.22	0.15	2.36	0.00	0.00	0.82	0.82	0.00	0.19	0.19	—	731	731	0.01	0.01	0.59	733
Vendor	0.02	0.01	0.58	0.13	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.05	—	485	485	< 0.005	0.07	0.24	508

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.43	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	121	121	< 0.005	< 0.005	0.10	121
Vendor	< 0.005	< 0.005	0.11	0.02	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	80.3	80.3	< 0.005	0.01	0.04	84.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68	0.58	5.86	9.82	0.01	0.18	—	0.18	0.16	—	0.16	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.22	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	57.9	57.9	< 0.005	< 0.005	—	58.1
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.59	9.59	< 0.005	< 0.005	—	9.63

Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.42	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	131	131	< 0.005	< 0.005	0.01	132
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.14	5.14	< 0.005	< 0.005	< 0.005	5.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.85	0.85	< 0.005	< 0.005	< 0.005	0.85
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2034) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.41	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	57.9	57.9	< 0.005	< 0.005	—	58.1
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.59	9.59	< 0.005	< 0.005	—	9.63
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.42	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	131	131	< 0.005	< 0.005	0.01	132
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.14	5.14	< 0.005	< 0.005	< 0.005	5.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.85	0.85	< 0.005	< 0.005	< 0.005	0.85
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2034) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.76	1.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	874	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.14
Architectural Coatings	—	33.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.85
Architectural Coatings	—	6.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.06	0.82	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	255	255	< 0.005	< 0.005	0.01	256
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.98	9.98	< 0.005	< 0.005	0.01	10.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.65	1.65	< 0.005	< 0.005	< 0.005	1.66
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2034) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	35.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.14
Architectural Coatings	—	1.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.85
Architectural Coatings	—	0.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.06	0.82	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	255	255	< 0.005	< 0.005	0.01	256
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.98	9.98	< 0.005	< 0.005	0.01	10.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.65	1.65	< 0.005	< 0.005	< 0.005	1.66
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2034	1/10/2034	5.00	7.00	—
Grading	Grading	1/11/2034	2/7/2034	5.00	20.0	—
Building Construction	Building Construction	2/8/2034	11/21/2034	5.00	205	—
Paving	Paving	11/22/2034	12/11/2034	5.00	14.0	—
Architectural Coating	Architectural Coating	12/12/2034	12/30/2034	5.00	14.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45

Building Construction	Tractors/Loaders/Backh	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	146	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	36.2	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2

Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	29.1	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	146	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	36.2	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—

Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	29.1	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	679,064	226,355	112,502	37,501	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	10.5	0.00	—
Grading	—	—	53.4	0.00	—
Paving	0.00	0.00	0.00	0.00	1.21

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Apartments Low Rise	—	0%
Single Family Housing	1.21	0%
General Office Building	0.00	0%
Strip Mall	0.00	0%
City Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2034	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1

Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—

Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0

Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—

Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	A total of 63.9 acres to be graded for vertical construction.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 11 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 11
Construction Start Date	1/1/2035
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	51.0	Dwelling Unit	5.90	54,060	0.00	—	130	—

Apartments Low Rise	63.0	Dwelling Unit	3.20	66,780	0.00	—	160	—
Single Family Housing	110	Dwelling Unit	38.4	214,500	1,288,414	—	279	—
General Office Building	41.7	1000sqft	4.60	41,667	0.00	—	—	—
Road Construction	0.80	Mile	3.70	0.00	0.00	—	—	—
City Park	6.50	Acre	6.50	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.17	3.57	24.5	46.7	0.09	0.74	5.11	5.84	0.68	0.81	1.48	—	11,224	11,224	0.38	0.19	3.22	11,294
Mit.	1.64	1.56	10.0	58.4	0.09	0.24	2.75	2.95	0.24	0.55	0.75	—	11,224	11,224	0.38	0.19	3.22	11,294
% Reduced	61%	56%	59%	-25%	—	67%	46%	49%	65%	32%	49%	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.59	819	33.1	54.0	0.12	1.17	19.9	20.7	1.08	10.2	10.9	—	13,567	13,567	0.54	0.19	0.08	13,614
Mit.	1.61	33.1	10.7	74.3	0.12	0.25	5.36	5.47	0.25	2.69	2.79	—	13,567	13,567	0.54	0.19	0.08	13,614
% Reduced	71%	96%	68%	-38%	—	79%	73%	74%	77%	74%	74%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.52	33.6	15.2	27.2	0.05	0.46	3.01	3.47	0.42	0.77	1.19	—	6,644	6,644	0.23	0.11	0.80	6,683
Mit.	0.93	2.18	6.02	34.3	0.05	0.13	1.61	1.74	0.13	0.40	0.53	—	6,644	6,644	0.23	0.11	0.80	6,683
% Reduced	63%	94%	60%	-26%	—	71%	47%	50%	69%	48%	56%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.46	6.13	2.78	4.97	0.01	0.08	0.55	0.63	0.08	0.14	0.22	—	1,100	1,100	0.04	0.02	0.13	1,107
Mit.	0.17	0.40	1.10	6.26	0.01	0.02	0.29	0.32	0.02	0.07	0.10	—	1,100	1,100	0.04	0.02	0.13	1,107
% Reduced	63%	94%	60%	-26%	—	71%	47%	50%	69%	48%	56%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	4.17	3.57	24.5	46.7	0.09	0.74	5.11	5.84	0.68	0.81	1.48	—	11,224	11,224	0.38	0.19	3.22	11,294
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	5.59	819	33.1	54.0	0.12	1.17	19.9	20.7	1.08	10.2	10.9	—	13,567	13,567	0.54	0.19	0.08	13,614

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	2.52	33.6	15.2	27.2	0.05	0.46	3.01	3.47	0.42	0.77	1.19	—	6,644	6,644	0.23	0.11	0.80	6,683
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	0.46	6.13	2.78	4.97	0.01	0.08	0.55	0.63	0.08	0.14	0.22	—	1,100	1,100	0.04	0.02	0.13	1,107

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	1.64	1.56	10.0	58.4	0.09	0.24	2.75	2.95	0.24	0.55	0.75	—	11,224	11,224	0.38	0.19	3.22	11,294
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	1.61	33.1	10.7	74.3	0.12	0.25	5.36	5.47	0.25	2.69	2.79	—	13,567	13,567	0.54	0.19	0.08	13,614
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	0.93	2.18	6.02	34.3	0.05	0.13	1.61	1.74	0.13	0.40	0.53	—	6,644	6,644	0.23	0.11	0.80	6,683
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2035	0.17	0.40	1.10	6.26	0.01	0.02	0.29	0.32	0.02	0.07	0.10	—	1,100	1,100	0.04	0.02	0.13	1,107

3. Construction Emissions Details

3.1. Site Preparation (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.93	2.46	19.2	22.9	0.05	0.74	—	0.74	0.68	—	0.68	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.37	0.44	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.38	0.38	—	0.19	0.19	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.47	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	151	151	< 0.005	< 0.005	0.01	152
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.96	2.96	< 0.005	< 0.005	< 0.005	2.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.49	0.49	< 0.005	< 0.005	< 0.005	0.49
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	0.21	0.04	—	5,314

Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.47	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	151	151	< 0.005	< 0.005	0.01	152
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.96	2.96	< 0.005	< 0.005	< 0.005	2.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.49	0.49	< 0.005	< 0.005	< 0.005	0.49
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.81	2.36	16.8	24.6	0.06	0.62	—	0.62	0.57	—	0.57	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.92	1.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	361	361	0.01	< 0.005	—	363

Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.17	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.53	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	173	173	< 0.005	< 0.005	0.01	173
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.68	9.68	< 0.005	< 0.005	0.01	9.71
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.60	1.60	< 0.005	< 0.005	< 0.005	1.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0

Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.53	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	173	173	< 0.005	< 0.005	0.01	173
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.68	9.68	< 0.005	< 0.005	0.01	9.71
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.60	1.60	< 0.005	< 0.005	< 0.005	1.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.01	0.85	7.34	12.7	0.02	0.18	—	0.18	0.17	—	0.17	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.01	0.85	7.34	12.7	0.02	0.18	—	0.18	0.17	—	0.17	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	0.48	4.12	7.13	0.01	0.10	—	0.10	0.09	—	0.09	—	1,346	1,346	0.05	0.01	—	1,351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.75	1.30	< 0.005	0.02	—	0.02	0.02	—	0.02	—	223	223	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.40	0.39	0.19	4.69	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,296	1,296	0.01	0.01	1.98	1,301
Vendor	0.02	0.02	0.79	0.20	0.01	0.01	0.23	0.23	0.01	0.06	0.07	—	703	703	< 0.005	0.11	0.75	735
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.37	0.25	3.61	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,167	1,167	0.02	0.01	0.05	1,170
Vendor	0.02	0.01	0.84	0.20	0.01	0.01	0.23	0.23	0.01	0.06	0.07	—	703	703	< 0.005	0.11	0.02	734
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.20	0.14	2.08	0.00	0.00	0.76	0.76	0.00	0.18	0.18	—	670	670	0.01	0.01	0.48	672
Vendor	0.01	0.01	0.46	0.11	< 0.005	< 0.005	0.13	0.13	< 0.005	0.04	0.04	—	395	395	< 0.005	0.06	0.18	413
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.38	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	111	111	< 0.005	< 0.005	0.08	111
Vendor	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	65.3	65.3	< 0.005	0.01	0.03	68.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.18	1.58	8.32	0.01	0.04	—	0.04	0.04	—	0.04	—	1,346	1,346	0.05	0.01	—	1,351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	1.52	< 0.005	0.01	—	0.01	0.01	—	0.01	—	223	223	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.40	0.39	0.19	4.69	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,296	1,296	0.01	0.01	1.98	1,301
Vendor	0.02	0.02	0.79	0.20	0.01	0.01	0.23	0.23	0.01	0.06	0.07	—	703	703	< 0.005	0.11	0.75	735
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.37	0.25	3.61	0.00	0.00	1.36	1.36	0.00	0.32	0.32	—	1,167	1,167	0.02	0.01	0.05	1,170
Vendor	0.02	0.01	0.84	0.20	0.01	0.01	0.23	0.23	0.01	0.06	0.07	—	703	703	< 0.005	0.11	0.02	734
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.20	0.14	2.08	0.00	0.00	0.76	0.76	0.00	0.18	0.18	—	670	670	0.01	0.01	0.48	672
Vendor	0.01	0.01	0.46	0.11	< 0.005	< 0.005	0.13	0.13	< 0.005	0.04	0.04	—	395	395	< 0.005	0.06	0.18	413

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.38	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	111	111	< 0.005	< 0.005	0.08	111
Vendor	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	65.3	65.3	< 0.005	0.01	0.03	68.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	0.55	5.73	9.80	0.01	0.15	—	0.15	0.14	—	0.14	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.22	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	57.9	57.9	< 0.005	< 0.005	—	58.1
Paving	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.59	9.59	< 0.005	< 0.005	—	9.63

Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.40	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	130	130	< 0.005	< 0.005	0.01	130
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.08	5.08	< 0.005	< 0.005	< 0.005	5.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.84	0.84	< 0.005	< 0.005	< 0.005	0.84
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.41	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	57.9	57.9	< 0.005	< 0.005	—	58.1
Paving	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.59	9.59	< 0.005	< 0.005	—	9.63
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.40	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	130	130	< 0.005	< 0.005	0.01	130
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.08	5.08	< 0.005	< 0.005	< 0.005	5.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.84	0.84	< 0.005	< 0.005	< 0.005	0.84
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.76	1.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	819	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.14
Architectural Coatings	—	31.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.85
Architectural Coatings	—	5.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.72	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	233	233	< 0.005	< 0.005	0.01	234
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.15	9.15	< 0.005	< 0.005	0.01	9.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.51	1.51	< 0.005	< 0.005	< 0.005	1.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	32.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.14
Architectural Coatings	—	1.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.85
Architectural Coatings	—	0.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.72	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	233	233	< 0.005	< 0.005	0.01	234
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.15	9.15	< 0.005	< 0.005	0.01	9.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.51	1.51	< 0.005	< 0.005	< 0.005	1.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Linear, Grubbing & Land Clearing (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.24	2.35	3.38	< 0.005	0.08	—	0.08	0.08	—	0.08	—	491	491	0.02	< 0.005	—	493

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.17	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.0	35.0	< 0.005	< 0.005	—	35.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.79	5.79	< 0.005	< 0.005	—	5.81
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.20	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	64.8	64.8	< 0.005	< 0.005	< 0.005	65.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.72	4.72	< 0.005	< 0.005	< 0.005	4.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.78	0.78	< 0.005	< 0.005	< 0.005	0.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Linear, Grubbing & Land Clearing (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.84	3.43	< 0.005	0.01	—	0.01	0.01	—	0.01	—	491	491	0.02	< 0.005	—	493
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.06	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.0	35.0	< 0.005	< 0.005	—	35.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.79	5.79	< 0.005	< 0.005	—	5.81
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02	0.02	0.01	0.20	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	64.8	64.8	< 0.005	< 0.005	< 0.005	65.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.72	4.72	< 0.005	< 0.005	< 0.005	4.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.78	0.78	< 0.005	< 0.005	< 0.005	0.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Linear, Grading & Excavation (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.63	2.21	16.1	28.0	0.06	0.55	—	0.55	0.51	—	0.51	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.63	2.21	16.1	28.0	0.06	0.55	—	0.55	0.51	—	0.51	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.84	0.71	5.18	8.96	0.02	0.18	—	0.18	0.16	—	0.16	—	2,082	2,082	0.08	0.02	—	2,089
Dust From Material Movement	—	—	—	—	—	—	1.02	1.02	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.94	1.64	< 0.005	0.03	—	0.03	0.03	—	0.03	—	345	345	0.01	< 0.005	—	346
Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.05	1.13	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	312	312	< 0.005	< 0.005	0.48	313
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.8	22.8	< 0.005	< 0.005	0.02	23.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.09	0.06	0.87	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	281	281	0.01	< 0.005	0.01	282
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.8	22.8	< 0.005	< 0.005	< 0.005	23.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.29	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	92.0	92.0	< 0.005	< 0.005	0.07	92.3
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.32	7.32	< 0.005	< 0.005	< 0.005	7.65
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.2	15.2	< 0.005	< 0.005	0.01	15.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.21	1.21	< 0.005	< 0.005	< 0.005	1.27
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Linear, Grading & Excavation (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.66	6.16	37.5	0.06	0.12	—	0.12	0.12	—	0.12	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.66	6.16	37.5	0.06	0.12	—	0.12	0.12	—	0.12	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.21	1.98	12.0	0.02	0.04	—	0.04	0.04	—	0.04	—	2,082	2,082	0.08	0.02	—	2,089
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.36	2.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	345	345	0.01	< 0.005	—	346
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.05	1.13	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	312	312	< 0.005	< 0.005	0.48	313

Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.8	22.8	< 0.005	< 0.005	0.02	23.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.09	0.06	0.87	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	281	281	0.01	< 0.005	0.01	282
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.8	22.8	< 0.005	< 0.005	< 0.005	23.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.29	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	92.0	92.0	< 0.005	< 0.005	0.07	92.3
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.32	7.32	< 0.005	< 0.005	< 0.005	7.65
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.05	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.2	15.2	< 0.005	< 0.005	0.01	15.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.21	1.21	< 0.005	< 0.005	< 0.005	1.27
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Linear, Drainage, Utilities, & Sub-Grade (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.29	1.92	13.7	22.3	0.05	0.47	—	0.47	0.43	—	0.43	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.29	1.92	13.7	22.3	0.05	0.47	—	0.47	0.43	—	0.43	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.49	0.41	2.92	4.77	0.01	0.10	—	0.10	0.09	—	0.09	—	1,216	1,216	0.05	0.01	—	1,220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.07	0.53	0.87	< 0.005	0.02	—	0.02	0.02	—	0.02	—	201	201	0.01	< 0.005	—	202
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.04	0.96	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	264	264	< 0.005	< 0.005	0.40	265
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.73	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	238	238	< 0.005	< 0.005	0.01	238
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02	0.02	0.01	0.16	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	51.9	51.9	< 0.005	< 0.005	0.04	52.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.59	8.59	< 0.005	< 0.005	0.01	8.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Linear, Drainage, Utilities, & Sub-Grade (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.74	5.10	31.6	0.05	0.17	—	0.17	0.16	—	0.16	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.74	5.10	31.6	0.05	0.17	—	0.17	0.16	—	0.16	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.16	1.09	6.75	0.01	0.04	—	0.04	0.03	—	0.03	—	1,216	1,216	0.05	0.01	—	1,220

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.20	1.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	201	201	0.01	< 0.005	—	202
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.04	0.96	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	264	264	< 0.005	< 0.005	0.40	265
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.73	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	238	238	< 0.005	< 0.005	0.01	238
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.16	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	51.9	51.9	< 0.005	< 0.005	0.04	52.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.59	8.59	< 0.005	< 0.005	0.01	8.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Linear, Paving (2035) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73	0.61	6.17	10.6	0.01	0.14	—	0.14	0.13	—	0.13	—	1,619	1,619	0.07	0.01	—	1,624
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.66	1.13	< 0.005	0.02	—	0.02	0.01	—	0.01	—	173	173	0.01	< 0.005	—	174
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.12	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.6	28.6	< 0.005	< 0.005	—	28.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.06	0.05	0.04	0.53	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	173	173	< 0.005	< 0.005	0.01	173
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	18.9	18.9	< 0.005	< 0.005	0.01	18.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.12	3.12	< 0.005	< 0.005	< 0.005	3.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Linear, Paving (2035) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.18	2.58	11.3	0.01	0.03	—	0.03	0.03	—	0.03	—	1,619	1,619	0.07	0.01	—	1,624
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.02	0.02	0.28	1.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	173	173	0.01	< 0.005	—	174
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.05	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.6	28.6	< 0.005	< 0.005	—	28.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.53	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	173	173	< 0.005	< 0.005	0.01	173
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	18.9	18.9	< 0.005	< 0.005	0.01	18.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.12	3.12	< 0.005	< 0.005	< 0.005	3.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2035	1/9/2035	5.00	7.00	—
Grading	Grading	1/10/2035	2/6/2035	5.00	20.0	—
Building Construction	Building Construction	2/7/2035	11/20/2035	5.00	205	—
Paving	Paving	11/21/2035	12/10/2035	5.00	14.0	—
Architectural Coating	Architectural Coating	12/11/2035	12/30/2035	5.00	14.0	—
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	1/1/2035	2/5/2035	5.00	26.0	—
Linear, Grading & Excavation	Linear, Grading & Excavation	2/6/2035	7/18/2035	5.00	117	—

Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	7/19/2035	11/5/2035	5.00	78.0	—
Linear, Paving	Linear, Paving	11/6/2035	12/29/2035	5.00	39.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82

Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74

Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42

Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Tier 4 Final	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Tier 4 Final	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Tier 4 Final	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37

Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Tier 4 Final	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Tier 4 Final	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Tier 4 Final	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT

Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	135	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	30.8	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	27.0	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	7.50	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	32.5	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—

Linear, Drainage, Utilities, & Sub-Grade	Worker	27.5	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	20.0	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	135	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	30.8	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	27.0	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	7.50	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	32.5	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	27.5	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	20.0	14.3	LDA,LDT1,LDT2

Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	679,064	226,355	62,501	20,834	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	10.5	0.00	—
Grading	—	—	48.1	0.00	—
Paving	0.00	0.00	0.00	0.00	4.91
Linear, Grading & Excavation	—	—	3.70	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt

Condo/Townhouse	—	0%
Apartments Low Rise	—	0%
Single Family Housing	1.21	0%
General Office Building	0.00	0%
Road Construction	3.70	100%
City Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2035	117	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2

Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00

Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622

Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6

Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	Total 58.6 acres to be graded for vertical and 3.7 acres for linear.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 12 Detailed Report

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2.3. Construction Emissions by Year, Mitigated

3. Construction Emissions Details

3.1. Site Preparation (2036) - Unmitigated

3.2. Site Preparation (2036) - Mitigated

3.3. Grading (2036) - Unmitigated

3.4. Grading (2036) - Mitigated

3.5. Building Construction (2036) - Unmitigated

3.6. Building Construction (2036) - Mitigated

3.7. Paving (2036) - Unmitigated

3.8. Paving (2036) - Mitigated

3.9. Architectural Coating (2036) - Unmitigated

3.10. Architectural Coating (2036) - Mitigated

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 12
Construction Start Date	1/1/2036
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	51.0	Dwelling Unit	5.90	54,060	0.00	—	130	—

Apartments Low Rise	75.0	Dwelling Unit	3.20	79,500	0.00	—	190	—
Single Family Housing	110	Dwelling Unit	38.4	214,500	1,288,414	—	279	—
General Office Building	41.7	1000sqft	4.60	41,667	0.00	—	—	—
Strip Mall	0.00	1000sqft	0.00	0.00	0.00	—	—	—
City Park	0.00	Acre	0.00	0.00	0.00	0.00	—	—
Junior High School	779	Student	19.0	91,581	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.55	1.37	8.51	18.9	0.03	0.18	2.19	2.37	0.16	0.53	0.69	—	5,155	5,155	0.12	0.18	3.33	5,216
Mit.	0.90	0.87	4.20	21.2	0.03	0.08	2.19	2.27	0.08	0.53	0.61	—	5,155	5,155	0.12	0.18	3.33	5,216
% Reduced	42%	37%	51%	-12%	—	54%	—	4%	52%	—	12%	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.84	999	18.0	24.6	0.06	0.67	19.8	20.5	0.62	10.1	10.8	—	6,767	6,767	0.27	0.18	0.09	6,790
Mit.	0.87	40.1	4.46	35.9	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,767	6,767	0.27	0.18	0.09	6,790
% Reduced	69%	96%	75%	-46%	—	82%	73%	74%	80%	74%	74%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.09	39.3	6.28	12.2	0.02	0.15	2.14	2.29	0.14	0.70	0.83	—	3,374	3,374	0.09	0.11	0.83	3,409
Mit.	0.55	2.06	2.79	14.2	0.02	0.06	1.48	1.54	0.05	0.40	0.46	—	3,374	3,374	0.09	0.11	0.83	3,409
% Reduced	50%	95%	56%	-17%	—	63%	31%	33%	61%	42%	45%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.20	7.17	1.15	2.22	< 0.005	0.03	0.39	0.42	0.03	0.13	0.15	—	559	559	0.02	0.02	0.14	564
Mit.	0.10	0.38	0.51	2.59	< 0.005	0.01	0.27	0.28	0.01	0.07	0.08	—	559	559	0.02	0.02	0.14	564
% Reduced	50%	95%	56%	-17%	—	63%	31%	33%	61%	42%	45%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2036	1.55	1.37	8.51	18.9	0.03	0.18	2.19	2.37	0.16	0.53	0.69	—	5,155	5,155	0.12	0.18	3.33	5,216
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2036	2.84	999	18.0	24.6	0.06	0.67	19.8	20.5	0.62	10.1	10.8	—	6,767	6,767	0.27	0.18	0.09	6,790

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2036	1.09	39.3	6.28	12.2	0.02	0.15	2.14	2.29	0.14	0.70	0.83	—	3,374	3,374	0.09	0.11	0.83	3,409
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2036	0.20	7.17	1.15	2.22	< 0.005	0.03	0.39	0.42	0.03	0.13	0.15	—	559	559	0.02	0.02	0.14	564

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2036	0.90	0.87	4.20	21.2	0.03	0.08	2.19	2.27	0.08	0.53	0.61	—	5,155	5,155	0.12	0.18	3.33	5,216
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2036	0.87	40.1	4.46	35.9	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,767	6,767	0.27	0.18	0.09	6,790
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2036	0.55	2.06	2.79	14.2	0.02	0.06	1.48	1.54	0.05	0.40	0.46	—	3,374	3,374	0.09	0.11	0.83	3,409
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2036	0.10	0.38	0.51	2.59	< 0.005	0.01	0.27	0.28	0.01	0.07	0.08	—	559	559	0.02	0.02	0.14	564

3. Construction Emissions Details

3.1. Site Preparation (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.79	2.35	18.0	21.7	0.05	0.67	—	0.67	0.62	—	0.62	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.35	0.42	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.38	0.38	—	0.19	0.19	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.45	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	150	150	< 0.005	< 0.005	0.01	150
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.93	2.93	< 0.005	< 0.005	< 0.005	2.94
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.49	0.49	< 0.005	< 0.005	< 0.005	0.49
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2036) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	0.21	0.04	—	5,314

Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.45	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	150	150	< 0.005	< 0.005	0.01	150
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.93	2.93	< 0.005	< 0.005	< 0.005	2.94
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.49	0.49	< 0.005	< 0.005	< 0.005	0.49
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.71	2.28	15.9	24.1	0.06	0.58	—	0.58	0.53	—	0.53	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.87	1.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	361	361	0.01	< 0.005	—	363

Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.16	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.51	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	171	171	< 0.005	< 0.005	0.01	172
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.58	9.58	< 0.005	< 0.005	0.01	9.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.59	1.59	< 0.005	< 0.005	< 0.005	1.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading (2036) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0

Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.51	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	171	171	< 0.005	< 0.005	0.01	172
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.58	9.58	< 0.005	< 0.005	0.01	9.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.59	1.59	< 0.005	< 0.005	< 0.005	1.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99	0.83	7.12	12.6	0.02	0.17	—	0.17	0.16	—	0.16	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99	0.83	7.12	12.6	0.02	0.17	—	0.17	0.16	—	0.16	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.47	4.00	7.08	0.01	0.09	—	0.09	0.09	—	0.09	—	1,346	1,346	0.05	0.01	—	1,351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	0.73	1.29	< 0.005	0.02	—	0.02	0.02	—	0.02	—	223	223	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.53	0.52	0.26	6.05	0.00	0.00	1.84	1.84	0.00	0.43	0.43	—	1,730	1,730	0.02	0.01	2.33	1,736
Vendor	0.03	0.02	1.13	0.30	0.01	0.01	0.35	0.36	0.01	0.10	0.11	—	1,028	1,028	< 0.005	0.15	1.00	1,075
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.50	0.49	0.33	4.67	0.00	0.00	1.84	1.84	0.00	0.43	0.43	—	1,558	1,558	0.02	0.01	0.06	1,563
Vendor	0.03	0.02	1.21	0.31	0.01	0.01	0.35	0.36	0.01	0.10	0.11	—	1,029	1,029	< 0.005	0.15	0.03	1,075
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28	0.27	0.15	2.67	0.00	0.00	1.03	1.03	0.00	0.24	0.24	—	894	894	0.01	0.01	0.57	897
Vendor	0.02	0.01	0.67	0.17	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	578	578	< 0.005	0.08	0.24	603
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.49	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	148	148	< 0.005	< 0.005	0.09	149
Vendor	< 0.005	< 0.005	0.12	0.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	95.7	95.7	< 0.005	0.01	0.04	99.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2036) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.18	1.58	8.32	0.01	0.04	—	0.04	0.04	—	0.04	—	1,346	1,346	0.05	0.01	—	1,351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	1.52	< 0.005	0.01	—	0.01	0.01	—	0.01	—	223	223	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.53	0.52	0.26	6.05	0.00	0.00	1.84	1.84	0.00	0.43	0.43	—	1,730	1,730	0.02	0.01	2.33	1,736
Vendor	0.03	0.02	1.13	0.30	0.01	0.01	0.35	0.36	0.01	0.10	0.11	—	1,028	1,028	< 0.005	0.15	1.00	1,075
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.50	0.49	0.33	4.67	0.00	0.00	1.84	1.84	0.00	0.43	0.43	—	1,558	1,558	0.02	0.01	0.06	1,563
Vendor	0.03	0.02	1.21	0.31	0.01	0.01	0.35	0.36	0.01	0.10	0.11	—	1,029	1,029	< 0.005	0.15	0.03	1,075
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28	0.27	0.15	2.67	0.00	0.00	1.03	1.03	0.00	0.24	0.24	—	894	894	0.01	0.01	0.57	897
Vendor	0.02	0.01	0.67	0.17	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	578	578	< 0.005	0.08	0.24	603

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.49	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	148	148	< 0.005	< 0.005	0.09	149
Vendor	< 0.005	< 0.005	0.12	0.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	95.7	95.7	< 0.005	0.01	0.04	99.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	0.53	5.62	9.78	0.01	0.14	—	0.14	0.13	—	0.13	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.22	0.38	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	57.9	57.9	< 0.005	< 0.005	—	58.1
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.59	9.59	< 0.005	< 0.005	—	9.63

Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.38	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	128	128	< 0.005	< 0.005	< 0.005	129
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.03	5.03	< 0.005	< 0.005	< 0.005	5.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.83	0.83	< 0.005	< 0.005	< 0.005	0.84
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2036) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.41	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	57.9	57.9	< 0.005	< 0.005	—	58.1
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.59	9.59	< 0.005	< 0.005	—	9.63
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.38	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	128	128	< 0.005	< 0.005	< 0.005	129
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.03	5.03	< 0.005	< 0.005	< 0.005	5.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.83	0.83	< 0.005	< 0.005	< 0.005	0.84
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.75	1.10	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	999	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.14
Architectural Coatings	—	38.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.85
Architectural Coatings	—	6.99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	0.07	0.93	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	312	312	< 0.005	< 0.005	0.01	313
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.2	12.2	< 0.005	< 0.005	0.01	12.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.02	2.02	< 0.005	< 0.005	< 0.005	2.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2036) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	39.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.14
Architectural Coatings	—	1.53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.85
Architectural Coatings	—	0.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	0.07	0.93	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	312	312	< 0.005	< 0.005	0.01	313
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.2	12.2	< 0.005	< 0.005	0.01	12.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.02	2.02	< 0.005	< 0.005	< 0.005	2.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2036	1/9/2036	5.00	7.00	—
Grading	Grading	1/10/2036	2/6/2036	5.00	20.0	—
Building Construction	Building Construction	2/7/2036	11/19/2036	5.00	205	—
Paving	Paving	11/20/2036	12/9/2036	5.00	14.0	—
Architectural Coating	Architectural Coating	12/10/2036	12/29/2036	5.00	14.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45

Building Construction	Tractors/Loaders/Backh	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	182	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	47.1	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2

Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	36.4	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	182	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	47.1	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—

Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	36.4	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	704,822	234,941	199,872	66,624	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	10.5	0.00	—
Grading	—	—	61.2	0.00	—
Paving	0.00	0.00	0.00	0.00	1.21

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Apartments Low Rise	—	0%
Single Family Housing	1.21	0%
General Office Building	0.00	0%
Strip Mall	0.00	0%
City Park	0.00	0%
Junior High School	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2036	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1

Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—

Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0

Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—

Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data 779 students for Middle School
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	A total of 71.7 acres to be graded for vertical construction.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 13 Detailed Report

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5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 13
Construction Start Date	1/1/2037
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	35.0	Dwelling Unit	4.10	37,100	0.00	—	89.0	—

Apartments Low Rise	72.0	Dwelling Unit	3.70	76,320	0.00	—	183	—
Single Family Housing	110	Dwelling Unit	38.4	214,500	1,288,414	—	279	—
General Office Building	41.7	1000sqft	4.60	41,667	0.00	—	—	—
Road Construction	2.50	Mile	1.50	0.00	0.00	—	—	—
City Park	6.40	Acre	6.40	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.96	3.39	22.7	45.8	0.09	0.63	5.15	5.79	0.58	0.82	1.40	—	11,165	11,165	0.38	0.18	2.49	11,231
Mit.	1.61	1.54	9.92	58.1	0.09	0.24	2.80	3.00	0.24	0.56	0.76	—	11,165	11,165	0.38	0.18	2.49	11,231
% Reduced	59%	55%	56%	-27%	—	61%	46%	48%	59%	31%	46%	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.31	803	30.1	53.1	0.12	1.03	20.0	20.8	0.94	10.2	10.9	—	13,641	13,641	0.54	0.18	0.06	13,688
Mit.	1.59	32.4	10.7	74.4	0.12	0.25	5.46	5.57	0.25	2.71	2.82	—	13,641	13,641	0.54	0.18	0.06	13,688
% Reduced	70%	96%	64%	-40%	—	76%	73%	73%	74%	73%	74%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.41	32.8	14.1	26.8	0.05	0.40	3.05	3.45	0.37	0.78	1.14	—	6,623	6,623	0.23	0.11	0.63	6,661
Mit.	0.93	2.14	5.93	34.2	0.05	0.13	1.65	1.78	0.13	0.41	0.54	—	6,623	6,623	0.23	0.11	0.63	6,661
% Reduced	62%	93%	58%	-28%	—	67%	46%	48%	64%	48%	53%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.44	5.99	2.57	4.88	0.01	0.07	0.56	0.63	0.07	0.14	0.21	—	1,096	1,096	0.04	0.02	0.10	1,103
Mit.	0.17	0.39	1.08	6.24	0.01	0.02	0.30	0.32	0.02	0.07	0.10	—	1,096	1,096	0.04	0.02	0.10	1,103
% Reduced	62%	93%	58%	-28%	—	67%	46%	48%	64%	48%	53%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2037	3.96	3.39	22.7	45.8	0.09	0.63	5.15	5.79	0.58	0.82	1.40	—	11,165	11,165	0.38	0.18	2.49	11,231
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2037	5.31	803	30.1	53.1	0.12	1.03	20.0	20.8	0.94	10.2	10.9	—	13,641	13,641	0.54	0.18	0.06	13,688

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2037	2.41	32.8	14.1	26.8	0.05	0.40	3.05	3.45	0.37	0.78	1.14	—	6,623	6,623	0.23	0.11	0.63	6,661
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2037	0.44	5.99	2.57	4.88	0.01	0.07	0.56	0.63	0.07	0.14	0.21	—	1,096	1,096	0.04	0.02	0.10	1,103

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2037	1.61	1.54	9.92	58.1	0.09	0.24	2.80	3.00	0.24	0.56	0.76	—	11,165	11,165	0.38	0.18	2.49	11,231
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2037	1.59	32.4	10.7	74.4	0.12	0.25	5.46	5.57	0.25	2.71	2.82	—	13,641	13,641	0.54	0.18	0.06	13,688
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2037	0.93	2.14	5.93	34.2	0.05	0.13	1.65	1.78	0.13	0.41	0.54	—	6,623	6,623	0.23	0.11	0.63	6,661
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2037	0.17	0.39	1.08	6.24	0.01	0.02	0.30	0.32	0.02	0.07	0.10	—	1,096	1,096	0.04	0.02	0.10	1,103

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	0.22	2.23	3.38	< 0.005	0.07	—	0.07	0.06	—	0.06	—	491	491	0.02	< 0.005	—	493
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.0	35.0	< 0.005	< 0.005	—	35.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.79	5.79	< 0.005	< 0.005	—	5.81
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.43	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	148	148	< 0.005	< 0.005	0.01	149
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.8	10.8	< 0.005	< 0.005	0.01	10.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.79	1.79	< 0.005	< 0.005	< 0.005	1.79
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Linear, Grubbing & Land Clearing (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.84	3.43	< 0.005	0.01	—	0.01	0.01	—	0.01	—	491	491	0.02	< 0.005	—	493
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.06	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.0	35.0	< 0.005	< 0.005	—	35.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.79	5.79	< 0.005	< 0.005	—	5.81

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.43	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	148	148	< 0.005	< 0.005	0.01	149
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.8	10.8	< 0.005	< 0.005	0.01	10.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.79	1.79	< 0.005	< 0.005	< 0.005	1.79
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Linear, Grading & Excavation (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.49	2.09	14.7	27.6	0.06	0.47	—	0.47	0.43	—	0.43	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.49	2.09	14.7	27.6	0.06	0.47	—	0.47	0.43	—	0.43	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	4.72	8.85	0.02	0.15	—	0.15	0.14	—	0.14	—	2,082	2,082	0.08	0.02	—	2,089
Dust From Material Movement	—	—	—	—	—	—	1.02	1.02	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.61	< 0.005	0.03	—	0.03	0.03	—	0.03	—	345	345	0.01	< 0.005	—	346
Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.02	0.02	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.12	0.06	1.36	0.00	0.00	0.43	0.43	0.00	0.10	0.10	—	400	400	< 0.005	< 0.005	0.47	401
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.0	21.0	< 0.005	< 0.005	0.02	22.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.11	0.06	1.05	0.00	0.00	0.43	0.43	0.00	0.10	0.10	—	360	360	0.01	< 0.005	0.01	361
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.0	21.0	< 0.005	< 0.005	< 0.005	22.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.02	0.34	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	118	118	< 0.005	< 0.005	0.07	118
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.73	6.73	< 0.005	< 0.005	< 0.005	7.04
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	19.5	19.5	< 0.005	< 0.005	0.01	19.6
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.11	1.11	< 0.005	< 0.005	< 0.005	1.17
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Linear, Grading & Excavation (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.66	6.16	37.5	0.06	0.12	—	0.12	0.12	—	0.12	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.66	6.16	37.5	0.06	0.12	—	0.12	0.12	—	0.12	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.21	1.98	12.0	0.02	0.04	—	0.04	0.04	—	0.04	—	2,082	2,082	0.08	0.02	—	2,089
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.36	2.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	345	345	0.01	< 0.005	—	346

Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.12	0.06	1.36	0.00	0.00	0.43	0.43	0.00	0.10	0.10	—	400	400	< 0.005	< 0.005	0.47	401
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.0	21.0	< 0.005	< 0.005	0.02	22.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.11	0.06	1.05	0.00	0.00	0.43	0.43	0.00	0.10	0.10	—	360	360	0.01	< 0.005	0.01	361
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.0	21.0	< 0.005	< 0.005	< 0.005	22.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.02	0.34	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	118	118	< 0.005	< 0.005	0.07	118
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.73	6.73	< 0.005	< 0.005	< 0.005	7.04
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	19.5	19.5	< 0.005	< 0.005	0.01	19.6
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.11	1.11	< 0.005	< 0.005	< 0.005	1.17
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Linear, Drainage, Utilities, & Sub-Grade (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.18	1.82	12.5	22.0	0.05	0.42	—	0.42	0.38	—	0.38	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.18	1.82	12.5	22.0	0.05	0.42	—	0.42	0.38	—	0.38	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	0.39	2.67	4.69	0.01	0.09	—	0.09	0.08	—	0.08	—	1,216	1,216	0.05	0.01	—	1,220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.49	0.86	< 0.005	0.02	—	0.02	0.01	—	0.01	—	201	201	0.01	< 0.005	—	202
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	0.05	1.20	0.00	0.00	0.38	0.38	0.00	0.09	0.09	—	353	353	< 0.005	< 0.005	0.42	354

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	0.06	0.92	0.00	0.00	0.38	0.38	0.00	0.09	0.09	—	318	318	< 0.005	< 0.005	0.01	319
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.20	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	69.4	69.4	< 0.005	< 0.005	0.04	69.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.01	11.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Linear, Drainage, Utilities, & Sub-Grade (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.74	5.10	31.6	0.05	0.17	—	0.17	0.16	—	0.16	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.74	5.10	31.6	0.05	0.17	—	0.17	0.16	—	0.16	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.16	1.09	6.75	0.01	0.04	—	0.04	0.03	—	0.03	—	1,216	1,216	0.05	0.01	—	1,220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.20	1.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	201	201	0.01	< 0.005	—	202
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	0.05	1.20	0.00	0.00	0.38	0.38	0.00	0.09	0.09	—	353	353	< 0.005	< 0.005	0.42	354
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.10	0.06	0.92	0.00	0.00	0.38	0.38	0.00	0.09	0.09	—	318	318	< 0.005	< 0.005	0.01	319
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02	0.02	0.01	0.20	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	69.4	69.4	< 0.005	< 0.005	0.04	69.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.01	11.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Linear, Paving (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69	0.58	5.98	10.6	0.01	0.12	—	0.12	0.11	—	0.11	—	1,619	1,619	0.07	0.01	—	1,624
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.64	1.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	173	173	0.01	< 0.005	—	174
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.12	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.6	28.6	< 0.005	< 0.005	—	28.7

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.05	0.74	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	254	254	< 0.005	< 0.005	0.01	255
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.08	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.8	27.8	< 0.005	< 0.005	0.02	27.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.59	4.59	< 0.005	< 0.005	< 0.005	4.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Linear, Paving (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.18	2.58	11.3	0.01	0.03	—	0.03	0.03	—	0.03	—	1,619	1,619	0.07	0.01	—	1,624
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.28	1.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	173	173	0.01	< 0.005	—	174
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.05	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.6	28.6	< 0.005	< 0.005	—	28.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.05	0.74	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	254	254	< 0.005	< 0.005	0.01	255
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.08	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.8	27.8	< 0.005	< 0.005	0.02	27.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.59	4.59	< 0.005	< 0.005	< 0.005	4.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Site Preparation (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.79	2.35	18.1	21.9	0.05	0.68	—	0.68	0.63	—	0.63	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.35	0.42	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.38	0.38	—	0.19	0.19	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.43	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	148	148	< 0.005	< 0.005	0.01	149
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.91	2.91	< 0.005	< 0.005	< 0.005	2.92
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.48	0.48	< 0.005	< 0.005	< 0.005	0.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Site Preparation (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.43	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	148	148	< 0.005	< 0.005	0.01	149
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.91	2.91	< 0.005	< 0.005	< 0.005	2.92
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.48	0.48	< 0.005	< 0.005	< 0.005	0.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Grading (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.66	2.23	15.3	23.9	0.06	0.56	—	0.56	0.51	—	0.51	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.84	1.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.15	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.49	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	170	170	< 0.005	< 0.005	0.01	170

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.49	9.49	< 0.005	< 0.005	0.01	9.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.57	1.57	< 0.005	< 0.005	< 0.005	1.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Grading (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.49	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	170	170	< 0.005	< 0.005	0.01	170
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.49	9.49	< 0.005	< 0.005	0.01	9.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.57	1.57	< 0.005	< 0.005	< 0.005	1.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.98	0.82	6.99	12.5	0.02	0.16	—	0.16	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.98	0.82	6.99	12.5	0.02	0.16	—	0.16	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	0.46	3.92	7.02	0.01	0.09	—	0.09	0.08	—	0.08	—	1,346	1,346	0.05	0.01	—	1,351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.10	0.08	0.72	1.28	< 0.005	0.02	—	0.02	0.01	—	0.01	—	223	223	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.35	0.18	4.16	0.00	0.00	1.31	1.31	0.00	0.31	0.31	—	1,223	1,223	0.01	0.01	1.45	1,227
Vendor	0.02	0.02	0.69	0.19	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	630	630	< 0.005	0.10	0.56	659
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.34	0.20	3.20	0.00	0.00	1.31	1.31	0.00	0.31	0.31	—	1,102	1,102	0.02	0.01	0.04	1,105
Vendor	0.02	0.01	0.74	0.20	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	630	630	< 0.005	0.10	0.01	659
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.19	0.11	1.84	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	632	632	0.01	< 0.005	0.35	634
Vendor	0.01	0.01	0.41	0.11	< 0.005	< 0.005	0.12	0.13	< 0.005	0.03	0.04	—	354	354	< 0.005	0.05	0.13	370
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.34	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	105	105	< 0.005	< 0.005	0.06	105
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	58.6	58.6	< 0.005	0.01	0.02	61.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Building Construction (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.18	1.58	8.32	0.01	0.04	—	0.04	0.04	—	0.04	—	1,346	1,346	0.05	0.01	—	1,351
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	1.52	< 0.005	0.01	—	0.01	0.01	—	0.01	—	223	223	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.35	0.18	4.16	0.00	0.00	1.31	1.31	0.00	0.31	0.31	—	1,223	1,223	0.01	0.01	1.45	1,227
Vendor	0.02	0.02	0.69	0.19	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	630	630	< 0.005	0.10	0.56	659
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.34	0.34	0.20	3.20	0.00	0.00	1.31	1.31	0.00	0.31	0.31	—	1,102	1,102	0.02	0.01	0.04	1,105
Vendor	0.02	0.01	0.74	0.20	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	630	630	< 0.005	0.10	0.01	659
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.19	0.11	1.84	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	632	632	0.01	< 0.005	0.35	634
Vendor	0.01	0.01	0.41	0.11	< 0.005	< 0.005	0.12	0.13	< 0.005	0.03	0.04	—	354	354	< 0.005	0.05	0.13	370
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.34	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	105	105	< 0.005	< 0.005	0.06	105
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	58.6	58.6	< 0.005	0.01	0.02	61.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Paving (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61	0.51	5.50	9.77	0.01	0.12	—	0.12	0.11	—	0.11	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.21	0.37	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	57.9	57.9	< 0.005	< 0.005	—	58.1
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.59	9.59	< 0.005	< 0.005	—	9.63
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.02	0.37	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	127	127	< 0.005	< 0.005	< 0.005	127
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.98	4.98	< 0.005	< 0.005	< 0.005	5.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.82	0.82	< 0.005	< 0.005	< 0.005	0.83

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Paving (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.41	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	57.9	57.9	< 0.005	< 0.005	—	58.1
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.59	9.59	< 0.005	< 0.005	—	9.63
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.02	0.37	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	127	127	< 0.005	< 0.005	< 0.005	127
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.98	4.98	< 0.005	< 0.005	< 0.005	5.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.82	0.82	< 0.005	< 0.005	< 0.005	0.83
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Architectural Coating (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.11	0.09	0.75	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	802	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.14
Architectural Coatings	—	30.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.85
Architectural Coatings	—	5.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.04	0.64	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	220	220	< 0.005	< 0.005	0.01	221
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.63	8.63	< 0.005	< 0.005	< 0.005	8.66
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.43	1.43	< 0.005	< 0.005	< 0.005	1.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Architectural Coating (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	32.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.14

Architect Coatings	—	1.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.85
Architectural Coatings	—	0.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.04	0.64	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	220	220	< 0.005	< 0.005	0.01	221
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.63	8.63	< 0.005	< 0.005	< 0.005	8.66
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.43	1.43	< 0.005	< 0.005	< 0.005	1.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	1/1/2037	2/5/2037	5.00	26.0	—
Linear, Grading & Excavation	Linear, Grading & Excavation	2/6/2037	7/20/2037	5.00	117	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	7/21/2037	11/5/2037	5.00	78.0	—
Linear, Paving	Linear, Paving	11/6/2037	12/30/2037	5.00	39.0	—
Site Preparation	Site Preparation	1/1/2037	1/11/2037	5.00	7.00	—

Grading	Grading	1/12/2037	2/8/2037	5.00	20.0	—
Building Construction	Building Construction	2/9/2037	11/22/2037	5.00	205	—
Paving	Paving	11/23/2037	12/10/2037	5.00	14.0	—
Architectural Coating	Architectural Coating	12/11/2037	12/30/2037	5.00	14.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	5.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	5.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	5.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	5.00	8.00	6.00	0.82
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	5.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Tier 4 Final	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Tier 4 Final	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Tier 4 Final	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	5.00	8.00	6.00	0.82

Linear, Grading & Excavation	Tractors/Loaders/Backh	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	5.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Tier 4 Final	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Tier 4 Final	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Tier 4 Final	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	5.00	8.00	6.00	0.82
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37

Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2

Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	130	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	30.0	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	26.0	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	17.5	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	42.5	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT

Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	37.5	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	30.0	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	130	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	30.0	8.80	HHDT,MHDT

Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	26.0	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	17.5	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	42.5	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	37.5	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT

Linear, Paving	—	—	—	—
Linear, Paving	Worker	30.0	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	664,038	221,346	62,501	20,834	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Linear, Grading & Excavation	—	—	1.50	0.00	—
Site Preparation	—	—	10.5	0.00	—
Grading	—	—	60.3	0.00	—
Paving	0.00	0.00	0.00	0.00	2.71

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Apartments Low Rise	—	0%
Single Family Housing	1.21	0%
General Office Building	0.00	0%
Road Construction	1.50	100%
City Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2037	587	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8

Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974

Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0

Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4

Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	Total 70.8 acres to be graded for vertical and 1.5 acres for linear.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 14 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 14
Construction Start Date	1/1/2038
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	0.00	Dwelling Unit	0.00	0.00	0.00	—	0.00	—

Apartments Low Rise	0.00	Dwelling Unit	0.00	0.00	0.00	—	0.00	—
Single Family Housing	110	Dwelling Unit	38.4	214,500	1,288,414	—	279	—
General Office Building	41.7	1000sqft	4.60	41,667	0.00	—	—	—
Strip Mall	0.00	1000sqft	0.00	0.00	0.00	—	—	—
City Park	6.40	Acre	6.40	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.12	0.96	7.36	14.2	0.03	0.16	0.67	0.83	0.14	0.16	0.31	—	3,265	3,265	0.10	0.08	0.81	3,292
Mit.	0.50	0.48	3.27	16.6	0.03	0.08	0.67	0.75	0.07	0.16	0.24	—	3,265	3,265	0.10	0.08	0.81	3,292
% Reduced	55%	50%	56%	-17%	—	51%	—	10%	48%	—	23%	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.70	512	16.5	23.6	0.06	0.61	19.8	20.4	0.56	10.1	10.7	—	6,764	6,764	0.27	0.08	0.02	6,787
Mit.	0.69	20.5	4.46	35.8	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,764	6,764	0.27	0.08	0.02	6,787
% Reduced	74%	96%	73%	-52%	—	80%	73%	74%	78%	74%	74%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.85	21.8	5.50	9.90	0.02	0.13	1.33	1.46	0.12	0.52	0.64	—	2,352	2,352	0.08	0.05	0.20	2,369
Mit.	0.33	1.16	2.24	12.1	0.02	0.05	0.64	0.69	0.05	0.21	0.26	—	2,352	2,352	0.08	0.05	0.20	2,369
% Reduced	61%	95%	59%	-22%	—	60%	52%	53%	58%	60%	60%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.16	3.97	1.00	1.81	< 0.005	0.02	0.24	0.27	0.02	0.09	0.12	—	389	389	0.01	0.01	0.03	392
Mit.	0.06	0.21	0.41	2.20	< 0.005	0.01	0.12	0.13	0.01	0.04	0.05	—	389	389	0.01	0.01	0.03	392
% Reduced	61%	95%	59%	-22%	—	60%	52%	53%	58%	60%	60%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2038	1.12	0.96	7.36	14.2	0.03	0.16	0.67	0.83	0.14	0.16	0.31	—	3,265	3,265	0.10	0.08	0.81	3,292
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2038	2.70	512	16.5	23.6	0.06	0.61	19.8	20.4	0.56	10.1	10.7	—	6,764	6,764	0.27	0.08	0.02	6,787

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2038	0.85	21.8	5.50	9.90	0.02	0.13	1.33	1.46	0.12	0.52	0.64	—	2,352	2,352	0.08	0.05	0.20	2,369
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2038	0.16	3.97	1.00	1.81	< 0.005	0.02	0.24	0.27	0.02	0.09	0.12	—	389	389	0.01	0.01	0.03	392

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2038	0.50	0.48	3.27	16.6	0.03	0.08	0.67	0.75	0.07	0.16	0.24	—	3,265	3,265	0.10	0.08	0.81	3,292
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2038	0.69	20.5	4.46	35.8	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,764	6,764	0.27	0.08	0.02	6,787
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2038	0.33	1.16	2.24	12.1	0.02	0.05	0.64	0.69	0.05	0.21	0.26	—	2,352	2,352	0.08	0.05	0.20	2,369
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2038	0.06	0.21	0.41	2.20	< 0.005	0.01	0.12	0.13	0.01	0.04	0.05	—	389	389	0.01	0.01	0.03	392

3. Construction Emissions Details

3.1. Site Preparation (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.65	2.23	16.5	20.3	0.05	0.61	—	0.61	0.56	—	0.56	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.36	0.45	< 0.005	0.01	—	0.01	0.01	—	0.01	—	116	116	< 0.005	< 0.005	—	116
Dust From Material Movement	—	—	—	—	—	—	0.43	0.43	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.41	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	147	147	< 0.005	< 0.005	< 0.005	147
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.29	3.29	< 0.005	< 0.005	< 0.005	3.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.55	0.55	< 0.005	< 0.005	< 0.005	0.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2038) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	0.21	0.04	—	5,314

Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	116	116	< 0.005	< 0.005	—	116
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.41	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	147	147	< 0.005	< 0.005	< 0.005	147
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.29	3.29	< 0.005	< 0.005	< 0.005	3.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.55	0.55	< 0.005	< 0.005	< 0.005	0.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.57	2.16	14.3	23.2	0.06	0.52	—	0.52	0.48	—	0.48	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	0.79	1.27	< 0.005	0.03	—	0.03	0.03	—	0.03	—	361	361	0.01	< 0.005	—	363

Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.14	0.23	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.47	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	168	168	< 0.005	< 0.005	0.01	169
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.41	9.41	< 0.005	< 0.005	< 0.005	9.44
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.56	1.56	< 0.005	< 0.005	< 0.005	1.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading (2038) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0

Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.47	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	168	168	< 0.005	< 0.005	0.01	169
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.41	9.41	< 0.005	< 0.005	< 0.005	9.44
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.56	1.56	< 0.005	< 0.005	< 0.005	1.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97	0.81	6.89	12.5	0.02	0.15	—	0.15	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97	0.81	6.89	12.5	0.02	0.15	—	0.15	0.14	—	0.14	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.45	3.81	6.90	0.01	0.08	—	0.08	0.08	—	0.08	—	1,326	1,326	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.70	1.26	< 0.005	0.02	—	0.02	0.01	—	0.01	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.14	0.06	1.63	0.00	0.00	0.53	0.53	0.00	0.13	0.13	—	494	494	< 0.005	< 0.005	0.51	495
Vendor	0.01	0.01	0.41	0.11	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	—	375	375	< 0.005	0.06	0.30	392
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.08	1.25	0.00	0.00	0.53	0.53	0.00	0.13	0.13	—	445	445	0.01	< 0.005	0.01	446
Vendor	0.01	0.01	0.43	0.12	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	—	375	375	< 0.005	0.06	0.01	392
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.04	0.71	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	251	251	< 0.005	< 0.005	0.12	252
Vendor	0.01	0.01	0.24	0.06	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	—	207	207	< 0.005	0.03	0.07	217
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	41.6	41.6	< 0.005	< 0.005	0.02	41.8
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.4	34.4	< 0.005	0.01	0.01	35.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2038) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.18	1.55	8.20	0.01	0.04	—	0.04	0.04	—	0.04	—	1,326	1,326	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	1.50	< 0.005	0.01	—	0.01	0.01	—	0.01	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.14	0.06	1.63	0.00	0.00	0.53	0.53	0.00	0.13	0.13	—	494	494	< 0.005	< 0.005	0.51	495
Vendor	0.01	0.01	0.41	0.11	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	—	375	375	< 0.005	0.06	0.30	392
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.08	1.25	0.00	0.00	0.53	0.53	0.00	0.13	0.13	—	445	445	0.01	< 0.005	0.01	446
Vendor	0.01	0.01	0.43	0.12	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	—	375	375	< 0.005	0.06	0.01	392
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.04	0.71	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	251	251	< 0.005	< 0.005	0.12	252
Vendor	0.01	0.01	0.24	0.06	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	—	207	207	< 0.005	0.03	0.07	217

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	41.6	41.6	< 0.005	< 0.005	0.02	41.8
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.4	34.4	< 0.005	0.01	0.01	35.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59	0.50	5.38	9.76	0.01	0.11	—	0.11	0.10	—	0.10	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.22	0.40	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3

Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.02	0.36	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	126	126	< 0.005	< 0.005	< 0.005	126
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.29	5.29	< 0.005	< 0.005	< 0.005	5.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.88	0.88	< 0.005	< 0.005	< 0.005	0.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2038) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.02	0.36	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	126	126	< 0.005	< 0.005	< 0.005	126
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.29	5.29	< 0.005	< 0.005	< 0.005	5.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.88	0.88	< 0.005	< 0.005	< 0.005	0.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2038) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.75	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	512	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	21.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	3.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.25	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	89.0	89.0	< 0.005	< 0.005	< 0.005	89.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.73	3.73	< 0.005	< 0.005	< 0.005	3.75
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.62	0.62	< 0.005	< 0.005	< 0.005	0.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2038) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	20.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.25	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	89.0	89.0	< 0.005	< 0.005	< 0.005	89.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.73	3.73	< 0.005	< 0.005	< 0.005	3.75
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.62	0.62	< 0.005	< 0.005	< 0.005	0.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2038	1/12/2038	5.00	8.00	—
Grading	Grading	1/13/2038	2/9/2038	5.00	20.0	—
Building Construction	Building Construction	2/10/2038	11/18/2038	5.00	202	—
Paving	Paving	11/19/2038	12/9/2038	5.00	15.0	—
Architectural Coating	Architectural Coating	12/10/2038	12/30/2038	5.00	15.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45

Building Construction	Tractors/Loaders/Backh	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	52.9	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	18.6	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2

Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	10.6	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	52.9	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	18.6	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—

Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	10.6	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	434,363	144,788	62,501	20,834	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	12.0	0.00	—
Grading	—	—	37.3	0.00	—
Paving	0.00	0.00	0.00	0.00	1.21

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Apartments Low Rise	—	0%
Single Family Housing	1.21	0%
General Office Building	0.00	0%
Strip Mall	0.00	0%
City Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2038	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1

Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—

Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0

Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—

Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data 779 students for Middle School
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	A total of 49.3 acres to be graded for vertical construction.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 15 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 15
Construction Start Date	1/1/2039
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	0.00	Dwelling Unit	0.00	0.00	0.00	—	0.00	—

Apartments Low Rise	0.00	Dwelling Unit	0.00	0.00	0.00	—	0.00	—
Single Family Housing	110	Dwelling Unit	38.4	214,500	1,288,414	—	279	—
General Office Building	41.7	1000sqft	4.60	41,667	0.00	—	—	—
Road Construction	0.80	Mile	3.70	0.00	0.00	—	—	—
City Park	6.40	Acre	6.40	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.58	3.03	20.9	42.1	0.09	0.57	4.19	4.75	0.52	0.59	1.11	—	10,062	10,062	0.37	0.13	0.99	10,112
Mit.	1.35	1.28	9.47	55.1	0.09	0.24	1.83	2.03	0.23	0.33	0.53	—	10,062	10,062	0.37	0.13	0.99	10,112
% Reduced	62%	58%	55%	-31%	—	57%	56%	57%	55%	43%	52%	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.04	513	27.6	50.9	0.12	0.91	19.9	20.6	0.84	10.2	10.8	—	13,547	13,547	0.54	0.13	0.03	13,594
Mit.	1.42	20.7	10.7	74.1	0.12	0.25	5.36	5.47	0.25	2.69	2.79	—	13,547	13,547	0.54	0.13	0.03	13,594
% Reduced	72%	96%	61%	-45%	—	73%	73%	73%	71%	74%	74%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.19	22.9	13.1	24.9	0.05	0.36	2.54	2.90	0.33	0.67	1.00	—	6,016	6,016	0.22	0.08	0.25	6,044
Mit.	0.78	1.60	5.66	32.7	0.05	0.13	1.10	1.23	0.13	0.28	0.41	—	6,016	6,016	0.22	0.08	0.25	6,044
% Reduced	65%	93%	57%	-32%	—	63%	57%	58%	61%	58%	59%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.40	4.18	2.38	4.54	0.01	0.07	0.46	0.53	0.06	0.12	0.18	—	996	996	0.04	0.01	0.04	1,001
Mit.	0.14	0.29	1.03	5.98	0.01	0.02	0.20	0.22	0.02	0.05	0.07	—	996	996	0.04	0.01	0.04	1,001
% Reduced	65%	93%	57%	-32%	—	63%	57%	58%	61%	58%	59%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2039	3.58	3.03	20.9	42.1	0.09	0.57	4.19	4.75	0.52	0.59	1.11	—	10,062	10,062	0.37	0.13	0.99	10,112
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2039	5.04	513	27.6	50.9	0.12	0.91	19.9	20.6	0.84	10.2	10.8	—	13,547	13,547	0.54	0.13	0.03	13,594

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2039	2.19	22.9	13.1	24.9	0.05	0.36	2.54	2.90	0.33	0.67	1.00	—	6,016	6,016	0.22	0.08	0.25	6,044
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2039	0.40	4.18	2.38	4.54	0.01	0.07	0.46	0.53	0.06	0.12	0.18	—	996	996	0.04	0.01	0.04	1,001

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2039	1.35	1.28	9.47	55.1	0.09	0.24	1.83	2.03	0.23	0.33	0.53	—	10,062	10,062	0.37	0.13	0.99	10,112
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2039	1.42	20.7	10.7	74.1	0.12	0.25	5.36	5.47	0.25	2.69	2.79	—	13,547	13,547	0.54	0.13	0.03	13,594
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2039	0.78	1.60	5.66	32.7	0.05	0.13	1.10	1.23	0.13	0.28	0.41	—	6,016	6,016	0.22	0.08	0.25	6,044
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2039	0.14	0.29	1.03	5.98	0.01	0.02	0.20	0.22	0.02	0.05	0.07	—	996	996	0.04	0.01	0.04	1,001

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	2.10	3.37	< 0.005	0.06	—	0.06	0.05	—	0.05	—	491	491	0.02	< 0.005	—	493
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.0	35.0	< 0.005	< 0.005	—	35.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.79	5.79	< 0.005	< 0.005	—	5.81
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.17	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	62.5	62.5	< 0.005	< 0.005	< 0.005	62.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.55	4.55	< 0.005	< 0.005	< 0.005	4.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.75	0.75	< 0.005	< 0.005	< 0.005	0.76
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Linear, Grubbing & Land Clearing (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.84	3.43	< 0.005	0.01	—	0.01	0.01	—	0.01	—	491	491	0.02	< 0.005	—	493
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.06	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.0	35.0	< 0.005	< 0.005	—	35.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.79	5.79	< 0.005	< 0.005	—	5.81

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.17	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	62.5	62.5	< 0.005	< 0.005	< 0.005	62.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.55	4.55	< 0.005	< 0.005	< 0.005	4.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.75	0.75	< 0.005	< 0.005	< 0.005	0.76
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Linear, Grading & Excavation (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.38	2.00	13.7	27.0	0.06	0.42	—	0.42	0.38	—	0.38	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.38	2.00	13.7	27.0	0.06	0.42	—	0.42	0.38	—	0.38	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	0.64	4.38	8.66	0.02	0.13	—	0.13	0.12	—	0.12	—	2,082	2,082	0.08	0.02	—	2,089
Dust From Material Movement	—	—	—	—	—	—	1.02	1.02	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	0.80	1.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	345	345	0.01	< 0.005	—	346
Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.02	0.02	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.03	0.98	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	301	301	< 0.005	< 0.005	0.27	302
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.4	19.4	< 0.005	< 0.005	0.01	20.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.75	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	271	271	< 0.005	< 0.005	0.01	272
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.4	19.4	< 0.005	< 0.005	< 0.005	20.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.01	0.25	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	88.7	88.7	< 0.005	< 0.005	0.04	89.0
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.22	6.22	< 0.005	< 0.005	< 0.005	6.50
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	14.7	14.7	< 0.005	< 0.005	0.01	14.7
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.03	1.03	< 0.005	< 0.005	< 0.005	1.08
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Linear, Grading & Excavation (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.66	6.16	37.5	0.06	0.12	—	0.12	0.12	—	0.12	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.66	6.16	37.5	0.06	0.12	—	0.12	0.12	—	0.12	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.21	1.98	12.0	0.02	0.04	—	0.04	0.04	—	0.04	—	2,082	2,082	0.08	0.02	—	2,089
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.36	2.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	345	345	0.01	< 0.005	—	346

Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.03	0.98	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	301	301	< 0.005	< 0.005	0.27	302
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.4	19.4	< 0.005	< 0.005	0.01	20.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.75	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	271	271	< 0.005	< 0.005	0.01	272
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.4	19.4	< 0.005	< 0.005	< 0.005	20.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.01	0.25	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	88.7	88.7	< 0.005	< 0.005	0.04	89.0
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.22	6.22	< 0.005	< 0.005	< 0.005	6.50
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	14.7	14.7	< 0.005	< 0.005	0.01	14.7
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.03	1.03	< 0.005	< 0.005	< 0.005	1.08
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Linear, Drainage, Utilities, & Sub-Grade (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.11	1.76	11.7	21.4	0.05	0.38	—	0.38	0.35	—	0.35	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.11	1.76	11.7	21.4	0.05	0.38	—	0.38	0.35	—	0.35	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.49	4.57	0.01	0.08	—	0.08	0.08	—	0.08	—	1,216	1,216	0.05	0.01	—	1,220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.45	0.83	< 0.005	0.01	—	0.01	0.01	—	0.01	—	201	201	0.01	< 0.005	—	202
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.03	0.83	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	254	254	< 0.005	< 0.005	0.23	255

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.04	0.63	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	229	229	< 0.005	< 0.005	0.01	230
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	50.1	50.1	< 0.005	< 0.005	0.02	50.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.29	8.29	< 0.005	< 0.005	< 0.005	8.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Linear, Drainage, Utilities, & Sub-Grade (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.74	5.10	31.6	0.05	0.17	—	0.17	0.16	—	0.16	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.74	5.10	31.6	0.05	0.17	—	0.17	0.16	—	0.16	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.16	1.09	6.75	0.01	0.04	—	0.04	0.03	—	0.03	—	1,216	1,216	0.05	0.01	—	1,220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.20	1.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	201	201	0.01	< 0.005	—	202
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.03	0.83	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	254	254	< 0.005	< 0.005	0.23	255
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.04	0.63	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	229	229	< 0.005	< 0.005	0.01	230
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	50.1	50.1	< 0.005	< 0.005	0.02	50.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.29	8.29	< 0.005	< 0.005	< 0.005	8.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Linear, Paving (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.55	5.82	10.6	0.01	0.10	—	0.10	0.09	—	0.09	—	1,619	1,619	0.07	0.01	—	1,624
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.62	1.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	173	173	0.01	< 0.005	—	174
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.6	28.6	< 0.005	< 0.005	—	28.7

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.46	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	167	167	< 0.005	< 0.005	< 0.005	167
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.05	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	18.2	18.2	< 0.005	< 0.005	0.01	18.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.01	3.01	< 0.005	< 0.005	< 0.005	3.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Linear, Paving (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.18	2.58	11.3	0.01	0.03	—	0.03	0.03	—	0.03	—	1,619	1,619	0.07	0.01	—	1,624
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.28	1.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	173	173	0.01	< 0.005	—	174
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.05	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.6	28.6	< 0.005	< 0.005	—	28.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.46	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	167	167	< 0.005	< 0.005	< 0.005	167
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.05	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	18.2	18.2	< 0.005	< 0.005	0.01	18.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.01	3.01	< 0.005	< 0.005	< 0.005	3.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Site Preparation (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.60	2.19	16.0	20.0	0.05	0.59	—	0.59	0.54	—	0.54	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.35	0.44	< 0.005	0.01	—	0.01	0.01	—	0.01	—	116	116	< 0.005	< 0.005	—	116
Dust From Material Movement	—	—	—	—	—	—	0.43	0.43	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.40	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	146	146	< 0.005	< 0.005	< 0.005	146
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.27	3.27	< 0.005	< 0.005	< 0.005	3.28
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.54	0.54	< 0.005	< 0.005	< 0.005	0.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Site Preparation (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	116	116	< 0.005	< 0.005	—	116
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.40	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	146	146	< 0.005	< 0.005	< 0.005	146
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.27	3.27	< 0.005	< 0.005	< 0.005	3.28
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.54	0.54	< 0.005	< 0.005	< 0.005	0.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Grading (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.52	2.12	13.8	22.7	0.06	0.50	—	0.50	0.46	—	0.46	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	0.76	1.24	< 0.005	0.03	—	0.03	0.02	—	0.02	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.14	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.46	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	167	167	< 0.005	< 0.005	< 0.005	167

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.33	9.33	< 0.005	< 0.005	< 0.005	9.36
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.55	1.55	< 0.005	< 0.005	< 0.005	1.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Grading (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.46	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	167	167	< 0.005	< 0.005	< 0.005	167
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.33	9.33	< 0.005	< 0.005	< 0.005	9.36
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.55	1.55	< 0.005	< 0.005	< 0.005	1.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.96	0.80	6.78	12.4	0.02	0.15	—	0.15	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.96	0.80	6.78	12.4	0.02	0.15	—	0.15	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	0.45	3.75	6.87	0.01	0.08	—	0.08	0.07	—	0.07	—	1,326	1,326	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.10	0.08	0.68	1.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.06	1.59	0.00	0.00	0.53	0.53	0.00	0.13	0.13	—	490	490	< 0.005	< 0.005	0.44	491
Vendor	0.01	0.01	0.39	0.11	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	—	361	361	< 0.005	0.05	0.26	377
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.11	0.08	1.22	0.00	0.00	0.53	0.53	0.00	0.13	0.13	—	441	441	0.01	< 0.005	0.01	443
Vendor	0.01	0.01	0.41	0.12	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	—	361	361	< 0.005	0.05	0.01	377
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.04	0.69	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	250	250	< 0.005	< 0.005	0.11	250
Vendor	0.01	0.01	0.22	0.06	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	—	200	200	< 0.005	0.03	0.06	208
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	41.3	41.3	< 0.005	< 0.005	0.02	41.4
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	33.1	33.1	< 0.005	< 0.005	0.01	34.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Building Construction (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.18	1.55	8.20	0.01	0.04	—	0.04	0.04	—	0.04	—	1,326	1,326	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	1.50	< 0.005	0.01	—	0.01	0.01	—	0.01	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.06	1.59	0.00	0.00	0.53	0.53	0.00	0.13	0.13	—	490	490	< 0.005	< 0.005	0.44	491
Vendor	0.01	0.01	0.39	0.11	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	—	361	361	< 0.005	0.05	0.26	377
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.11	0.08	1.22	0.00	0.00	0.53	0.53	0.00	0.13	0.13	—	441	441	0.01	< 0.005	0.01	443
Vendor	0.01	0.01	0.41	0.12	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	—	361	361	< 0.005	0.05	0.01	377
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.04	0.69	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	250	250	< 0.005	< 0.005	0.11	250
Vendor	0.01	0.01	0.22	0.06	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	—	200	200	< 0.005	0.03	0.06	208
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	41.3	41.3	< 0.005	< 0.005	0.02	41.4
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	33.1	33.1	< 0.005	< 0.005	0.01	34.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Paving (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	0.49	5.31	9.75	0.01	0.11	—	0.11	0.10	—	0.10	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.22	0.40	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.35	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	125	125	< 0.005	< 0.005	< 0.005	125
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.25	5.25	< 0.005	< 0.005	< 0.005	5.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.87

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Paving (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.35	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	125	125	< 0.005	< 0.005	< 0.005	125
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.25	5.25	< 0.005	< 0.005	< 0.005	5.27
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Architectural Coating (2039) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.11	0.09	0.74	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	512	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	21.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	3.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.24	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	88.3	88.3	< 0.005	< 0.005	< 0.005	88.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.71	3.71	< 0.005	< 0.005	< 0.005	3.72
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.61	0.61	< 0.005	< 0.005	< 0.005	0.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Architectural Coating (2039) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	20.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51

Architect Coatings	—	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.02	0.24	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	88.3	88.3	< 0.005	< 0.005	< 0.005	88.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.71	3.71	< 0.005	< 0.005	< 0.005	3.72
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.61	0.61	< 0.005	< 0.005	< 0.005	0.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	1/1/2039	2/7/2039	5.00	26.0	—
Linear, Grading & Excavation	Linear, Grading & Excavation	2/8/2039	7/20/2039	5.00	117	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	7/21/2039	11/7/2039	5.00	78.0	—
Linear, Paving	Linear, Paving	11/8/2039	12/30/2039	5.00	39.0	—
Site Preparation	Site Preparation	1/1/2039	1/12/2039	5.00	8.00	—

Grading	Grading	1/13/2039	2/9/2039	5.00	20.0	—
Building Construction	Building Construction	2/10/2039	11/18/2039	5.00	202	—
Paving	Paving	11/19/2039	12/9/2039	5.00	15.0	—
Architectural Coating	Architectural Coating	12/10/2039	12/30/2039	5.00	15.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Tier 4 Final	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Tier 4 Final	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Tier 4 Final	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82

Linear, Grading & Excavation	Tractors/Loaders/Backh	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Tier 4 Final	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Tier 4 Final	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Tier 4 Final	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37

Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2

Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	52.9	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	18.6	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	10.6	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	7.50	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	32.5	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT

Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	27.5	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	20.0	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	52.9	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	18.6	8.80	HHDT,MHDT

Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	10.6	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	7.50	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	32.5	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	27.5	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT

Linear, Paving	—	—	—	—
Linear, Paving	Worker	20.0	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	434,363	144,788	62,501	20,834	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Linear, Grading & Excavation	—	—	3.70	0.00	—
Site Preparation	—	—	12.0	0.00	—
Grading	—	—	37.3	0.00	—
Paving	0.00	0.00	0.00	0.00	4.91

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Apartments Low Rise	—	0%
Single Family Housing	1.21	0%
General Office Building	0.00	0%
Road Construction	3.70	100%
City Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2039	117	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8

Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974

Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0

Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4

Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	Total 49.3 acres to be graded for vertical and 3.7 acres for linear.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 16 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 16
Construction Start Date	1/1/2040
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	0.00	Dwelling Unit	0.00	0.00	0.00	—	0.00	—

Apartments Low Rise	0.00	Dwelling Unit	0.00	0.00	0.00	—	0.00	—
Single Family Housing	105	Dwelling Unit	38.4	204,750	1,229,850	—	267	—
General Office Building	0.00	1000sqft	0.00	0.00	0.00	—	—	—
Strip Mall	33.3	1000sqft	5.30	33,332	0.00	—	—	—
City Park	0.00	Acre	0.00	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.08	0.91	7.09	13.9	0.03	0.14	0.61	0.76	0.13	0.15	0.28	—	3,154	3,154	0.10	0.07	0.55	3,178
Mit.	0.48	0.44	3.19	16.3	0.03	0.08	0.61	0.69	0.07	0.15	0.22	—	3,154	3,154	0.10	0.07	0.55	3,178
% Reduced	56%	52%	55%	-17%	—	48%	—	9%	45%	—	21%	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.62	479	16.0	22.9	0.06	0.58	19.8	20.4	0.53	10.1	10.7	—	6,762	6,762	0.27	0.07	0.01	6,785
Mit.	0.69	19.2	4.45	35.8	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,762	6,762	0.27	0.07	0.01	6,785
% Reduced	74%	96%	72%	-56%	—	79%	73%	74%	77%	74%	74%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.82	20.4	5.28	9.70	0.02	0.12	1.30	1.42	0.11	0.51	0.62	—	2,292	2,292	0.08	0.04	0.14	2,307
Mit.	0.32	1.08	2.19	12.0	0.02	0.05	0.61	0.66	0.05	0.20	0.25	—	2,292	2,292	0.08	0.04	0.14	2,307
% Reduced	61%	95%	58%	-23%	—	58%	53%	54%	55%	61%	60%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.15	3.72	0.96	1.77	< 0.005	0.02	0.24	0.26	0.02	0.09	0.11	—	380	380	0.01	0.01	0.02	382
Mit.	0.06	0.20	0.40	2.18	< 0.005	0.01	0.11	0.12	0.01	0.04	0.05	—	380	380	0.01	0.01	0.02	382
% Reduced	61%	95%	58%	-23%	—	58%	53%	54%	55%	61%	60%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2040	1.08	0.91	7.09	13.9	0.03	0.14	0.61	0.76	0.13	0.15	0.28	—	3,154	3,154	0.10	0.07	0.55	3,178
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2040	2.62	479	16.0	22.9	0.06	0.58	19.8	20.4	0.53	10.1	10.7	—	6,762	6,762	0.27	0.07	0.01	6,785

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2040	0.82	20.4	5.28	9.70	0.02	0.12	1.30	1.42	0.11	0.51	0.62	—	2,292	2,292	0.08	0.04	0.14	2,307
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2040	0.15	3.72	0.96	1.77	< 0.005	0.02	0.24	0.26	0.02	0.09	0.11	—	380	380	0.01	0.01	0.02	382

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2040	0.48	0.44	3.19	16.3	0.03	0.08	0.61	0.69	0.07	0.15	0.22	—	3,154	3,154	0.10	0.07	0.55	3,178
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2040	0.69	19.2	4.45	35.8	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,762	6,762	0.27	0.07	0.01	6,785
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2040	0.32	1.08	2.19	12.0	0.02	0.05	0.61	0.66	0.05	0.20	0.25	—	2,292	2,292	0.08	0.04	0.14	2,307
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2040	0.06	0.20	0.40	2.18	< 0.005	0.01	0.11	0.12	0.01	0.04	0.05	—	380	380	0.01	0.01	0.02	382

3. Construction Emissions Details

3.1. Site Preparation (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.58	2.17	15.9	19.8	0.05	0.58	—	0.58	0.53	—	0.53	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.35	0.44	< 0.005	0.01	—	0.01	0.01	—	0.01	—	116	116	< 0.005	< 0.005	—	116
Dust From Material Movement	—	—	—	—	—	—	0.43	0.43	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.39	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	145	145	< 0.005	< 0.005	< 0.005	145
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.24	3.24	< 0.005	< 0.005	< 0.005	3.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.54	0.54	< 0.005	< 0.005	< 0.005	0.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2040) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	0.21	0.04	—	5,314

Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	116	116	< 0.005	< 0.005	—	116
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.39	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	145	145	< 0.005	< 0.005	< 0.005	145
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.24	3.24	< 0.005	< 0.005	< 0.005	3.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.54	0.54	< 0.005	< 0.005	< 0.005	0.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.49	2.10	13.5	22.5	0.06	0.48	—	0.48	0.44	—	0.44	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.74	1.23	< 0.005	0.03	—	0.03	0.02	—	0.02	—	361	361	0.01	< 0.005	—	363

Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.13	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.44	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	166	166	< 0.005	< 0.005	< 0.005	166
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.27	9.27	< 0.005	< 0.005	< 0.005	9.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.53	1.53	< 0.005	< 0.005	< 0.005	1.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading (2040) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0

Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.44	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	166	166	< 0.005	< 0.005	< 0.005	166
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.27	9.27	< 0.005	< 0.005	< 0.005	9.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.53	1.53	< 0.005	< 0.005	< 0.005	1.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.96	0.80	6.71	12.4	0.02	0.14	—	0.14	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.96	0.80	6.71	12.4	0.02	0.14	—	0.14	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	0.44	3.71	6.86	0.01	0.08	—	0.08	0.07	—	0.07	—	1,326	1,326	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.68	1.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.10	0.05	1.42	0.00	0.00	0.49	0.49	0.00	0.11	0.11	—	445	445	< 0.005	< 0.005	0.35	447
Vendor	0.01	0.01	0.33	0.10	< 0.005	< 0.005	0.12	0.13	< 0.005	0.03	0.04	—	312	312	< 0.005	0.05	0.21	326
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.07	1.07	0.00	0.00	0.49	0.49	0.00	0.11	0.11	—	401	401	0.01	< 0.005	0.01	402
Vendor	0.01	0.01	0.35	0.10	< 0.005	< 0.005	0.12	0.13	< 0.005	0.03	0.04	—	312	312	< 0.005	0.05	0.01	326
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.61	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	227	227	< 0.005	< 0.005	0.08	228
Vendor	0.01	< 0.005	0.19	0.06	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	173	173	< 0.005	0.03	0.05	181
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	37.6	37.6	< 0.005	< 0.005	0.01	37.7
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.6	28.6	< 0.005	< 0.005	0.01	29.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2040) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.18	1.55	8.20	0.01	0.04	—	0.04	0.04	—	0.04	—	1,326	1,326	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	1.50	< 0.005	0.01	—	0.01	0.01	—	0.01	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.10	0.05	1.42	0.00	0.00	0.49	0.49	0.00	0.11	0.11	—	445	445	< 0.005	< 0.005	0.35	447
Vendor	0.01	0.01	0.33	0.10	< 0.005	< 0.005	0.12	0.13	< 0.005	0.03	0.04	—	312	312	< 0.005	0.05	0.21	326
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.07	1.07	0.00	0.00	0.49	0.49	0.00	0.11	0.11	—	401	401	0.01	< 0.005	0.01	402
Vendor	0.01	0.01	0.35	0.10	< 0.005	< 0.005	0.12	0.13	< 0.005	0.03	0.04	—	312	312	< 0.005	0.05	0.01	326
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.61	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	227	227	< 0.005	< 0.005	0.08	228
Vendor	0.01	< 0.005	0.19	0.06	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	173	173	< 0.005	0.03	0.05	181

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	37.6	37.6	< 0.005	< 0.005	0.01	37.7
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.6	28.6	< 0.005	< 0.005	0.01	29.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	0.49	5.27	9.75	0.01	0.11	—	0.11	0.10	—	0.10	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.22	0.40	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3

Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.33	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	124	124	< 0.005	< 0.005	< 0.005	125
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.21	5.21	< 0.005	< 0.005	< 0.005	5.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2040) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.33	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	124	124	< 0.005	< 0.005	< 0.005	125
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.21	5.21	< 0.005	< 0.005	< 0.005	5.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2040) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.74	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	479	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	19.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	3.59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.21	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	80.3	80.3	< 0.005	< 0.005	< 0.005	80.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.37	3.37	< 0.005	< 0.005	< 0.005	3.38
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.56	0.56	< 0.005	< 0.005	< 0.005	0.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2040) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	19.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	0.79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.21	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	80.3	80.3	< 0.005	< 0.005	< 0.005	80.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.37	3.37	< 0.005	< 0.005	< 0.005	3.38
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.56	0.56	< 0.005	< 0.005	< 0.005	0.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2040	1/11/2040	5.00	8.00	—
Grading	Grading	1/12/2040	2/8/2040	5.00	20.0	—
Building Construction	Building Construction	2/9/2040	11/18/2040	5.00	202	—
Paving	Paving	11/19/2040	12/7/2040	5.00	15.0	—
Architectural Coating	Architectural Coating	12/10/2040	12/30/2040	5.00	15.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45

Building Construction	Tractors/Loaders/Backh	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	48.5	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	16.7	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2

Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	9.69	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	48.5	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	16.7	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—

Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	9.69	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	414,619	138,206	49,998	16,666	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	12.0	0.00	—
Grading	—	—	30.0	0.00	—
Paving	0.00	0.00	0.00	0.00	1.16

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Apartments Low Rise	—	0%
Single Family Housing	1.16	0%
General Office Building	0.00	0%
Strip Mall	0.00	0%
City Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2040	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1

Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—

Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0

Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—

Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data.
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	A total of 42 acres to be graded for vertical construction.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 17 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 17
Construction Start Date	1/1/2041
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	42.0	Dwelling Unit	4.90	44,520	0.00	—	107	—

Apartments Low Rise	0.00	Dwelling Unit	0.00	0.00	0.00	—	0.00	—
Single Family Housing	104	Dwelling Unit	36.3	202,800	1,218,137	—	264	—
General Office Building	0.00	1000sqft	0.00	0.00	0.00	—	—	—
Road Construction	0.50	Mile	2.50	0.00	0.00	—	—	—
City Park	6.40	Acre	6.40	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.51	2.95	20.1	41.9	0.09	0.53	4.32	4.84	0.48	0.61	1.10	—	10,105	10,105	0.37	0.12	0.80	10,152
Mit.	1.36	1.26	9.39	55.3	0.09	0.24	1.96	2.16	0.23	0.36	0.56	—	10,105	10,105	0.37	0.12	0.80	10,152
% Reduced	61%	57%	53%	-32%	—	54%	55%	55%	52%	41%	49%	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.87	517	26.0	49.8	0.12	0.83	19.9	20.5	0.76	10.2	10.7	—	13,540	13,540	0.54	0.12	0.02	13,587
Mit.	1.42	20.9	10.7	74.0	0.12	0.25	5.36	5.47	0.25	2.69	2.79	—	13,540	13,540	0.54	0.12	0.02	13,587
% Reduced	71%	96%	59%	-49%	—	70%	73%	73%	68%	74%	74%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.15	23.0	12.5	24.7	0.05	0.33	2.61	2.95	0.31	0.69	0.99	—	6,035	6,035	0.22	0.07	0.20	6,062
Mit.	0.78	1.61	5.60	32.9	0.05	0.13	1.17	1.30	0.13	0.30	0.42	—	6,035	6,035	0.22	0.07	0.20	6,062
% Reduced	64%	93%	55%	-33%	—	61%	55%	56%	58%	57%	57%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.39	4.20	2.28	4.50	0.01	0.06	0.48	0.54	0.06	0.13	0.18	—	999	999	0.04	0.01	0.03	1,004
Mit.	0.14	0.29	1.02	6.00	0.01	0.02	0.21	0.24	0.02	0.05	0.08	—	999	999	0.04	0.01	0.03	1,004
% Reduced	64%	93%	55%	-33%	—	61%	55%	56%	58%	57%	57%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2041	3.51	2.95	20.1	41.9	0.09	0.53	4.32	4.84	0.48	0.61	1.10	—	10,105	10,105	0.37	0.12	0.80	10,152
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2041	4.87	517	26.0	49.8	0.12	0.83	19.9	20.5	0.76	10.2	10.7	—	13,540	13,540	0.54	0.12	0.02	13,587

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2041	2.15	23.0	12.5	24.7	0.05	0.33	2.61	2.95	0.31	0.69	0.99	—	6,035	6,035	0.22	0.07	0.20	6,062
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2041	0.39	4.20	2.28	4.50	0.01	0.06	0.48	0.54	0.06	0.13	0.18	—	999	999	0.04	0.01	0.03	1,004

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2041	1.36	1.26	9.39	55.3	0.09	0.24	1.96	2.16	0.23	0.36	0.56	—	10,105	10,105	0.37	0.12	0.80	10,152
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2041	1.42	20.9	10.7	74.0	0.12	0.25	5.36	5.47	0.25	2.69	2.79	—	13,540	13,540	0.54	0.12	0.02	13,587
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2041	0.78	1.61	5.60	32.9	0.05	0.13	1.17	1.30	0.13	0.30	0.42	—	6,035	6,035	0.22	0.07	0.20	6,062
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2041	0.14	0.29	1.02	6.00	0.01	0.02	0.21	0.24	0.02	0.05	0.08	—	999	999	0.04	0.01	0.03	1,004

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.21	2.03	3.36	< 0.005	0.05	—	0.05	0.05	—	0.05	—	491	491	0.02	< 0.005	—	493
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.14	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.0	35.0	< 0.005	< 0.005	—	35.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.79	5.79	< 0.005	< 0.005	—	5.81
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.16	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	61.7	61.7	< 0.005	< 0.005	< 0.005	61.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.49	4.49	< 0.005	< 0.005	< 0.005	4.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.74	0.74	< 0.005	< 0.005	< 0.005	0.75
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Linear, Grubbing & Land Clearing (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.84	3.43	< 0.005	0.01	—	0.01	0.01	—	0.01	—	491	491	0.02	< 0.005	—	493
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.06	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.0	35.0	< 0.005	< 0.005	—	35.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.79	5.79	< 0.005	< 0.005	—	5.81

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.16	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	61.7	61.7	< 0.005	< 0.005	< 0.005	61.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.49	4.49	< 0.005	< 0.005	< 0.005	4.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.74	0.74	< 0.005	< 0.005	< 0.005	0.75
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Linear, Grading & Excavation (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.32	1.95	13.0	26.6	0.06	0.38	—	0.38	0.35	—	0.35	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.32	1.95	13.0	26.6	0.06	0.38	—	0.38	0.35	—	0.35	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	0.63	4.17	8.53	0.02	0.12	—	0.12	0.11	—	0.11	—	2,082	2,082	0.08	0.02	—	2,089
Dust From Material Movement	—	—	—	—	—	—	1.02	1.02	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.76	1.56	< 0.005	0.02	—	0.02	0.02	—	0.02	—	345	345	0.01	< 0.005	—	346
Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.02	0.02	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.06	0.03	0.93	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	297	297	< 0.005	< 0.005	0.20	298
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.0	18.0	< 0.005	< 0.005	0.01	18.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.70	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	267	267	< 0.005	< 0.005	0.01	268
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.0	18.0	< 0.005	< 0.005	< 0.005	18.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.23	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	87.6	87.6	< 0.005	< 0.005	0.03	87.8
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.78	5.78	< 0.005	< 0.005	< 0.005	6.03
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	14.5	14.5	< 0.005	< 0.005	< 0.005	14.5
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.96	0.96	< 0.005	< 0.005	< 0.005	1.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Linear, Grading & Excavation (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.66	6.16	37.5	0.06	0.12	—	0.12	0.12	—	0.12	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.66	0.66	6.16	37.5	0.06	0.12	—	0.12	0.12	—	0.12	—	6,494	6,494	0.26	0.05	—	6,516
Dust From Material Movement	—	—	—	—	—	—	0.83	0.83	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.21	1.98	12.0	0.02	0.04	—	0.04	0.04	—	0.04	—	2,082	2,082	0.08	0.02	—	2,089
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.36	2.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	345	345	0.01	< 0.005	—	346

Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.06	0.03	0.93	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	297	297	< 0.005	< 0.005	0.20	298
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.0	18.0	< 0.005	< 0.005	0.01	18.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.70	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	267	267	< 0.005	< 0.005	0.01	268
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.0	18.0	< 0.005	< 0.005	< 0.005	18.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.23	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	87.6	87.6	< 0.005	< 0.005	0.03	87.8
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.78	5.78	< 0.005	< 0.005	< 0.005	6.03
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	14.5	14.5	< 0.005	< 0.005	< 0.005	14.5
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.96	0.96	< 0.005	< 0.005	< 0.005	1.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Linear, Drainage, Utilities, & Sub-Grade (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.06	1.73	11.2	21.0	0.05	0.36	—	0.36	0.33	—	0.33	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.06	1.73	11.2	21.0	0.05	0.36	—	0.36	0.33	—	0.33	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	0.37	2.39	4.49	0.01	0.08	—	0.08	0.07	—	0.07	—	1,216	1,216	0.05	0.01	—	1,220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.44	0.82	< 0.005	0.01	—	0.01	0.01	—	0.01	—	201	201	0.01	< 0.005	—	202
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.03	0.78	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	251	251	< 0.005	< 0.005	0.17	252

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.59	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	226	226	< 0.005	< 0.005	< 0.005	227
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	49.4	49.4	< 0.005	< 0.005	0.02	49.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.18	8.18	< 0.005	< 0.005	< 0.005	8.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Linear, Drainage, Utilities, & Sub-Grade (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.74	5.10	31.6	0.05	0.17	—	0.17	0.16	—	0.16	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.74	5.10	31.6	0.05	0.17	—	0.17	0.16	—	0.16	—	5,690	5,690	0.23	0.05	—	5,709
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.16	1.09	6.75	0.01	0.04	—	0.04	0.03	—	0.03	—	1,216	1,216	0.05	0.01	—	1,220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.20	1.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	201	201	0.01	< 0.005	—	202
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.03	0.78	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	251	251	< 0.005	< 0.005	0.17	252
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.59	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	226	226	< 0.005	< 0.005	< 0.005	227
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	49.4	49.4	< 0.005	< 0.005	0.02	49.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.18	8.18	< 0.005	< 0.005	< 0.005	8.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Linear, Paving (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.54	5.73	10.5	0.01	0.09	—	0.09	0.08	—	0.08	—	1,619	1,619	0.07	0.01	—	1,624
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.61	1.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	173	173	0.01	< 0.005	—	174
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.6	28.6	< 0.005	< 0.005	—	28.7

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.43	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	165	165	< 0.005	< 0.005	< 0.005	165
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	18.0	18.0	< 0.005	< 0.005	0.01	18.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.97	2.97	< 0.005	< 0.005	< 0.005	2.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Linear, Paving (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.18	2.58	11.3	0.01	0.03	—	0.03	0.03	—	0.03	—	1,619	1,619	0.07	0.01	—	1,624
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.28	1.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	173	173	0.01	< 0.005	—	174
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.05	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.6	28.6	< 0.005	< 0.005	—	28.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.43	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	165	165	< 0.005	< 0.005	< 0.005	165
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	18.0	18.0	< 0.005	< 0.005	0.01	18.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.97	2.97	< 0.005	< 0.005	< 0.005	2.98
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Site Preparation (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.43	2.05	14.7	19.1	0.05	0.50	—	0.50	0.46	—	0.46	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.32	0.42	< 0.005	0.01	—	0.01	0.01	—	0.01	—	116	116	< 0.005	< 0.005	—	116
Dust From Material Movement	—	—	—	—	—	—	0.43	0.43	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.38	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	144	144	< 0.005	< 0.005	< 0.005	144
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.22	3.22	< 0.005	< 0.005	< 0.005	3.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	0.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Site Preparation (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	116	116	< 0.005	< 0.005	—	116
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.38	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	144	144	< 0.005	< 0.005	< 0.005	144
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.22	3.22	< 0.005	< 0.005	< 0.005	3.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	0.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Grading (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.43	2.04	12.9	22.1	0.06	0.45	—	0.45	0.41	—	0.41	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.71	1.21	< 0.005	0.02	—	0.02	0.02	—	0.02	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.13	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.43	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	165	165	< 0.005	< 0.005	< 0.005	165

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.21	9.21	< 0.005	< 0.005	< 0.005	9.24
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.53	1.53	< 0.005	< 0.005	< 0.005	1.53
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Grading (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.43	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	165	165	< 0.005	< 0.005	< 0.005	165
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.21	9.21	< 0.005	< 0.005	< 0.005	9.24
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.53	1.53	< 0.005	< 0.005	< 0.005	1.53
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Building Construction (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	6.65	12.3	0.02	0.14	—	0.14	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	6.65	12.3	0.02	0.14	—	0.14	0.13	—	0.13	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	0.44	3.68	6.83	0.01	0.08	—	0.08	0.07	—	0.07	—	1,326	1,326	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.10	0.08	0.67	1.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.13	0.07	1.93	0.00	0.00	0.68	0.68	0.00	0.16	0.16	—	618	618	0.01	< 0.005	0.42	620
Vendor	0.01	0.01	0.30	0.09	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.03	—	281	281	< 0.005	0.04	0.17	294
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.10	1.46	0.00	0.00	0.68	0.68	0.00	0.16	0.16	—	557	557	0.01	< 0.005	0.01	559
Vendor	0.01	0.01	0.32	0.10	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.03	—	282	282	< 0.005	0.04	< 0.005	294
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.04	0.84	0.00	0.00	0.38	0.38	0.00	0.09	0.09	—	315	315	< 0.005	< 0.005	0.10	316
Vendor	< 0.005	< 0.005	0.17	0.05	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	156	156	< 0.005	0.02	0.04	163
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.15	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	52.1	52.1	< 0.005	< 0.005	0.02	52.3
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.8	25.8	< 0.005	< 0.005	0.01	26.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Building Construction (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.18	1.55	8.20	0.01	0.04	—	0.04	0.04	—	0.04	—	1,326	1,326	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	1.50	< 0.005	0.01	—	0.01	0.01	—	0.01	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.13	0.07	1.93	0.00	0.00	0.68	0.68	0.00	0.16	0.16	—	618	618	0.01	< 0.005	0.42	620
Vendor	0.01	0.01	0.30	0.09	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.03	—	281	281	< 0.005	0.04	0.17	294
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.10	1.46	0.00	0.00	0.68	0.68	0.00	0.16	0.16	—	557	557	0.01	< 0.005	0.01	559
Vendor	0.01	0.01	0.32	0.10	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.03	—	282	282	< 0.005	0.04	< 0.005	294
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.04	0.84	0.00	0.00	0.38	0.38	0.00	0.09	0.09	—	315	315	< 0.005	< 0.005	0.10	316
Vendor	< 0.005	< 0.005	0.17	0.05	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	156	156	< 0.005	0.02	0.04	163
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.15	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	52.1	52.1	< 0.005	< 0.005	0.02	52.3
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.8	25.8	< 0.005	< 0.005	0.01	26.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Paving (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	0.48	5.20	9.74	0.01	0.10	—	0.10	0.09	—	0.09	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.21	0.40	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.32	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	123	123	< 0.005	< 0.005	< 0.005	124
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.18	5.18	< 0.005	< 0.005	< 0.005	5.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.86

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Paving (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.32	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	123	123	< 0.005	< 0.005	< 0.005	124
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.18	5.18	< 0.005	< 0.005	< 0.005	5.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.86
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Architectural Coating (2041) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.11	0.09	0.74	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	516	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	21.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	3.87	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.29	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	111	111	< 0.005	< 0.005	< 0.005	112
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.68	4.68	< 0.005	< 0.005	< 0.005	4.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.77	0.77	< 0.005	< 0.005	< 0.005	0.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Architectural Coating (2041) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	20.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51

Architect Coatings	—	0.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.29	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	111	111	< 0.005	< 0.005	< 0.005	112
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.68	4.68	< 0.005	< 0.005	< 0.005	4.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.77	0.77	< 0.005	< 0.005	< 0.005	0.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	1/1/2041	2/5/2041	5.00	26.0	—
Linear, Grading & Excavation	Linear, Grading & Excavation	2/6/2041	7/18/2041	5.00	117	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	7/19/2041	11/5/2041	5.00	78.0	—
Linear, Paving	Linear, Paving	11/6/2041	12/30/2041	5.00	39.0	—
Site Preparation	Site Preparation	1/1/2041	1/10/2041	5.00	8.00	—

Grading	Grading	1/11/2041	2/7/2041	5.00	20.0	—
Building Construction	Building Construction	2/8/2041	11/18/2041	5.00	202	—
Paving	Paving	11/19/2041	12/9/2041	5.00	15.0	—
Architectural Coating	Architectural Coating	12/10/2041	12/30/2041	5.00	15.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Tier 4 Final	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Tier 4 Final	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Tier 4 Final	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82

Linear, Grading & Excavation	Tractors/Loaders/Backh	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Tier 4 Final	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Tier 4 Final	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Tier 4 Final	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37

Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2

Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	67.7	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	15.6	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	13.5	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	7.50	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	32.5	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT

Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	27.5	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	20.0	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	67.7	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	15.6	8.80	HHDT,MHDT

Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	13.5	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	7.50	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	32.5	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	27.5	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT

Linear, Paving	—	—	—	—
Linear, Paving	Worker	20.0	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	500,823	166,941	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Linear, Grading & Excavation	—	—	2.50	0.00	—
Site Preparation	—	—	12.0	0.00	—
Grading	—	—	35.6	0.00	—
Paving	0.00	0.00	0.00	0.00	3.65

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Apartments Low Rise	—	0%
Single Family Housing	1.15	0%
General Office Building	0.00	0%
Road Construction	2.50	100%
City Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2041	117	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8

Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974

Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0

Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4

Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	Total 47.6 acres to be graded for vertical and 2.5 acres for linear.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vertical linear Year 18 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vertical linear Year 18
Construction Start Date	1/1/2042
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	33.0	Dwelling Unit	3.80	34,980	0.00	—	84.0	—

Apartments Low Rise	0.00	Dwelling Unit	0.00	0.00	0.00	—	0.00	—
Single Family Housing	104	Dwelling Unit	36.3	202,800	1,218,137	—	264	—
General Office Building	41.7	1000sqft	4.60	41,664	0.00	—	—	—
Strip Mall	0.00	1000sqft	0.00	0.00	0.00	—	—	—
City Park	6.40	Acre	6.40	0.00	0.00	0.00	—	—
Elementary School	614	Student	16.0	51,332	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.18	0.99	7.25	15.2	0.03	0.14	1.19	1.33	0.13	0.29	0.42	—	3,790	3,790	0.10	0.10	0.80	3,825
Mit.	0.58	0.53	3.45	17.7	0.03	0.08	1.19	1.27	0.08	0.29	0.36	—	3,790	3,790	0.10	0.10	0.80	3,825
% Reduced	51%	47%	52%	-16%	—	44%	—	5%	41%	—	13%	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.44	640	14.4	22.1	0.06	0.49	19.8	20.3	0.45	10.1	10.6	—	6,760	6,760	0.27	0.10	0.02	6,783
Mit.	0.68	25.6	4.45	35.8	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,760	6,760	0.27	0.10	0.02	6,783
% Reduced	72%	96%	69%	-62%	—	74%	73%	73%	72%	74%	74%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.87	27.0	5.27	10.2	0.02	0.12	1.62	1.74	0.11	0.59	0.69	—	2,628	2,628	0.08	0.06	0.20	2,649
Mit.	0.38	1.40	2.33	12.6	0.02	0.05	0.93	0.98	0.05	0.28	0.33	—	2,628	2,628	0.08	0.06	0.20	2,649
% Reduced	57%	95%	56%	-23%	—	54%	43%	43%	51%	53%	53%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.16	4.93	0.96	1.86	< 0.005	0.02	0.30	0.32	0.02	0.11	0.13	—	435	435	0.01	0.01	0.03	439
Mit.	0.07	0.25	0.43	2.29	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	435	435	0.01	0.01	0.03	439
% Reduced	57%	95%	56%	-23%	—	54%	43%	43%	51%	53%	53%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	1.18	0.99	7.25	15.2	0.03	0.14	1.19	1.33	0.13	0.29	0.42	—	3,790	3,790	0.10	0.10	0.80	3,825
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	2.44	640	14.4	22.1	0.06	0.49	19.8	20.3	0.45	10.1	10.6	—	6,760	6,760	0.27	0.10	0.02	6,783

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.87	27.0	5.27	10.2	0.02	0.12	1.62	1.74	0.11	0.59	0.69	—	2,628	2,628	0.08	0.06	0.20	2,649
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.16	4.93	0.96	1.86	< 0.005	0.02	0.30	0.32	0.02	0.11	0.13	—	435	435	0.01	0.01	0.03	439

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.58	0.53	3.45	17.7	0.03	0.08	1.19	1.27	0.08	0.29	0.36	—	3,790	3,790	0.10	0.10	0.80	3,825
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.68	25.6	4.45	35.8	0.06	0.12	5.29	5.39	0.12	2.67	2.77	—	6,760	6,760	0.27	0.10	0.02	6,783
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.38	1.40	2.33	12.6	0.02	0.05	0.93	0.98	0.05	0.28	0.33	—	2,628	2,628	0.08	0.06	0.20	2,649
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.07	0.25	0.43	2.29	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	435	435	0.01	0.01	0.03	439

3. Construction Emissions Details

3.1. Site Preparation (2042) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.40	2.02	14.3	18.7	0.05	0.49	—	0.49	0.45	—	0.45	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.31	0.41	< 0.005	0.01	—	0.01	0.01	—	0.01	—	116	116	< 0.005	< 0.005	—	116
Dust From Material Movement	—	—	—	—	—	—	0.43	0.43	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.37	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	143	143	< 0.005	< 0.005	< 0.005	144
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.21	3.21	< 0.005	< 0.005	< 0.005	3.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	0.53
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2042) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,296	5,296	0.21	0.04	—	5,314

Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	116	116	< 0.005	< 0.005	—	116
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.37	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	143	143	< 0.005	< 0.005	< 0.005	144
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.21	3.21	< 0.005	< 0.005	< 0.005	3.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	0.53
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2042) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.40	2.02	12.5	21.7	0.06	0.43	—	0.43	0.40	—	0.40	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.69	1.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	361	361	0.01	< 0.005	—	363

Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.13	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.42	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	164	164	< 0.005	< 0.005	< 0.005	164
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.16	9.16	< 0.005	< 0.005	< 0.005	9.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.52	1.52	< 0.005	< 0.005	< 0.005	1.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading (2042) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.64	4.43	35.3	0.06	0.12	—	0.12	0.12	—	0.12	—	6,596	6,596	0.27	0.05	—	6,619
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.24	1.94	< 0.005	0.01	—	0.01	0.01	—	0.01	—	361	361	0.01	< 0.005	—	363
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.35	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	59.8	59.8	< 0.005	< 0.005	—	60.0

Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.42	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	164	164	< 0.005	< 0.005	< 0.005	164
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.16	9.16	< 0.005	< 0.005	< 0.005	9.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.52	1.52	< 0.005	< 0.005	< 0.005	1.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2042) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.79	6.60	12.3	0.02	0.13	—	0.13	0.12	—	0.12	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.79	6.60	12.3	0.02	0.13	—	0.13	0.12	—	0.12	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	0.44	3.65	6.82	0.01	0.07	—	0.07	0.07	—	0.07	—	1,326	1,326	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.67	1.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.18	0.10	2.70	0.00	0.00	0.97	0.97	0.00	0.23	0.23	—	873	873	0.01	0.01	0.51	875
Vendor	0.02	0.02	0.55	0.18	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	520	520	< 0.005	0.08	0.29	544
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.17	0.14	2.03	0.00	0.00	0.97	0.97	0.00	0.23	0.23	—	787	787	0.01	0.01	0.01	789
Vendor	0.02	0.01	0.58	0.19	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	521	521	< 0.005	0.08	0.01	544
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.06	1.16	0.00	0.00	0.53	0.53	0.00	0.13	0.13	—	445	445	< 0.005	< 0.005	0.12	446
Vendor	0.01	0.01	0.32	0.10	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.04	—	288	288	< 0.005	0.04	0.07	301
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.21	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	73.6	73.6	< 0.005	< 0.005	0.02	73.8
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	47.7	47.7	< 0.005	0.01	0.01	49.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2042) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.35	0.33	2.81	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.18	1.55	8.20	0.01	0.04	—	0.04	0.04	—	0.04	—	1,326	1,326	0.05	0.01	—	1,331
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	1.50	< 0.005	0.01	—	0.01	0.01	—	0.01	—	220	220	0.01	< 0.005	—	220
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.18	0.10	2.70	0.00	0.00	0.97	0.97	0.00	0.23	0.23	—	873	873	0.01	0.01	0.51	875
Vendor	0.02	0.02	0.55	0.18	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	520	520	< 0.005	0.08	0.29	544
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.17	0.14	2.03	0.00	0.00	0.97	0.97	0.00	0.23	0.23	—	787	787	0.01	0.01	0.01	789
Vendor	0.02	0.01	0.58	0.19	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	521	521	< 0.005	0.08	0.01	544
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.06	1.16	0.00	0.00	0.53	0.53	0.00	0.13	0.13	—	445	445	< 0.005	< 0.005	0.12	446
Vendor	0.01	0.01	0.32	0.10	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.04	—	288	288	< 0.005	0.04	0.07	301

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.21	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	73.6	73.6	< 0.005	< 0.005	0.02	73.8
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	47.7	47.7	< 0.005	0.01	0.01	49.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2042) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.47	5.16	9.73	0.01	0.10	—	0.10	0.09	—	0.09	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.21	0.40	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3

Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.32	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	123	123	< 0.005	< 0.005	< 0.005	123
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.15	5.15	< 0.005	< 0.005	< 0.005	5.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.85	0.85	< 0.005	< 0.005	< 0.005	0.86
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2042) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.44	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	62.1	62.1	< 0.005	< 0.005	—	62.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.32	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	123	123	< 0.005	< 0.005	< 0.005	123
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.15	5.15	< 0.005	< 0.005	< 0.005	5.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.85	0.85	< 0.005	< 0.005	< 0.005	0.86
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2042) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.74	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	640	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	26.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	4.80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.41	0.00	0.00	0.19	0.19	0.00	0.05	0.05	—	157	157	< 0.005	< 0.005	< 0.005	158
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.60	6.60	< 0.005	< 0.005	< 0.005	6.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2042) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	25.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.49	5.49	< 0.005	< 0.005	—	5.51
Architectural Coatings	—	1.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.91	0.91	< 0.005	< 0.005	—	0.91
Architectural Coatings	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.41	0.00	0.00	0.19	0.19	0.00	0.05	0.05	—	157	157	< 0.005	< 0.005	< 0.005	158
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.60	6.60	< 0.005	< 0.005	< 0.005	6.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2042	1/12/2042	5.00	8.00	—
Grading	Grading	1/13/2042	2/9/2042	5.00	20.0	—
Building Construction	Building Construction	2/10/2042	11/18/2042	5.00	202	—
Paving	Paving	11/19/2042	12/9/2042	5.00	15.0	—
Architectural Coating	Architectural Coating	12/10/2042	12/30/2042	5.00	15.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45

Building Construction	Tractors/Loaders/Backh	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	96.1	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	29.9	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2

Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	19.2	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	96.1	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	29.9	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—

Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	19.2	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	481,505	160,502	139,494	46,498	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	12.0	0.00	—
Grading	—	—	55.1	0.00	—
Paving	0.00	0.00	0.00	0.00	1.15

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Condo/Townhouse	—	0%
Apartments Low Rise	—	0%
Single Family Housing	1.15	0%
General Office Building	0.00	0%
Strip Mall	0.00	0%
City Park	0.00	0%
Elementary School	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2042	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1

Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—

Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0

Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—

Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data.
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	A total of 67.1 acres to be graded for vertical construction.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV rock separation Year 1 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV rock separation Year 1
Construction Start Date	1/1/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
City Park	50.0	Acre	50.0	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-C	Water Unpaved Construction Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.97	8.36	94.8	70.7	0.23	2.80	692	695	2.58	69.3	71.9	—	23,534	23,534	0.90	0.74	0.13	23,776
Mit.	9.97	8.36	94.8	70.7	0.23	2.80	311	314	2.58	31.2	33.8	—	23,534	23,534	0.90	0.74	0.13	23,776
% Reduced	—	—	—	—	—	—	55%	55%	—	55%	53%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.37	1.15	13.0	9.65	0.03	0.38	92.2	92.6	0.35	9.23	9.58	—	3,226	3,226	0.12	0.10	0.29	3,260
Mit.	1.37	1.15	13.0	9.65	0.03	0.38	41.4	41.8	0.35	4.15	4.50	—	3,226	3,226	0.12	0.10	0.29	3,260
% Reduced	—	—	—	—	—	—	55%	55%	—	55%	53%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.25	0.21	2.36	1.76	0.01	0.07	16.8	16.9	0.06	1.68	1.75	—	534	534	0.02	0.02	0.05	540
Mit.	0.25	0.21	2.36	1.76	0.01	0.07	7.56	7.63	0.06	0.76	0.82	—	534	534	0.02	0.02	0.05	540

% Reduced	—	—	—	—	—	—	55%	55%	—	55%	53%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	9.97	8.36	94.8	70.7	0.23	2.80	692	695	2.58	69.3	71.9	—	23,534	23,534	0.90	0.74	0.13	23,776
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.37	1.15	13.0	9.65	0.03	0.38	92.2	92.6	0.35	9.23	9.58	—	3,226	3,226	0.12	0.10	0.29	3,260
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.25	0.21	2.36	1.76	0.01	0.07	16.8	16.9	0.06	1.68	1.75	—	534	534	0.02	0.02	0.05	540

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	9.97	8.36	94.8	70.7	0.23	2.80	311	314	2.58	31.2	33.8	—	23,534	23,534	0.90	0.74	0.13	23,776
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2025	1.37	1.15	13.0	9.65	0.03	0.38	41.4	41.8	0.35	4.15	4.50	—	3,226	3,226	0.12	0.10	0.29	3,260
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.25	0.21	2.36	1.76	0.01	0.07	7.56	7.63	0.06	0.76	0.82	—	534	534	0.02	0.02	0.05	540

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	9.05	7.60	71.1	60.7	0.18	2.75	—	2.75	2.53	—	2.53	—	19,591	19,591	0.79	0.16	—	19,659
Dust From Material Movement	—	—	—	—	—	—	11.2	11.2	—	1.23	1.23	—	—	—	—	—	—	—
Onsite truck	0.76	0.61	23.5	8.33	0.05	0.05	681	681	0.05	68.0	68.0	—	3,589	3,589	0.09	0.56	0.09	3,760
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.24	1.04	9.74	8.31	0.02	0.38	—	0.38	0.35	—	0.35	—	2,684	2,684	0.11	0.02	—	2,693
Dust From Material Movement	—	—	—	—	—	—	1.53	1.53	—	0.17	0.17	—	—	—	—	—	—	—

Onsite truck	0.11	0.09	3.20	1.10	0.01	0.01	90.6	90.6	0.01	9.05	9.05	—	493	493	0.01	0.08	0.20	517
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.19	1.78	1.52	< 0.005	0.07	—	0.07	0.06	—	0.06	—	444	444	0.02	< 0.005	—	446
Dust From Material Movement	—	—	—	—	—	—	0.28	0.28	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.02	0.02	0.58	0.20	< 0.005	< 0.005	16.5	16.5	< 0.005	1.65	1.65	—	81.6	81.6	< 0.005	0.01	0.03	85.5
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.16	1.74	0.00	0.00	0.35	0.35	0.00	0.08	0.08	—	353	353	0.01	0.01	0.04	358
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.24	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	49.4	49.4	< 0.005	< 0.005	0.09	50.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.19	8.19	< 0.005	< 0.005	0.01	8.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	9.05	7.60	71.1	60.7	0.18	2.75	—	2.75	2.53	—	2.53	—	19,591	19,591	0.79	0.16	—	19,659
Dust From Material Movement	—	—	—	—	—	—	4.36	4.36	—	0.48	0.48	—	—	—	—	—	—	—
Onsite truck	0.76	0.61	23.5	8.33	0.05	0.05	306	306	0.05	30.6	30.7	—	3,589	3,589	0.09	0.56	0.09	3,760
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.24	1.04	9.74	8.31	0.02	0.38	—	0.38	0.35	—	0.35	—	2,684	2,684	0.11	0.02	—	2,693
Dust From Material Movement	—	—	—	—	—	—	0.60	0.60	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.11	0.09	3.20	1.10	0.01	0.01	40.8	40.8	0.01	4.07	4.08	—	493	493	0.01	0.08	0.20	517
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.19	1.78	1.52	< 0.005	0.07	—	0.07	0.06	—	0.06	—	444	444	0.02	< 0.005	—	446

Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.02	0.02	0.58	0.20	< 0.005	< 0.005	7.44	7.44	< 0.005	0.74	0.74	—	81.6	81.6	< 0.005	0.01	0.03	85.5
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.16	1.74	0.00	0.00	0.35	0.35	0.00	0.08	0.08	—	353	353	0.01	0.01	0.04	358
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.24	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	49.4	49.4	< 0.005	< 0.005	0.09	50.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.19	8.19	< 0.005	< 0.005	0.01	8.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2025	3/11/2025	5.00	50.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Site Preparation	Plate Compactors	Diesel	Average	2.00	8.00	8.00	0.43
Site Preparation	Scrapers	Diesel	Average	10.0	8.00	423	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Site Preparation	Plate Compactors	Diesel	Average	2.00	8.00	8.00	0.43
Site Preparation	Scrapers	Diesel	Average	10.0	8.00	423	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	35.0	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	0.00	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	1,250	0.37	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	35.0	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	0.00	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	1,250	0.37	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	500,000	—	0.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
City Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14

Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967

Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0

Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0

Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per client's data.
Construction: Dust From Material Movement	No grading is assumed for rock separating.
Construction: Off-Road Equipment	Per client's data.
Construction: Trips and VMT	Per client's data.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV trail Year 3 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV trail Year 3
Construction Start Date	1/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Recreational	10,674	User Defined Unit	1.50	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.71	1.44	12.5	14.9	0.02	0.55	7.18	7.73	0.50	3.45	3.95	—	2,636	2,636	0.10	0.02	0.36	2,647
Mit.	0.29	0.28	1.27	15.3	0.02	0.05	1.94	1.99	0.05	0.91	0.96	—	2,636	2,636	0.10	0.02	0.36	2,647
% Reduced	83%	80%	90%	-3%	—	91%	73%	74%	91%	73%	76%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.70	1.44	12.5	14.8	0.02	0.55	7.18	7.73	0.50	3.45	3.95	—	2,625	2,625	0.10	0.02	0.01	2,635
Mit.	0.28	0.28	1.27	15.2	0.02	0.05	1.94	1.99	0.05	0.91	0.96	—	2,625	2,625	0.10	0.02	0.01	2,635
% Reduced	84%	81%	90%	-3%	—	91%	73%	74%	91%	73%	76%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.56	0.47	4.10	4.86	0.01	0.18	2.36	2.54	0.17	1.13	1.30	—	864	864	0.03	0.01	0.05	867

Mit.	0.09	0.09	0.42	4.99	0.01	0.02	0.64	0.65	0.02	0.30	0.32	—	864	864	0.03	0.01	0.05	867
% Reduced	84%	81%	90%	-3%	—	91%	73%	74%	91%	73%	76%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.10	0.09	0.75	0.89	< 0.005	0.03	0.43	0.46	0.03	0.21	0.24	—	143	143	0.01	< 0.005	0.01	144
Mit.	0.02	0.02	0.08	0.91	< 0.005	< 0.005	0.12	0.12	< 0.005	0.05	0.06	—	143	143	0.01	< 0.005	0.01	144
% Reduced	84%	81%	90%	-3%	—	91%	73%	74%	91%	73%	76%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.71	1.44	12.5	14.9	0.02	0.55	7.18	7.73	0.50	3.45	3.95	—	2,636	2,636	0.10	0.02	0.36	2,647
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.70	1.44	12.5	14.8	0.02	0.55	7.18	7.73	0.50	3.45	3.95	—	2,625	2,625	0.10	0.02	0.01	2,635
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.56	0.47	4.10	4.86	0.01	0.18	2.36	2.54	0.17	1.13	1.30	—	864	864	0.03	0.01	0.05	867
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.10	0.09	0.75	0.89	< 0.005	0.03	0.43	0.46	0.03	0.21	0.24	—	143	143	0.01	< 0.005	0.01	144

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.29	0.28	1.27	15.3	0.02	0.05	1.94	1.99	0.05	0.91	0.96	—	2,636	2,636	0.10	0.02	0.36	2,647
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.28	0.28	1.27	15.2	0.02	0.05	1.94	1.99	0.05	0.91	0.96	—	2,625	2,625	0.10	0.02	0.01	2,635
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.09	0.09	0.42	4.99	0.01	0.02	0.64	0.65	0.02	0.30	0.32	—	864	864	0.03	0.01	0.05	867
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.02	0.02	0.08	0.91	< 0.005	< 0.005	0.12	0.12	< 0.005	0.05	0.06	—	143	143	0.01	< 0.005	0.01	144

3. Construction Emissions Details

3.1. Grading (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.66	1.40	12.4	14.3	0.02	0.55	—	0.55	0.50	—	0.50	—	2,528	2,528	0.10	0.02	—	2,537
Dust From Material Movement	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.66	1.40	12.4	14.3	0.02	0.55	—	0.55	0.50	—	0.50	—	2,528	2,528	0.10	0.02	—	2,537
Dust From Material Movement	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	0.46	4.09	4.72	0.01	0.18	—	0.18	0.17	—	0.17	—	831	831	0.03	0.01	—	834
Dust From Material Movement	—	—	—	—	—	—	2.33	2.33	—	1.13	1.13	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.75	0.86	< 0.005	0.03	—	0.03	0.03	—	0.03	—	138	138	0.01	< 0.005	—	138
Dust From Material Movement	—	—	—	—	—	—	0.42	0.42	—	0.21	0.21	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.55	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	< 0.005	< 0.005	0.36	110

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.43	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	97.5	97.5	< 0.005	< 0.005	0.01	98.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.7	32.7	< 0.005	< 0.005	0.05	33.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.42	5.42	< 0.005	< 0.005	0.01	5.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Grading (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.24	1.24	14.7	0.02	0.05	—	0.05	0.05	—	0.05	—	2,528	2,528	0.10	0.02	—	2,537

Dust From Material Movement	—	—	—	—	—	—	1.84	1.84	—	0.89	0.89	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.24	1.24	14.7	0.02	0.05	—	0.05	0.05	—	0.05	—	2,528	2,528	0.10	0.02	—	2,537
Dust From Material Movement	—	—	—	—	—	—	1.84	1.84	—	0.89	0.89	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	0.41	4.85	0.01	0.02	—	0.02	0.02	—	0.02	—	831	831	0.03	0.01	—	834
Dust From Material Movement	—	—	—	—	—	—	0.61	0.61	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.88	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	138	138	0.01	< 0.005	—	138
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.55	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	< 0.005	< 0.005	0.36	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.43	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	97.5	97.5	< 0.005	< 0.005	0.01	98.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.7	32.7	< 0.005	< 0.005	0.05	33.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.42	5.42	< 0.005	< 0.005	0.01	5.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetatio	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/3/2027	6/20/2027	5.00	120	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	10.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	10.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	0.00	—	1.50	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Recreational	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14

Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967

Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0

Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0

Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per client's data.
Construction: Dust From Material Movement	Per client's data.
Construction: Off-Road Equipment	Per client's data.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

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5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV trail Year 12
Construction Start Date	1/1/2036
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Recreational	10,674	User Defined Unit	1.50	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.30	1.10	8.00	12.5	0.02	0.31	7.18	7.49	0.28	3.45	3.73	—	2,622	2,622	0.10	0.02	0.13	2,631
Mit.	0.27	0.27	1.25	15.1	0.02	0.05	1.94	1.99	0.05	0.91	0.96	—	2,622	2,622	0.10	0.02	0.13	2,631
% Reduced	79%	76%	84%	-21%	—	85%	73%	73%	83%	73%	74%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.30	1.09	8.01	12.4	0.02	0.31	7.18	7.49	0.28	3.45	3.73	—	2,613	2,613	0.10	0.02	< 0.005	2,622
Mit.	0.27	0.26	1.25	15.0	0.02	0.05	1.94	1.99	0.05	0.91	0.96	—	2,613	2,613	0.10	0.02	< 0.005	2,622
% Reduced	80%	76%	84%	-21%	—	85%	73%	73%	83%	73%	74%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.43	0.36	2.63	4.08	0.01	0.10	2.36	2.46	0.09	1.13	1.23	—	860	860	0.03	0.01	0.02	863

Mit.	0.09	0.09	0.41	4.93	0.01	0.02	0.64	0.65	0.02	0.30	0.32	—	860	860	0.03	0.01	0.02	863
% Reduced	80%	76%	84%	-21%	—	85%	73%	73%	83%	73%	74%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.08	0.07	0.48	0.74	< 0.005	0.02	0.43	0.45	0.02	0.21	0.22	—	142	142	0.01	< 0.005	< 0.005	143
Mit.	0.02	0.02	0.08	0.90	< 0.005	< 0.005	0.12	0.12	< 0.005	0.05	0.06	—	142	142	0.01	< 0.005	< 0.005	143
% Reduced	80%	76%	84%	-21%	—	85%	73%	73%	83%	73%	74%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2036	1.30	1.10	8.00	12.5	0.02	0.31	7.18	7.49	0.28	3.45	3.73	—	2,622	2,622	0.10	0.02	0.13	2,631
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2036	1.30	1.09	8.01	12.4	0.02	0.31	7.18	7.49	0.28	3.45	3.73	—	2,613	2,613	0.10	0.02	< 0.005	2,622
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2036	0.43	0.36	2.63	4.08	0.01	0.10	2.36	2.46	0.09	1.13	1.23	—	860	860	0.03	0.01	0.02	863
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2036	0.08	0.07	0.48	0.74	< 0.005	0.02	0.43	0.45	0.02	0.21	0.22	—	142	142	0.01	< 0.005	< 0.005	143

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2036	0.27	0.27	1.25	15.1	0.02	0.05	1.94	1.99	0.05	0.91	0.96	—	2,622	2,622	0.10	0.02	0.13	2,631
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2036	0.27	0.26	1.25	15.0	0.02	0.05	1.94	1.99	0.05	0.91	0.96	—	2,613	2,613	0.10	0.02	< 0.005	2,622
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2036	0.09	0.09	0.41	4.93	0.01	0.02	0.64	0.65	0.02	0.30	0.32	—	860	860	0.03	0.01	0.02	863
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2036	0.02	0.02	0.08	0.90	< 0.005	< 0.005	0.12	0.12	< 0.005	0.05	0.06	—	142	142	0.01	< 0.005	< 0.005	143

3. Construction Emissions Details

3.1. Grading (2036) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.27	1.07	7.99	12.1	0.02	0.31	—	0.31	0.28	—	0.28	—	2,527	2,527	0.10	0.02	—	2,536
Dust From Material Movement	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.27	1.07	7.99	12.1	0.02	0.31	—	0.31	0.28	—	0.28	—	2,527	2,527	0.10	0.02	—	2,536
Dust From Material Movement	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	0.35	2.63	3.99	0.01	0.10	—	0.10	0.09	—	0.09	—	831	831	0.03	0.01	—	834
Dust From Material Movement	—	—	—	—	—	—	2.33	2.33	—	1.13	1.13	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.48	0.73	< 0.005	0.02	—	0.02	0.02	—	0.02	—	138	138	0.01	< 0.005	—	138
Dust From Material Movement	—	—	—	—	—	—	0.42	0.42	—	0.21	0.21	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.01	0.33	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	95.0	95.0	< 0.005	< 0.005	0.13	95.3

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.26	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	85.6	85.6	< 0.005	< 0.005	< 0.005	85.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.7	28.7	< 0.005	< 0.005	0.02	28.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.76	4.76	< 0.005	< 0.005	< 0.005	4.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Grading (2036) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.24	1.24	14.7	0.02	0.05	—	0.05	0.05	—	0.05	—	2,527	2,527	0.10	0.02	—	2,536

Dust From Material Movement	—	—	—	—	—	—	1.84	1.84	—	0.89	0.89	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.24	1.24	14.7	0.02	0.05	—	0.05	0.05	—	0.05	—	2,527	2,527	0.10	0.02	—	2,536
Dust From Material Movement	—	—	—	—	—	—	1.84	1.84	—	0.89	0.89	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	0.41	4.85	0.01	0.02	—	0.02	0.02	—	0.02	—	831	831	0.03	0.01	—	834
Dust From Material Movement	—	—	—	—	—	—	0.61	0.61	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.88	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	138	138	0.01	< 0.005	—	138
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.01	0.33	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	95.0	95.0	< 0.005	< 0.005	0.13	95.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.26	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	85.6	85.6	< 0.005	< 0.005	< 0.005	85.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.7	28.7	< 0.005	< 0.005	0.02	28.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.76	4.76	< 0.005	< 0.005	< 0.005	4.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetatio	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/1/2036	6/16/2036	5.00	120	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	10.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	10.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	0.00	—	1.50	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Recreational	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2036	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14

Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967

Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0

Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0

Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per client's data.
Construction: Dust From Material Movement	Per client's data
Construction: Off-Road Equipment	Per client's data.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV trail Year 18
Construction Start Date	1/1/2042
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Recreational	10,672	User Defined Unit	1.50	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.13	0.95	6.42	11.4	0.02	0.23	7.18	7.41	0.21	3.45	3.66	—	2,618	2,618	0.10	0.02	0.05	2,627
Mit.	0.26	0.26	1.25	15.0	0.02	0.05	1.94	1.99	0.05	0.91	0.96	—	2,618	2,618	0.10	0.02	0.05	2,627
% Reduced	77%	73%	81%	-32%	—	79%	73%	73%	77%	73%	74%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.13	0.95	6.42	11.3	0.02	0.23	7.18	7.41	0.21	3.45	3.66	—	2,609	2,609	0.10	0.02	< 0.005	2,618
Mit.	0.26	0.26	1.25	15.0	0.02	0.05	1.94	1.99	0.05	0.91	0.96	—	2,609	2,609	0.10	0.02	< 0.005	2,618
% Reduced	77%	73%	81%	-32%	—	79%	73%	73%	77%	73%	74%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.37	0.31	2.11	3.73	0.01	0.07	2.36	2.44	0.07	1.13	1.20	—	858	858	0.03	0.01	0.01	861

Mit.	0.09	0.08	0.41	4.92	0.01	0.02	0.64	0.65	0.02	0.30	0.32	—	858	858	0.03	0.01	0.01	861
% Reduced	77%	73%	81%	-32%	—	79%	73%	73%	77%	73%	74%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.06	0.39	0.68	< 0.005	0.01	0.43	0.44	0.01	0.21	0.22	—	142	142	0.01	< 0.005	< 0.005	143
Mit.	0.02	0.02	0.07	0.90	< 0.005	< 0.005	0.12	0.12	< 0.005	0.05	0.06	—	142	142	0.01	< 0.005	< 0.005	143
% Reduced	77%	73%	81%	-32%	—	79%	73%	73%	77%	73%	74%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	1.13	0.95	6.42	11.4	0.02	0.23	7.18	7.41	0.21	3.45	3.66	—	2,618	2,618	0.10	0.02	0.05	2,627
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	1.13	0.95	6.42	11.3	0.02	0.23	7.18	7.41	0.21	3.45	3.66	—	2,609	2,609	0.10	0.02	< 0.005	2,618
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.37	0.31	2.11	3.73	0.01	0.07	2.36	2.44	0.07	1.13	1.20	—	858	858	0.03	0.01	0.01	861
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.07	0.06	0.39	0.68	< 0.005	0.01	0.43	0.44	0.01	0.21	0.22	—	142	142	0.01	< 0.005	< 0.005	143

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.26	0.26	1.25	15.0	0.02	0.05	1.94	1.99	0.05	0.91	0.96	—	2,618	2,618	0.10	0.02	0.05	2,627
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.26	0.26	1.25	15.0	0.02	0.05	1.94	1.99	0.05	0.91	0.96	—	2,609	2,609	0.10	0.02	< 0.005	2,618
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.09	0.08	0.41	4.92	0.01	0.02	0.64	0.65	0.02	0.30	0.32	—	858	858	0.03	0.01	0.01	861
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.02	0.02	0.07	0.90	< 0.005	< 0.005	0.12	0.12	< 0.005	0.05	0.06	—	142	142	0.01	< 0.005	< 0.005	143

3. Construction Emissions Details

3.1. Grading (2042) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.11	0.93	6.41	11.1	0.02	0.23	—	0.23	0.21	—	0.21	—	2,527	2,527	0.10	0.02	—	2,536
Dust From Material Movement	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.11	0.93	6.41	11.1	0.02	0.23	—	0.23	0.21	—	0.21	—	2,527	2,527	0.10	0.02	—	2,536
Dust From Material Movement	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.31	2.11	3.65	0.01	0.07	—	0.07	0.07	—	0.07	—	831	831	0.03	0.01	—	834
Dust From Material Movement	—	—	—	—	—	—	2.33	2.33	—	1.13	1.13	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.38	0.67	< 0.005	0.01	—	0.01	0.01	—	0.01	—	138	138	0.01	< 0.005	—	138
Dust From Material Movement	—	—	—	—	—	—	0.42	0.42	—	0.21	0.21	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.28	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	90.8	90.8	< 0.005	< 0.005	0.05	91.1

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.21	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	81.8	81.8	< 0.005	< 0.005	< 0.005	82.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.5	27.5	< 0.005	< 0.005	0.01	27.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.55	4.55	< 0.005	< 0.005	< 0.005	4.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Grading (2042) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.24	1.24	14.7	0.02	0.05	—	0.05	0.05	—	0.05	—	2,527	2,527	0.10	0.02	—	2,536

Dust From Material Movement	—	—	—	—	—	—	1.84	1.84	—	0.89	0.89	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.24	1.24	14.7	0.02	0.05	—	0.05	0.05	—	0.05	—	2,527	2,527	0.10	0.02	—	2,536
Dust From Material Movement	—	—	—	—	—	—	1.84	1.84	—	0.89	0.89	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	0.41	4.85	0.01	0.02	—	0.02	0.02	—	0.02	—	831	831	0.03	0.01	—	834
Dust From Material Movement	—	—	—	—	—	—	0.61	0.61	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.88	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	138	138	0.01	< 0.005	—	138
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.28	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	90.8	90.8	< 0.005	< 0.005	0.05	91.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.21	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	81.8	81.8	< 0.005	< 0.005	< 0.005	82.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	27.5	27.5	< 0.005	< 0.005	0.01	27.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.55	4.55	< 0.005	< 0.005	< 0.005	4.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetatio	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/1/2042	6/17/2042	5.00	120	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	10.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	10.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	0.00	—	1.50	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Recreational	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2042	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14

Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967

Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0

Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0

Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per client's data.
Construction: Dust From Material Movement	Per client's data
Construction: Off-Road Equipment	Per client's data.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

MV vineyard Year 3 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vineyard Year 3
Construction Start Date	1/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Recreational	13.8	User Defined Unit	13.8	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.45	1.22	10.0	10.6	0.02	0.43	6.63	7.06	0.40	3.39	3.78	—	1,892	1,892	0.07	0.02	0.27	1,900
Mit.	0.21	0.21	1.50	10.2	0.02	0.03	1.78	1.81	0.03	0.89	0.93	—	1,892	1,892	0.07	0.02	0.27	1,900
% Reduced	85%	83%	85%	4%	—	92%	73%	74%	91%	74%	75%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.45	1.22	10.0	10.5	0.02	0.43	6.63	7.06	0.40	3.39	3.78	—	1,884	1,884	0.08	0.02	0.01	1,891
Mit.	0.21	0.21	1.51	10.1	0.02	0.03	1.78	1.81	0.03	0.89	0.93	—	1,884	1,884	0.08	0.02	0.01	1,891
% Reduced	86%	83%	85%	4%	—	92%	73%	74%	91%	74%	75%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.48	0.40	3.29	3.46	0.01	0.14	2.18	2.32	0.13	1.11	1.24	—	620	620	0.02	0.01	0.04	622

Mit.	0.07	0.07	0.49	3.31	0.01	0.01	0.58	0.60	0.01	0.29	0.30	—	620	620	0.02	0.01	0.04	622
% Reduced	86%	83%	85%	4%	—	92%	73%	74%	91%	74%	75%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.09	0.07	0.60	0.63	< 0.005	0.03	0.40	0.42	0.02	0.20	0.23	—	103	103	< 0.005	< 0.005	0.01	103
Mit.	0.01	0.01	0.09	0.60	< 0.005	< 0.005	0.11	0.11	< 0.005	0.05	0.06	—	103	103	< 0.005	< 0.005	0.01	103
% Reduced	86%	83%	85%	4%	—	92%	73%	74%	91%	74%	75%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.45	1.22	10.0	10.6	0.02	0.43	6.63	7.06	0.40	3.39	3.78	—	1,892	1,892	0.07	0.02	0.27	1,900
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.45	1.22	10.0	10.5	0.02	0.43	6.63	7.06	0.40	3.39	3.78	—	1,884	1,884	0.08	0.02	0.01	1,891
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.48	0.40	3.29	3.46	0.01	0.14	2.18	2.32	0.13	1.11	1.24	—	620	620	0.02	0.01	0.04	622
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.09	0.07	0.60	0.63	< 0.005	0.03	0.40	0.42	0.02	0.20	0.23	—	103	103	< 0.005	< 0.005	0.01	103

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.21	0.21	1.50	10.2	0.02	0.03	1.78	1.81	0.03	0.89	0.93	—	1,892	1,892	0.07	0.02	0.27	1,900
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.21	0.21	1.51	10.1	0.02	0.03	1.78	1.81	0.03	0.89	0.93	—	1,884	1,884	0.08	0.02	0.01	1,891
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.07	0.07	0.49	3.31	0.01	0.01	0.58	0.60	0.01	0.29	0.30	—	620	620	0.02	0.01	0.04	622
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.01	0.01	0.09	0.60	< 0.005	< 0.005	0.11	0.11	< 0.005	0.05	0.06	—	103	103	< 0.005	< 0.005	0.01	103

3. Construction Emissions Details

3.1. Grading (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41	1.19	9.98	10.2	0.02	0.43	—	0.43	0.40	—	0.40	—	1,811	1,811	0.07	0.01	—	1,817
Dust From Material Movement	—	—	—	—	—	—	6.55	6.55	—	3.37	3.37	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41	1.19	9.98	10.2	0.02	0.43	—	0.43	0.40	—	0.40	—	1,811	1,811	0.07	0.01	—	1,817
Dust From Material Movement	—	—	—	—	—	—	6.55	6.55	—	3.37	3.37	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	0.39	3.28	3.35	0.01	0.14	—	0.14	0.13	—	0.13	—	595	595	0.02	< 0.005	—	597
Dust From Material Movement	—	—	—	—	—	—	2.15	2.15	—	1.11	1.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.60	0.61	< 0.005	0.03	—	0.03	0.02	—	0.02	—	98.6	98.6	< 0.005	< 0.005	—	98.9
Dust From Material Movement	—	—	—	—	—	—	0.39	0.39	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.41	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	81.2	81.2	< 0.005	< 0.005	0.27	82.4

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.32	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	73.1	73.1	< 0.005	< 0.005	0.01	74.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.6	24.6	< 0.005	< 0.005	0.04	24.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.06	4.06	< 0.005	< 0.005	0.01	4.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Grading (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.18	1.48	9.75	0.02	0.03	—	0.03	0.03	—	0.03	—	1,811	1,811	0.07	0.01	—	1,817

Dust From Material Movement	—	—	—	—	—	—	1.70	1.70	—	0.88	0.88	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.18	1.48	9.75	0.02	0.03	—	0.03	0.03	—	0.03	—	1,811	1,811	0.07	0.01	—	1,817
Dust From Material Movement	—	—	—	—	—	—	1.70	1.70	—	0.88	0.88	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.06	0.49	3.21	0.01	0.01	—	0.01	0.01	—	0.01	—	595	595	0.02	< 0.005	—	597
Dust From Material Movement	—	—	—	—	—	—	0.56	0.56	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.58	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	98.6	98.6	< 0.005	< 0.005	—	98.9
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.41	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	81.2	81.2	< 0.005	< 0.005	0.27	82.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.32	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	73.1	73.1	< 0.005	< 0.005	0.01	74.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.6	24.6	< 0.005	< 0.005	0.04	24.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.06	4.06	< 0.005	< 0.005	0.01	4.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetatio	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/3/2027	6/20/2027	5.00	120	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Rubber Tired Loaders	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	7.50	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	7.50	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	—	—	13.8	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Recreational	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14

Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967

Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0

Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0

Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per client's data.
Construction: Dust From Material Movement	Per client's data.
Construction: Off-Road Equipment	Per client's data.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vineyard Year 8
Construction Start Date	1/1/2032
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Recreational	13.8	User Defined Unit	13.8	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mit.	0.20	0.20	1.49	10.0	0.02	0.03	1.78	1.81	0.03	0.89	0.93	—	1,885	1,885	0.07	0.02	0.16	1,892
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mit.	0.20	0.20	1.50	9.98	0.02	0.03	1.78	1.81	0.03	0.89	0.93	—	1,878	1,878	0.07	0.02	< 0.005	1,885
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mit.	0.07	0.07	0.49	3.28	0.01	0.01	0.58	0.60	0.01	0.29	0.30	—	618	618	0.02	< 0.005	0.02	620
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mit.	0.01	0.01	0.09	0.60	< 0.005	< 0.005	0.11	0.11	< 0.005	0.05	0.06	—	102	102	< 0.005	< 0.005	< 0.005	103
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.20	0.20	1.49	10.0	0.02	0.03	1.78	1.81	0.03	0.89	0.93	—	1,885	1,885	0.07	0.02	0.16	1,892

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.20	0.20	1.50	9.98	0.02	0.03	1.78	1.81	0.03	0.89	0.93	—	1,878	1,878	0.07	0.02	< 0.005	1,885
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.07	0.07	0.49	3.28	0.01	0.01	0.58	0.60	0.01	0.29	0.30	—	618	618	0.02	< 0.005	0.02	620
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.01	0.01	0.09	0.60	< 0.005	< 0.005	0.11	0.11	< 0.005	0.05	0.06	—	102	102	< 0.005	< 0.005	< 0.005	103

3. Construction Emissions Details

3.1. Grading (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3.2. Grading (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.18	1.48	9.75	0.02	0.03	—	0.03	0.03	—	0.03	—	1,811	1,811	0.07	0.01	—	1,817
Dust From Material Movement	—	—	—	—	—	—	1.70	1.70	—	0.88	0.88	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.18	1.48	9.75	0.02	0.03	—	0.03	0.03	—	0.03	—	1,811	1,811	0.07	0.01	—	1,817
Dust From Material Movement	—	—	—	—	—	—	1.70	1.70	—	0.88	0.88	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.06	0.06	0.49	3.21	0.01	0.01	—	0.01	0.01	—	0.01	—	595	595	0.02	< 0.005	—	597
Dust From Material Movement	—	—	—	—	—	—	0.56	0.56	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.58	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	98.5	98.5	< 0.005	< 0.005	—	98.9
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.30	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	74.7	74.7	< 0.005	< 0.005	0.16	75.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.24	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	67.3	67.3	< 0.005	< 0.005	< 0.005	68.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	22.6	22.6	< 0.005	< 0.005	0.02	22.7

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.74	3.74	< 0.005	< 0.005	< 0.005	3.76
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/1/2032	6/16/2032	5.00	120	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Rubber Tired Loaders	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	7.50	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT

Grading	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	7.50	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	—	—	13.8	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Recreational	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2032	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—

Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424

Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0

Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per client's data.
Construction: Dust From Material Movement	Per client's data.
Construction: Off-Road Equipment	Per client's data.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vineyard Year 13
Construction Start Date	1/1/2037
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Recreational	13.8	User Defined Unit	13.8	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.08	0.91	6.62	8.22	0.02	0.24	6.63	6.87	0.22	3.39	3.61	—	1,881	1,881	0.07	0.02	0.08	1,887
Mit.	0.20	0.20	1.49	9.99	0.02	0.03	1.78	1.81	0.03	0.89	0.93	—	1,881	1,881	0.07	0.02	0.08	1,887
% Reduced	82%	78%	78%	-21%	—	86%	73%	74%	85%	74%	74%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.08	0.91	6.62	8.17	0.02	0.24	6.63	6.87	0.22	3.39	3.61	—	1,874	1,874	0.07	0.02	< 0.005	1,880
Mit.	0.20	0.20	1.49	9.93	0.02	0.03	1.78	1.81	0.03	0.89	0.93	—	1,874	1,874	0.07	0.02	< 0.005	1,880
% Reduced	82%	78%	77%	-22%	—	86%	73%	74%	85%	74%	74%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.35	0.30	2.18	2.69	0.01	0.08	2.18	2.26	0.07	1.11	1.19	—	617	617	0.02	< 0.005	0.01	619

Mit.	0.07	0.07	0.49	3.27	0.01	0.01	0.58	0.60	0.01	0.29	0.30	—	617	617	0.02	< 0.005	0.01	619
% Reduced	82%	78%	78%	-22%	—	86%	73%	74%	85%	74%	74%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.06	0.05	0.40	0.49	< 0.005	0.01	0.40	0.41	0.01	0.20	0.22	—	102	102	< 0.005	< 0.005	< 0.005	102
Mit.	0.01	0.01	0.09	0.60	< 0.005	< 0.005	0.11	0.11	< 0.005	0.05	0.06	—	102	102	< 0.005	< 0.005	< 0.005	102
% Reduced	82%	78%	78%	-22%	—	86%	73%	74%	85%	74%	74%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2037	1.08	0.91	6.62	8.22	0.02	0.24	6.63	6.87	0.22	3.39	3.61	—	1,881	1,881	0.07	0.02	0.08	1,887
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2037	1.08	0.91	6.62	8.17	0.02	0.24	6.63	6.87	0.22	3.39	3.61	—	1,874	1,874	0.07	0.02	< 0.005	1,880
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2037	0.35	0.30	2.18	2.69	0.01	0.08	2.18	2.26	0.07	1.11	1.19	—	617	617	0.02	< 0.005	0.01	619
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2037	0.06	0.05	0.40	0.49	< 0.005	0.01	0.40	0.41	0.01	0.20	0.22	—	102	102	< 0.005	< 0.005	< 0.005	102

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2037	0.20	0.20	1.49	9.99	0.02	0.03	1.78	1.81	0.03	0.89	0.93	—	1,881	1,881	0.07	0.02	0.08	1,887
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2037	0.20	0.20	1.49	9.93	0.02	0.03	1.78	1.81	0.03	0.89	0.93	—	1,874	1,874	0.07	0.02	< 0.005	1,880
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2037	0.07	0.07	0.49	3.27	0.01	0.01	0.58	0.60	0.01	0.29	0.30	—	617	617	0.02	< 0.005	0.01	619
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2037	0.01	0.01	0.09	0.60	< 0.005	< 0.005	0.11	0.11	< 0.005	0.05	0.06	—	102	102	< 0.005	< 0.005	< 0.005	102

3. Construction Emissions Details

3.1. Grading (2037) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.06	0.89	6.61	7.98	0.02	0.24	—	0.24	0.22	—	0.22	—	1,810	1,810	0.07	0.01	—	1,817
Dust From Material Movement	—	—	—	—	—	—	6.55	6.55	—	3.37	3.37	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.06	0.89	6.61	7.98	0.02	0.24	—	0.24	0.22	—	0.22	—	1,810	1,810	0.07	0.01	—	1,817
Dust From Material Movement	—	—	—	—	—	—	6.55	6.55	—	3.37	3.37	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	0.29	2.17	2.63	0.01	0.08	—	0.08	0.07	—	0.07	—	595	595	0.02	< 0.005	—	597
Dust From Material Movement	—	—	—	—	—	—	2.15	2.15	—	1.11	1.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.40	0.48	< 0.005	0.01	—	0.01	0.01	—	0.01	—	98.5	98.5	< 0.005	< 0.005	—	98.9
Dust From Material Movement	—	—	—	—	—	—	0.39	0.39	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.24	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	70.6	70.6	< 0.005	< 0.005	0.08	70.8

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.18	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	63.6	63.6	< 0.005	< 0.005	< 0.005	63.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.3	21.3	< 0.005	< 0.005	0.01	21.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.53	3.53	< 0.005	< 0.005	< 0.005	3.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Grading (2037) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.18	1.48	9.75	0.02	0.03	—	0.03	0.03	—	0.03	—	1,810	1,810	0.07	0.01	—	1,817

Dust From Material Movement	—	—	—	—	—	—	1.70	1.70	—	0.88	0.88	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.18	1.48	9.75	0.02	0.03	—	0.03	0.03	—	0.03	—	1,810	1,810	0.07	0.01	—	1,817
Dust From Material Movement	—	—	—	—	—	—	1.70	1.70	—	0.88	0.88	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.06	0.49	3.21	0.01	0.01	—	0.01	0.01	—	0.01	—	595	595	0.02	< 0.005	—	597
Dust From Material Movement	—	—	—	—	—	—	0.56	0.56	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.58	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	98.5	98.5	< 0.005	< 0.005	—	98.9
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.24	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	70.6	70.6	< 0.005	< 0.005	0.08	70.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.18	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	63.6	63.6	< 0.005	< 0.005	< 0.005	63.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.3	21.3	< 0.005	< 0.005	0.01	21.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.53	3.53	< 0.005	< 0.005	< 0.005	3.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetatio	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/1/2037	6/17/2037	5.00	120	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Rubber Tired Loaders	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	7.50	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	7.50	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	—	—	13.8	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Recreational	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2037	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14

Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967

Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0

Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0

Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per client's data.
Construction: Dust From Material Movement	Per client's data.
Construction: Off-Road Equipment	Per client's data.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV vineyard Year 18
Construction Start Date	1/1/2042
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Recreational	13.8	User Defined Unit	13.8	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.93	0.78	5.36	7.10	0.02	0.17	6.63	6.80	0.16	3.39	3.54	—	1,879	1,879	0.07	0.02	0.04	1,885
Mit.	0.20	0.19	1.49	9.96	0.02	0.03	1.78	1.81	0.03	0.89	0.93	—	1,879	1,879	0.07	0.02	0.04	1,885
% Reduced	79%	75%	72%	-40%	—	80%	73%	73%	79%	74%	74%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.93	0.78	5.36	7.05	0.02	0.17	6.63	6.80	0.16	3.39	3.54	—	1,872	1,872	0.07	0.02	< 0.005	1,878
Mit.	0.19	0.19	1.49	9.91	0.02	0.03	1.78	1.81	0.03	0.89	0.93	—	1,872	1,872	0.07	0.02	< 0.005	1,878
% Reduced	79%	75%	72%	-40%	—	80%	73%	73%	79%	74%	74%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.31	0.26	1.76	2.32	0.01	0.06	2.18	2.24	0.05	1.11	1.17	—	616	616	0.02	< 0.005	0.01	618

Mit.	0.06	0.06	0.49	3.26	0.01	0.01	0.58	0.60	0.01	0.29	0.30	—	616	616	0.02	< 0.005	0.01	618
% Reduced	79%	75%	72%	-40%	—	80%	73%	73%	79%	74%	74%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.06	0.05	0.32	0.42	< 0.005	0.01	0.40	0.41	0.01	0.20	0.21	—	102	102	< 0.005	< 0.005	< 0.005	102
Mit.	0.01	0.01	0.09	0.59	< 0.005	< 0.005	0.11	0.11	< 0.005	0.05	0.06	—	102	102	< 0.005	< 0.005	< 0.005	102
% Reduced	79%	75%	72%	-40%	—	80%	73%	73%	79%	74%	74%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.93	0.78	5.36	7.10	0.02	0.17	6.63	6.80	0.16	3.39	3.54	—	1,879	1,879	0.07	0.02	0.04	1,885
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.93	0.78	5.36	7.05	0.02	0.17	6.63	6.80	0.16	3.39	3.54	—	1,872	1,872	0.07	0.02	< 0.005	1,878
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.31	0.26	1.76	2.32	0.01	0.06	2.18	2.24	0.05	1.11	1.17	—	616	616	0.02	< 0.005	0.01	618
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.06	0.05	0.32	0.42	< 0.005	0.01	0.40	0.41	0.01	0.20	0.21	—	102	102	< 0.005	< 0.005	< 0.005	102

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.20	0.19	1.49	9.96	0.02	0.03	1.78	1.81	0.03	0.89	0.93	—	1,879	1,879	0.07	0.02	0.04	1,885
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.19	0.19	1.49	9.91	0.02	0.03	1.78	1.81	0.03	0.89	0.93	—	1,872	1,872	0.07	0.02	< 0.005	1,878
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.06	0.06	0.49	3.26	0.01	0.01	0.58	0.60	0.01	0.29	0.30	—	616	616	0.02	< 0.005	0.01	618
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2042	0.01	0.01	0.09	0.59	< 0.005	< 0.005	0.11	0.11	< 0.005	0.05	0.06	—	102	102	< 0.005	< 0.005	< 0.005	102

3. Construction Emissions Details

3.1. Grading (2042) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.77	5.35	6.89	0.02	0.17	—	0.17	0.16	—	0.16	—	1,811	1,811	0.07	0.01	—	1,817
Dust From Material Movement	—	—	—	—	—	—	6.55	6.55	—	3.37	3.37	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.77	5.35	6.89	0.02	0.17	—	0.17	0.16	—	0.16	—	1,811	1,811	0.07	0.01	—	1,817
Dust From Material Movement	—	—	—	—	—	—	6.55	6.55	—	3.37	3.37	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	1.76	2.27	0.01	0.06	—	0.06	0.05	—	0.05	—	595	595	0.02	< 0.005	—	597
Dust From Material Movement	—	—	—	—	—	—	2.15	2.15	—	1.11	1.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.32	0.41	< 0.005	0.01	—	0.01	0.01	—	0.01	—	98.5	98.5	< 0.005	< 0.005	—	98.9
Dust From Material Movement	—	—	—	—	—	—	0.39	0.39	—	0.20	0.20	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.21	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	68.1	68.1	< 0.005	< 0.005	0.04	68.3

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.16	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	61.4	61.4	< 0.005	< 0.005	< 0.005	61.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.05	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.6	20.6	< 0.005	< 0.005	0.01	20.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.41	3.41	< 0.005	< 0.005	< 0.005	3.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Grading (2042) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.18	1.48	9.75	0.02	0.03	—	0.03	0.03	—	0.03	—	1,811	1,811	0.07	0.01	—	1,817

Dust From Material Movement	—	—	—	—	—	—	1.70	1.70	—	0.88	0.88	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.18	1.48	9.75	0.02	0.03	—	0.03	0.03	—	0.03	—	1,811	1,811	0.07	0.01	—	1,817
Dust From Material Movement	—	—	—	—	—	—	1.70	1.70	—	0.88	0.88	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.06	0.49	3.21	0.01	0.01	—	0.01	0.01	—	0.01	—	595	595	0.02	< 0.005	—	597
Dust From Material Movement	—	—	—	—	—	—	0.56	0.56	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.58	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	98.5	98.5	< 0.005	< 0.005	—	98.9
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.21	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	68.1	68.1	< 0.005	< 0.005	0.04	68.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.16	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	61.4	61.4	< 0.005	< 0.005	< 0.005	61.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.05	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.6	20.6	< 0.005	< 0.005	0.01	20.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.41	3.41	< 0.005	< 0.005	< 0.005	3.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetatio	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Grading	Grading	1/1/2042	6/17/2042	5.00	120	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Rubber Tired Loaders	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Grading	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	7.50	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	7.50	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	—	—	13.8	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Recreational	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2042	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14

Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967

Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0

Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0

Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per client's data
Construction: Construction Phases	Per client's data.
Construction: Dust From Material Movement	Per client's data.
Construction: Off-Road Equipment	Per client's data.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team

Operations Modeling

MV OP 01 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 01
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	102	Dwelling Unit	12.0	108,120	0.00	—	259	—

Apartments Low Rise	63.0	Dwelling Unit	3.00	66,780	0.00	—	160	—
Single Family Housing	220	Dwelling Unit	77.0	429,000	2,576,829	—	559	—
Junior High School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	0.00	1000sqft	0.00	0.00	0.00	—	—	—
General Office Building	0.00	1000sqft	0.00	0.00	0.00	—	—	—
City Park	7.00	Acre	7.00	0.00	7.00	7.00	—	—
Other Asphalt Surfaces	0.00	Acre	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	19.9	36.5	18.7	111	0.22	0.85	13.7	14.6	0.84	3.50	4.33	156	28,130	28,286	16.9	0.90	59.1	29,037
Mit.	19.9	36.5	18.7	111	0.22	0.85	13.7	14.6	0.84	3.50	4.33	156	28,129	28,285	16.9	0.90	59.1	29,036
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.2	32.9	20.1	85.8	0.21	0.84	13.7	14.6	0.83	3.50	4.33	156	26,890	27,046	17.1	0.98	5.75	27,772
Mit.	16.2	32.9	20.1	85.8	0.21	0.84	13.7	14.6	0.83	3.50	4.33	156	26,890	27,046	17.1	0.98	5.75	27,771
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.7	33.7	15.2	92.0	0.18	0.48	13.6	14.1	0.47	3.47	3.95	156	21,489	21,645	16.9	0.94	28.0	22,376
Mit.	16.7	33.7	15.2	92.0	0.18	0.48	13.6	14.1	0.47	3.47	3.95	156	21,489	21,644	16.9	0.94	28.0	22,376
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.05	6.14	2.78	16.8	0.03	0.09	2.49	2.58	0.09	0.63	0.72	25.8	3,558	3,584	2.80	0.16	4.63	3,705
Mit.	3.05	6.14	2.78	16.8	0.03	0.09	2.49	2.58	0.09	0.63	0.72	25.8	3,558	3,583	2.80	0.16	4.63	3,705
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	16.9	16.0	10.3	85.4	0.17	0.18	13.7	13.9	0.17	3.50	3.66	—	17,030	17,030	0.86	0.83	54.8	17,353
Area	2.70	20.4	5.96	24.3	0.04	0.48	—	0.48	0.47	—	0.47	0.00	7,354	7,354	0.14	0.01	—	7,362
Energy	0.29	0.14	2.46	1.04	0.02	0.20	—	0.20	0.20	—	0.20	—	3,724	3,724	0.28	0.01	—	3,733
Water	—	—	—	—	—	—	—	—	—	—	—	23.6	21.1	44.7	2.42	0.06	—	122

Waste	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	462
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.33	4.33
Total	19.9	36.5	18.7	111	0.22	0.85	13.7	14.6	0.84	3.50	4.33	156	28,130	28,286	16.9	0.90	59.1	29,037
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	15.2	14.3	11.9	82.4	0.16	0.18	13.7	13.9	0.17	3.50	3.66	—	15,849	15,849	1.03	0.91	1.42	16,146
Area	0.67	18.4	5.75	2.45	0.04	0.46	—	0.46	0.46	—	0.46	0.00	7,296	7,296	0.14	0.01	—	7,303
Energy	0.29	0.14	2.46	1.04	0.02	0.20	—	0.20	0.20	—	0.20	—	3,724	3,724	0.28	0.01	—	3,733
Water	—	—	—	—	—	—	—	—	—	—	—	23.6	21.1	44.7	2.42	0.06	—	122
Waste	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	462
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.33	4.33
Total	16.2	32.9	20.1	85.8	0.21	0.84	13.7	14.6	0.83	3.50	4.33	156	26,890	27,046	17.1	0.98	5.75	27,772
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	15.3	14.4	11.4	79.6	0.16	0.18	13.6	13.8	0.17	3.47	3.64	—	16,076	16,076	0.96	0.88	23.7	16,385
Area	1.15	19.1	1.39	11.3	0.01	0.11	—	0.11	0.11	—	0.11	0.00	1,668	1,668	0.03	< 0.005	—	1,670
Energy	0.29	0.14	2.46	1.04	0.02	0.20	—	0.20	0.20	—	0.20	—	3,724	3,724	0.28	0.01	—	3,733
Water	—	—	—	—	—	—	—	—	—	—	—	23.6	21.1	44.7	2.42	0.06	—	122
Waste	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	462
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.33	4.33
Total	16.7	33.7	15.2	92.0	0.18	0.48	13.6	14.1	0.47	3.47	3.95	156	21,489	21,645	16.9	0.94	28.0	22,376
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.79	2.63	2.07	14.5	0.03	0.03	2.49	2.52	0.03	0.63	0.66	—	2,662	2,662	0.16	0.15	3.92	2,713
Area	0.21	3.49	0.25	2.07	< 0.005	0.02	—	0.02	0.02	—	0.02	0.00	276	276	0.01	< 0.005	—	276
Energy	0.05	0.03	0.45	0.19	< 0.005	0.04	—	0.04	0.04	—	0.04	—	617	617	0.05	< 0.005	—	618
Water	—	—	—	—	—	—	—	—	—	—	—	3.91	3.49	7.40	0.40	0.01	—	20.2
Waste	—	—	—	—	—	—	—	—	—	—	—	21.9	0.00	21.9	2.19	0.00	—	76.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.72	0.72

Total	3.05	6.14	2.78	16.8	0.03	0.09	2.49	2.58	0.09	0.63	0.72	25.8	3,558	3,584	2.80	0.16	4.63	3,705

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	16.9	16.0	10.3	85.4	0.17	0.18	13.7	13.9	0.17	3.50	3.66	—	17,030	17,030	0.86	0.83	54.8	17,353
Area	2.70	20.4	5.96	24.3	0.04	0.48	—	0.48	0.47	—	0.47	0.00	7,354	7,354	0.14	0.01	—	7,362
Energy	0.29	0.14	2.46	1.04	0.02	0.20	—	0.20	0.20	—	0.20	—	3,724	3,724	0.28	0.01	—	3,732
Water	—	—	—	—	—	—	—	—	—	—	—	23.6	21.1	44.7	2.42	0.06	—	122
Waste	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	462
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.33	4.33
Total	19.9	36.5	18.7	111	0.22	0.85	13.7	14.6	0.84	3.50	4.33	156	28,129	28,285	16.9	0.90	59.1	29,036
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	15.2	14.3	11.9	82.4	0.16	0.18	13.7	13.9	0.17	3.50	3.66	—	15,849	15,849	1.03	0.91	1.42	16,146
Area	0.67	18.4	5.75	2.45	0.04	0.46	—	0.46	0.46	—	0.46	0.00	7,296	7,296	0.14	0.01	—	7,303
Energy	0.29	0.14	2.46	1.04	0.02	0.20	—	0.20	0.20	—	0.20	—	3,724	3,724	0.28	0.01	—	3,732
Water	—	—	—	—	—	—	—	—	—	—	—	23.6	21.1	44.7	2.42	0.06	—	122
Waste	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	462
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.33	4.33
Total	16.2	32.9	20.1	85.8	0.21	0.84	13.7	14.6	0.83	3.50	4.33	156	26,890	27,046	17.1	0.98	5.75	27,771
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	15.3	14.4	11.4	79.6	0.16	0.18	13.6	13.8	0.17	3.47	3.64	—	16,076	16,076	0.96	0.88	23.7	16,385
Area	1.15	19.1	1.39	11.3	0.01	0.11	—	0.11	0.11	—	0.11	0.00	1,668	1,668	0.03	< 0.005	—	1,670

Energy	0.29	0.14	2.46	1.04	0.02	0.20	—	0.20	0.20	—	0.20	—	3,724	3,724	0.28	0.01	—	3,732
Water	—	—	—	—	—	—	—	—	—	—	—	23.6	21.1	44.7	2.42	0.06	—	122
Waste	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	462
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.33	4.33
Total	16.7	33.7	15.2	92.0	0.18	0.48	13.6	14.1	0.47	3.47	3.95	156	21,489	21,644	16.9	0.94	28.0	22,376
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.79	2.63	2.07	14.5	0.03	0.03	2.49	2.52	0.03	0.63	0.66	—	2,662	2,662	0.16	0.15	3.92	2,713
Area	0.21	3.49	0.25	2.07	< 0.005	0.02	—	0.02	0.02	—	0.02	0.00	276	276	0.01	< 0.005	—	276
Energy	0.05	0.03	0.45	0.19	< 0.005	0.04	—	0.04	0.04	—	0.04	—	617	617	0.05	< 0.005	—	618
Water	—	—	—	—	—	—	—	—	—	—	—	3.91	3.49	7.40	0.40	0.01	—	20.2
Waste	—	—	—	—	—	—	—	—	—	—	—	21.9	0.00	21.9	2.19	0.00	—	76.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.72	0.72
Total	3.05	6.14	2.78	16.8	0.03	0.09	2.49	2.58	0.09	0.63	0.72	25.8	3,558	3,583	2.80	0.16	4.63	3,705

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	119	119	0.00	0.00	—	119
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	63.4	63.4	0.00	0.00	—	63.4
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	425	425	0.00	0.00	—	425
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	607	607	0.00	0.00	—	607
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	119	119	0.00	0.00	—	119
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	63.4	63.4	0.00	0.00	—	63.4

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	425	425	0.00	0.00	—	425
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	607	607	0.00	0.00	—	607
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	19.7	19.7	0.00	0.00	—	19.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	0.00	0.00	—	10.5
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	70.3	70.3	0.00	0.00	—	70.3
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	101	101	0.00	0.00	—	101

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	119	119	0.00	0.00	—	119
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	63.4	63.4	0.00	0.00	—	63.4
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	424	424	0.00	0.00	—	424
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	607	607	0.00	0.00	—	607
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	119	119	0.00	0.00	—	119
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	63.4	63.4	0.00	0.00	—	63.4
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	424	424	0.00	0.00	—	424
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	607	607	0.00	0.00	—	607

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	19.7	19.7	0.00	0.00	—	19.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	0.00	0.00	—	10.5
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	70.3	70.3	0.00	0.00	—	70.3
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	100	100	0.00	0.00	—	100

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	0.07	0.03	0.60	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	759	759	0.07	< 0.005	—	761
Apartments Low Rise	0.03	0.01	0.24	0.10	< 0.005	0.02	—	0.02	0.02	—	0.02	—	307	307	0.03	< 0.005	—	308
Single Family Housing	0.19	0.09	1.62	0.69	0.01	0.13	—	0.13	0.13	—	0.13	—	2,051	2,051	0.18	< 0.005	—	2,057
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.29	0.14	2.46	1.04	0.02	0.20	—	0.20	0.20	—	0.20	—	3,117	3,117	0.28	0.01	—	3,126
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.07	0.03	0.60	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	759	759	0.07	< 0.005	—	761
Apartments Low Rise	0.03	0.01	0.24	0.10	< 0.005	0.02	—	0.02	0.02	—	0.02	—	307	307	0.03	< 0.005	—	308
Single Family Housing	0.19	0.09	1.62	0.69	0.01	0.13	—	0.13	0.13	—	0.13	—	2,051	2,051	0.18	< 0.005	—	2,057

Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.29	0.14	2.46	1.04	0.02	0.20	—	0.20	0.20	—	0.20	—	3,117	3,117	0.28	0.01	—	3,126
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.01	0.01	0.11	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	126	126	0.01	< 0.005	—	126
Apartments Low Rise	0.01	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	50.8	50.8	< 0.005	< 0.005	—	50.9
Single Family Housing	0.03	0.02	0.29	0.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	340	340	0.03	< 0.005	—	341
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.05	0.03	0.45	0.19	< 0.005	0.04	—	0.04	0.04	—	0.04	—	516	516	0.05	< 0.005	—	517

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.07	0.03	0.60	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	759	759	0.07	< 0.005	—	761
Apartments Low Rise	0.03	0.01	0.24	0.10	< 0.005	0.02	—	0.02	0.02	—	0.02	—	307	307	0.03	< 0.005	—	308
Single Family Housing	0.19	0.09	1.62	0.69	0.01	0.13	—	0.13	0.13	—	0.13	—	2,051	2,051	0.18	< 0.005	—	2,057
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.29	0.14	2.46	1.04	0.02	0.20	—	0.20	0.20	—	0.20	—	3,117	3,117	0.28	0.01	—	3,126
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.07	0.03	0.60	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	759	759	0.07	< 0.005	—	761
Apartments Low Rise	0.03	0.01	0.24	0.10	< 0.005	0.02	—	0.02	0.02	—	0.02	—	307	307	0.03	< 0.005	—	308
Single Family Housing	0.19	0.09	1.62	0.69	0.01	0.13	—	0.13	0.13	—	0.13	—	2,051	2,051	0.18	< 0.005	—	2,057
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.29	0.14	2.46	1.04	0.02	0.20	—	0.20	0.20	—	0.20	—	3,117	3,117	0.28	0.01	—	3,126
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.01	0.01	0.11	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	126	126	0.01	< 0.005	—	126

Apartme Low Rise	0.01	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	50.8	50.8	< 0.005	< 0.005	—	50.9
Single Family Housing	0.03	0.02	0.29	0.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	340	340	0.03	< 0.005	—	341
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Element ary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.05	0.03	0.45	0.19	< 0.005	0.04	—	0.04	0.04	—	0.04	—	516	516	0.05	< 0.005	—	517

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.67	0.34	5.75	2.45	0.04	0.46	—	0.46	0.46	—	0.46	0.00	7,296	7,296	0.14	0.01	—	7,303
Consum er Products	—	12.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	5.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.02	1.92	0.21	21.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	58.4	58.4	< 0.005	< 0.005	—	58.6
Total	2.70	20.4	5.96	24.3	0.04	0.48	—	0.48	0.47	—	0.47	0.00	7,354	7,354	0.14	0.01	—	7,362
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.67	0.34	5.75	2.45	0.04	0.46	—	0.46	0.46	—	0.46	0.00	7,296	7,296	0.14	0.01	—	7,303
Consumer Products	—	12.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	5.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.67	18.4	5.75	2.45	0.04	0.46	—	0.46	0.46	—	0.46	0.00	7,296	7,296	0.14	0.01	—	7,303
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.03	0.01	0.24	0.10	< 0.005	0.02	—	0.02	0.02	—	0.02	0.00	271	271	0.01	< 0.005	—	272
Consumer Products	—	2.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.18	0.17	0.02	1.97	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.77	4.77	< 0.005	< 0.005	—	4.78
Total	0.21	3.49	0.25	2.07	< 0.005	0.02	—	0.02	0.02	—	0.02	0.00	276	276	0.01	< 0.005	—	276

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.67	0.34	5.75	2.45	0.04	0.46	—	0.46	0.46	—	0.46	0.00	7,296	7,296	0.14	0.01	—	7,303
Consumer Products	—	12.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	5.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.02	1.92	0.21	21.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	58.4	58.4	< 0.005	< 0.005	—	58.6
Total	2.70	20.4	5.96	24.3	0.04	0.48	—	0.48	0.47	—	0.47	0.00	7,354	7,354	0.14	0.01	—	7,362
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.67	0.34	5.75	2.45	0.04	0.46	—	0.46	0.46	—	0.46	0.00	7,296	7,296	0.14	0.01	—	7,303
Consumer Products	—	12.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	5.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.67	18.4	5.75	2.45	0.04	0.46	—	0.46	0.46	—	0.46	0.00	7,296	7,296	0.14	0.01	—	7,303
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.03	0.01	0.24	0.10	< 0.005	0.02	—	0.02	0.02	—	0.02	0.00	271	271	0.01	< 0.005	—	272
Consumer Products	—	2.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	0.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.18	0.17	0.02	1.97	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.77	4.77	< 0.005	< 0.005	—	4.78
Total	0.21	3.49	0.25	2.07	< 0.005	0.02	—	0.02	0.02	—	0.02	0.00	276	276	0.01	< 0.005	—	276

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.25	2.31	8.56	0.64	0.02	—	29.1
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	3.86	1.43	5.29	0.40	0.01	—	18.0
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	13.5	17.3	30.8	1.38	0.03	—	75.2
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.6	21.1	44.7	2.42	0.06	—	122
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.25	2.31	8.56	0.64	0.02	—	29.1
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	3.86	1.43	5.29	0.40	0.01	—	18.0
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	13.5	17.3	30.8	1.38	0.03	—	75.2
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.6	21.1	44.7	2.42	0.06	—	122

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	1.04	0.38	1.42	0.11	< 0.005	—	4.82
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	0.64	0.24	0.88	0.07	< 0.005	—	2.98
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.23	2.87	5.10	0.23	0.01	—	12.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.91	3.49	7.40	0.40	0.01	—	20.2

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	6.25	2.31	8.56	0.64	0.02	—	29.1
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	3.86	1.43	5.29	0.40	0.01	—	18.0
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	13.5	17.3	30.8	1.38	0.03	—	75.2
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.6	21.1	44.7	2.42	0.06	—	122
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.25	2.31	8.56	0.64	0.02	—	29.1
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	3.86	1.43	5.29	0.40	0.01	—	18.0
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	13.5	17.3	30.8	1.38	0.03	—	75.2

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.6	21.1	44.7	2.42	0.06	—	122
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	1.04	0.38	1.42	0.11	< 0.005	—	4.82
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	0.64	0.24	0.88	0.07	< 0.005	—	2.98
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	2.23	2.87	5.10	0.23	0.01	—	12.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.91	3.49	7.40	0.40	0.01	—	20.2

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	40.6	0.00	40.6	4.06	0.00	—	142
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	25.1	0.00	25.1	2.51	0.00	—	87.8
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	66.1	0.00	66.1	6.61	0.00	—	231
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	462
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	40.6	0.00	40.6	4.06	0.00	—	142
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	25.1	0.00	25.1	2.51	0.00	—	87.8
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	66.1	0.00	66.1	6.61	0.00	—	231
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	462
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.73	0.00	6.73	0.67	0.00	—	23.5
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	4.16	0.00	4.16	0.42	0.00	—	14.5
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	10.9	0.00	10.9	1.09	0.00	—	38.3
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	21.9	0.00	21.9	2.19	0.00	—	76.5

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	40.6	0.00	40.6	4.06	0.00	—	142
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	25.1	0.00	25.1	2.51	0.00	—	87.8
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	66.1	0.00	66.1	6.61	0.00	—	231
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	462
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	40.6	0.00	40.6	4.06	0.00	—	142
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	25.1	0.00	25.1	2.51	0.00	—	87.8
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	66.1	0.00	66.1	6.61	0.00	—	231

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	462
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.73	0.00	6.73	0.67	0.00	—	23.5
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	4.16	0.00	4.16	0.42	0.00	—	14.5
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	10.9	0.00	10.9	1.09	0.00	—	38.3
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	21.9	0.00	21.9	2.19	0.00	—	76.5

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.77	0.77
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.48	0.48
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.07	3.07
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.33	4.33
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.77	0.77
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.48	0.48
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.07	3.07
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.33	4.33
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.51	0.51
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.72	0.72

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.77	0.77
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.48	0.48
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.07	3.07

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.33	4.33
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.77	0.77
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.48	0.48
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.07	3.07
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.33	4.33
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.51	0.51
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.72	0.72

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	3,246	3,246	3,246	1,184,725	19,270	19,270	19,270	7,033,523

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	3,246	3,246	3,246	1,184,725	19,270	19,270	19,270	7,033,523

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	92
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	57
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	198

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	92
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	57
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	198
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
1222897.5	407,633	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	526,235	82.6	0.0000	0.0000	2,368,434
Apartments Low Rise	280,027	82.6	0.0000	0.0000	957,545
Single Family Housing	1,875,656	82.6	0.0000	0.0000	6,399,806
Junior High School	0.00	82.6	0.0000	0.0000	0.00
Elementary School	0.00	82.6	0.0000	0.0000	0.00
Strip Mall	0.00	82.6	0.0000	0.0000	0.00
General Office Building	0.00	82.6	0.0000	0.0000	0.00
City Park	0.00	82.6	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	82.6	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	525,732	82.6	0.0000	0.0000	2,368,434
Apartments Low Rise	279,871	82.6	0.0000	0.0000	957,545
Single Family Housing	1,874,390	82.6	0.0000	0.0000	6,399,806
Junior High School	0.00	82.6	0.0000	0.0000	0.00
Elementary School	0.00	82.6	0.0000	0.0000	0.00
Strip Mall	0.00	82.6	0.0000	0.0000	0.00
General Office Building	0.00	82.6	0.0000	0.0000	0.00

City Park	0.00	82.6	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	82.6	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	3,262,465	0.00
Apartments Low Rise	2,015,052	0.00
Single Family Housing	7,036,689	33,799,220
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	0.00	0.00
General Office Building	0.00	0.00
City Park	0.00	167
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	3,262,465	0.00
Apartments Low Rise	2,015,052	0.00
Single Family Housing	7,036,689	33,799,220
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	0.00	0.00
General Office Building	0.00	0.00
City Park	0.00	167

Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	75.4	—
Apartments Low Rise	46.6	—
Single Family Housing	123	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	0.00	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	75.4	—
Apartments Low Rise	46.6	—
Single Family Housing	123	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	0.00	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9

AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—

Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8

Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team

MV OP 02 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 02
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	153	Dwelling Unit	18.0	162,180	0.00	—	389	—

Apartments Low Rise	126	Dwelling Unit	6.00	133,560	0.00	—	320	—
Single Family Housing	330	Dwelling Unit	115	643,500	3,865,243	—	838	—
Junior High School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	0.00	1000sqft	0.00	0.00	0.00	—	—	—
General Office Building	0.00	1000sqft	0.00	0.00	0.00	—	—	—
City Park	7.00	Acre	7.00	0.00	7.00	7.00	—	—
Other Asphalt Surfaces	6.00	Acre	6.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	30.0	56.0	28.3	170	0.34	1.32	21.9	23.2	1.30	5.57	6.87	248	43,930	44,178	26.8	1.38	84.9	45,346
Mit.	30.0	56.0	28.3	170	0.34	1.32	21.9	23.2	1.30	5.57	6.87	248	43,930	44,178	26.8	1.38	84.9	45,346
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	24.4	50.5	30.3	130	0.32	1.30	21.9	23.2	1.29	5.57	6.86	248	41,990	42,238	27.1	1.51	8.75	43,372
Mit.	24.4	50.5	30.3	130	0.32	1.30	21.9	23.2	1.29	5.57	6.86	248	41,989	42,237	27.1	1.51	8.75	43,371
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	25.3	51.7	22.7	140	0.28	0.74	21.7	22.5	0.72	5.54	6.26	248	33,443	33,691	26.8	1.44	40.5	34,831
Mit.	25.3	51.7	22.7	140	0.28	0.74	21.7	22.5	0.72	5.54	6.26	248	33,442	33,690	26.8	1.44	40.5	34,831
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.61	9.43	4.14	25.6	0.05	0.14	3.97	4.10	0.13	1.01	1.14	41.1	5,537	5,578	4.44	0.24	6.70	5,767
Mit.	4.61	9.43	4.14	25.6	0.05	0.14	3.97	4.10	0.13	1.01	1.14	41.1	5,537	5,578	4.44	0.24	6.70	5,767
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	25.3	24.0	15.1	130	0.26	0.26	21.9	22.2	0.25	5.57	5.82	—	26,524	26,524	1.30	1.26	78.1	27,010
Area	4.24	31.7	9.42	38.5	0.06	0.75	—	0.75	0.75	—	0.75	0.00	11,633	11,633	0.22	0.02	—	11,645
Energy	0.45	0.22	3.80	1.62	0.02	0.31	—	0.31	0.31	—	0.31	—	5,742	5,742	0.43	0.01	—	5,756
Water	—	—	—	—	—	—	—	—	—	—	—	37.3	31.3	68.6	3.83	0.09	—	191

Waste	—	—	—	—	—	—	—	—	—	—	—	211	0.00	211	21.1	0.00	—	737
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Total	30.0	56.0	28.3	170	0.34	1.32	21.9	23.2	1.30	5.57	6.87	248	43,930	44,178	26.8	1.38	84.9	45,346
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	22.9	21.5	17.4	125	0.24	0.26	21.9	22.2	0.25	5.57	5.82	—	24,676	24,676	1.55	1.38	2.03	25,129
Area	1.06	28.7	9.09	3.87	0.06	0.74	—	0.74	0.74	—	0.74	0.00	11,541	11,541	0.22	0.02	—	11,553
Energy	0.45	0.22	3.80	1.62	0.02	0.31	—	0.31	0.31	—	0.31	—	5,742	5,742	0.43	0.01	—	5,756
Water	—	—	—	—	—	—	—	—	—	—	—	37.3	31.3	68.6	3.83	0.09	—	191
Waste	—	—	—	—	—	—	—	—	—	—	—	211	0.00	211	21.1	0.00	—	737
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Total	24.4	50.5	30.3	130	0.32	1.30	21.9	23.2	1.29	5.57	6.86	248	41,990	42,238	27.1	1.51	8.75	43,372
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	23.0	21.7	16.7	121	0.25	0.26	21.7	22.0	0.25	5.54	5.78	—	25,031	25,031	1.44	1.34	33.7	25,500
Area	1.81	29.8	2.20	17.9	0.01	0.17	—	0.17	0.17	—	0.17	0.00	2,638	2,638	0.05	0.01	—	2,641
Energy	0.45	0.22	3.80	1.62	0.02	0.31	—	0.31	0.31	—	0.31	—	5,742	5,742	0.43	0.01	—	5,756
Water	—	—	—	—	—	—	—	—	—	—	—	37.3	31.3	68.6	3.83	0.09	—	191
Waste	—	—	—	—	—	—	—	—	—	—	—	211	0.00	211	21.1	0.00	—	737
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Total	25.3	51.7	22.7	140	0.28	0.74	21.7	22.5	0.72	5.54	6.26	248	33,443	33,691	26.8	1.44	40.5	34,831
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.20	3.95	3.04	22.0	0.04	0.05	3.97	4.02	0.04	1.01	1.06	—	4,144	4,144	0.24	0.22	5.59	4,222
Area	0.33	5.44	0.40	3.27	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	437	437	0.01	< 0.005	—	437
Energy	0.08	0.04	0.69	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	951	951	0.07	< 0.005	—	953
Water	—	—	—	—	—	—	—	—	—	—	—	6.18	5.18	11.4	0.63	0.02	—	31.7
Waste	—	—	—	—	—	—	—	—	—	—	—	34.9	0.00	34.9	3.49	0.00	—	122
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.11	1.11

Total	4.61	9.43	4.14	25.6	0.05	0.14	3.97	4.10	0.13	1.01	1.14	41.1	5,537	5,578	4.44	0.24	6.70	5,767

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	25.3	24.0	15.1	130	0.26	0.26	21.9	22.2	0.25	5.57	5.82	—	26,524	26,524	1.30	1.26	78.1	27,010
Area	4.24	31.7	9.42	38.5	0.06	0.75	—	0.75	0.75	—	0.75	0.00	11,633	11,633	0.22	0.02	—	11,645
Energy	0.45	0.22	3.80	1.62	0.02	0.31	—	0.31	0.31	—	0.31	—	5,742	5,742	0.43	0.01	—	5,755
Water	—	—	—	—	—	—	—	—	—	—	—	37.3	31.3	68.6	3.83	0.09	—	191
Waste	—	—	—	—	—	—	—	—	—	—	—	211	0.00	211	21.1	0.00	—	737
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Total	30.0	56.0	28.3	170	0.34	1.32	21.9	23.2	1.30	5.57	6.87	248	43,930	44,178	26.8	1.38	84.9	45,346
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	22.9	21.5	17.4	125	0.24	0.26	21.9	22.2	0.25	5.57	5.82	—	24,676	24,676	1.55	1.38	2.03	25,129
Area	1.06	28.7	9.09	3.87	0.06	0.74	—	0.74	0.74	—	0.74	0.00	11,541	11,541	0.22	0.02	—	11,553
Energy	0.45	0.22	3.80	1.62	0.02	0.31	—	0.31	0.31	—	0.31	—	5,742	5,742	0.43	0.01	—	5,755
Water	—	—	—	—	—	—	—	—	—	—	—	37.3	31.3	68.6	3.83	0.09	—	191
Waste	—	—	—	—	—	—	—	—	—	—	—	211	0.00	211	21.1	0.00	—	737
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Total	24.4	50.5	30.3	130	0.32	1.30	21.9	23.2	1.29	5.57	6.86	248	41,989	42,237	27.1	1.51	8.75	43,371
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	23.0	21.7	16.7	121	0.25	0.26	21.7	22.0	0.25	5.54	5.78	—	25,031	25,031	1.44	1.34	33.7	25,500
Area	1.81	29.8	2.20	17.9	0.01	0.17	—	0.17	0.17	—	0.17	0.00	2,638	2,638	0.05	0.01	—	2,641

Energy	0.45	0.22	3.80	1.62	0.02	0.31	—	0.31	0.31	—	0.31	—	5,742	5,742	0.43	0.01	—	5,755
Water	—	—	—	—	—	—	—	—	—	—	—	37.3	31.3	68.6	3.83	0.09	—	191
Waste	—	—	—	—	—	—	—	—	—	—	—	211	0.00	211	21.1	0.00	—	737
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Total	25.3	51.7	22.7	140	0.28	0.74	21.7	22.5	0.72	5.54	6.26	248	33,442	33,690	26.8	1.44	40.5	34,831
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.20	3.95	3.04	22.0	0.04	0.05	3.97	4.02	0.04	1.01	1.06	—	4,144	4,144	0.24	0.22	5.59	4,222
Area	0.33	5.44	0.40	3.27	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	437	437	0.01	< 0.005	—	437
Energy	0.08	0.04	0.69	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	951	951	0.07	< 0.005	—	953
Water	—	—	—	—	—	—	—	—	—	—	—	6.18	5.18	11.4	0.63	0.02	—	31.7
Waste	—	—	—	—	—	—	—	—	—	—	—	34.9	0.00	34.9	3.49	0.00	—	122
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.11	1.11
Total	4.61	9.43	4.14	25.6	0.05	0.14	3.97	4.10	0.13	1.01	1.14	41.1	5,537	5,578	4.44	0.24	6.70	5,767

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	173	173	0.00	0.00	—	173
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	123	123	0.00	0.00	—	123
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	617	617	0.00	0.00	—	617
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	913	913	0.00	0.00	—	913
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	173	173	0.00	0.00	—	173
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	123	123	0.00	0.00	—	123

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	617	617	0.00	0.00	—	617
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	913	913	0.00	0.00	—	913
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	28.7	28.7	0.00	0.00	—	28.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	20.3	20.3	0.00	0.00	—	20.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	102	102	0.00	0.00	—	102
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	151	151	0.00	0.00	—	151

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	173	173	0.00	0.00	—	173
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	123	123	0.00	0.00	—	123
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	617	617	0.00	0.00	—	617
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	913	913	0.00	0.00	—	913
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	173	173	0.00	0.00	—	173
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	123	123	0.00	0.00	—	123
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	617	617	0.00	0.00	—	617
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	913	913	0.00	0.00	—	913

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	28.6	28.6	0.00	0.00	—	28.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	20.3	20.3	0.00	0.00	—	20.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	102	102	0.00	0.00	—	102
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	151	151	0.00	0.00	—	151

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	0.10	0.05	0.90	0.38	0.01	0.07	—	0.07	0.07	—	0.07	—	1,139	1,139	0.10	< 0.005	—	1,142
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.28	0.14	2.42	1.03	0.02	0.20	—	0.20	0.20	—	0.20	—	3,077	3,077	0.27	0.01	—	3,085
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.45	0.22	3.80	1.62	0.02	0.31	—	0.31	0.31	—	0.31	—	4,829	4,829	0.43	0.01	—	4,842
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.10	0.05	0.90	0.38	0.01	0.07	—	0.07	0.07	—	0.07	—	1,139	1,139	0.10	< 0.005	—	1,142
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.28	0.14	2.42	1.03	0.02	0.20	—	0.20	0.20	—	0.20	—	3,077	3,077	0.27	0.01	—	3,085

Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.45	0.22	3.80	1.62	0.02	0.31	—	0.31	0.31	—	0.31	—	4,829	4,829	0.43	0.01	—	4,842
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.02	0.01	0.16	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	189	189	0.02	< 0.005	—	189
Apartments Low Rise	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	102
Single Family Housing	0.05	0.03	0.44	0.19	< 0.005	0.04	—	0.04	0.04	—	0.04	—	509	509	0.05	< 0.005	—	511
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.08	0.04	0.69	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	799	799	0.07	< 0.005	—	802

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.10	0.05	0.90	0.38	0.01	0.07	—	0.07	0.07	—	0.07	—	1,139	1,139	0.10	< 0.005	—	1,142
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.28	0.14	2.42	1.03	0.02	0.20	—	0.20	0.20	—	0.20	—	3,077	3,077	0.27	0.01	—	3,085
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.45	0.22	3.80	1.62	0.02	0.31	—	0.31	0.31	—	0.31	—	4,829	4,829	0.43	0.01	—	4,842
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.10	0.05	0.90	0.38	0.01	0.07	—	0.07	0.07	—	0.07	—	1,139	1,139	0.10	< 0.005	—	1,142
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.28	0.14	2.42	1.03	0.02	0.20	—	0.20	0.20	—	0.20	—	3,077	3,077	0.27	0.01	—	3,085
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.45	0.22	3.80	1.62	0.02	0.31	—	0.31	0.31	—	0.31	—	4,829	4,829	0.43	0.01	—	4,842
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.02	0.01	0.16	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	189	189	0.02	< 0.005	—	189

Apartment Low Rise	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	102
Single Family Housing	0.05	0.03	0.44	0.19	< 0.005	0.04	—	0.04	0.04	—	0.04	—	509	509	0.05	< 0.005	—	511
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.08	0.04	0.69	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	799	799	0.07	< 0.005	—	802

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.06	0.53	9.09	3.87	0.06	0.74	—	0.74	0.74	—	0.74	0.00	11,541	11,541	0.22	0.02	—	11,553
Consumer Products	—	20.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	8.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	3.18	3.01	0.33	34.6	< 0.005	0.02	—	0.02	0.01	—	0.01	—	92.4	92.4	< 0.005	< 0.005	—	92.7
Total	4.24	31.7	9.42	38.5	0.06	0.75	—	0.75	0.75	—	0.75	0.00	11,633	11,633	0.22	0.02	—	11,645
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.06	0.53	9.09	3.87	0.06	0.74	—	0.74	0.74	—	0.74	0.00	11,541	11,541	0.22	0.02	—	11,553
Consumer Products	—	20.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	8.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.06	28.7	9.09	3.87	0.06	0.74	—	0.74	0.74	—	0.74	0.00	11,541	11,541	0.22	0.02	—	11,553
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.04	0.02	0.37	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	429	429	0.01	< 0.005	—	430
Consumer Products	—	3.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.29	0.27	0.03	3.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.54	7.54	< 0.005	< 0.005	—	7.57
Total	0.33	5.44	0.40	3.27	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	437	437	0.01	< 0.005	—	437

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.06	0.53	9.09	3.87	0.06	0.74	—	0.74	0.74	—	0.74	0.00	11,541	11,541	0.22	0.02	—	11,553
Consumer Products	—	20.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	8.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	3.18	3.01	0.33	34.6	< 0.005	0.02	—	0.02	0.01	—	0.01	—	92.4	92.4	< 0.005	< 0.005	—	92.7
Total	4.24	31.7	9.42	38.5	0.06	0.75	—	0.75	0.75	—	0.75	0.00	11,633	11,633	0.22	0.02	—	11,645
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.06	0.53	9.09	3.87	0.06	0.74	—	0.74	0.74	—	0.74	0.00	11,541	11,541	0.22	0.02	—	11,553
Consumer Products	—	20.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	8.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.06	28.7	9.09	3.87	0.06	0.74	—	0.74	0.74	—	0.74	0.00	11,541	11,541	0.22	0.02	—	11,553
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.04	0.02	0.37	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	429	429	0.01	< 0.005	—	430
Consumer Products	—	3.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	1.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.29	0.27	0.03	3.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.54	7.54	< 0.005	< 0.005	—	7.57
Total	0.33	5.44	0.40	3.27	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	437	437	0.01	< 0.005	—	437

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	9.38	3.36	12.7	0.96	0.02	—	43.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7.72	2.77	10.5	0.79	0.02	—	35.9
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	20.2	25.2	45.4	2.07	0.05	—	112
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	37.3	31.3	68.6	3.83	0.09	—	191
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	9.38	3.36	12.7	0.96	0.02	—	43.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7.72	2.77	10.5	0.79	0.02	—	35.9
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	20.2	25.2	45.4	2.07	0.05	—	112
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	37.3	31.3	68.6	3.83	0.09	—	191

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	1.55	0.56	2.11	0.16	< 0.005	—	7.22
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.28	0.46	1.74	0.13	< 0.005	—	5.94
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	3.35	4.17	7.52	0.34	0.01	—	18.5
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	6.18	5.18	11.4	0.63	0.02	—	31.7

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	9.38	3.36	12.7	0.96	0.02	—	43.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7.72	2.77	10.5	0.79	0.02	—	35.9
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	20.2	25.2	45.4	2.07	0.05	—	112
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	37.3	31.3	68.6	3.83	0.09	—	191
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	9.38	3.36	12.7	0.96	0.02	—	43.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7.72	2.77	10.5	0.79	0.02	—	35.9
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	20.2	25.2	45.4	2.07	0.05	—	112

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	37.3	31.3	68.6	3.83	0.09	—	191
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	1.55	0.56	2.11	0.16	< 0.005	—	7.22
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.28	0.46	1.74	0.13	< 0.005	—	5.94
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	3.35	4.17	7.52	0.34	0.01	—	18.5
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	6.18	5.18	11.4	0.63	0.02	—	31.7

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	61.0	0.00	61.0	6.10	0.00	—	214
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	99.1	0.00	99.1	9.90	0.00	—	347
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	211	0.00	211	21.1	0.00	—	737
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	61.0	0.00	61.0	6.10	0.00	—	214
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	99.1	0.00	99.1	9.90	0.00	—	347
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	211	0.00	211	21.1	0.00	—	737
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	10.1	0.00	10.1	1.01	0.00	—	35.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	8.31	0.00	8.31	0.83	0.00	—	29.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	16.4	0.00	16.4	1.64	0.00	—	57.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	34.9	0.00	34.9	3.49	0.00	—	122

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	61.0	0.00	61.0	6.10	0.00	—	214
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	99.1	0.00	99.1	9.90	0.00	—	347
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	211	0.00	211	21.1	0.00	—	737
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	61.0	0.00	61.0	6.10	0.00	—	214
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	99.1	0.00	99.1	9.90	0.00	—	347

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	211	0.00	211	21.1	0.00	—	737
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	10.1	0.00	10.1	1.01	0.00	—	35.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	8.31	0.00	8.31	0.83	0.00	—	29.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	16.4	0.00	16.4	1.64	0.00	—	57.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	34.9	0.00	34.9	3.49	0.00	—	122

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.16	1.16
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.61	4.61
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.16	1.16
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.61	4.61
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.19	0.19
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.76	0.76
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.11	1.11

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.16	1.16
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.61	4.61

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.16	1.16
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.61	4.61
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.73	6.73
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.19	0.19
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.76	0.76
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.11	1.11

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	5,098	5,098	5,098	1,860,630	30,719	30,719	30,719	11,212,550

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	5,098	5,098	5,098	1,860,630	30,719	30,719	30,719	11,212,550

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	138
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	113
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	297

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	138
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	113
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	297
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
1901961	633,987	0.00	0.00	15,682

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	789,352	80.1	0.0000	0.0000	3,552,652
Apartments Low Rise	560,053	80.1	0.0000	0.0000	1,915,091
Single Family Housing	2,813,484	80.1	0.0000	0.0000	9,599,708
Junior High School	0.00	80.1	0.0000	0.0000	0.00
Elementary School	0.00	80.1	0.0000	0.0000	0.00
Strip Mall	0.00	80.1	0.0000	0.0000	0.00
General Office Building	0.00	80.1	0.0000	0.0000	0.00
City Park	0.00	80.1	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	80.1	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	788,598	80.1	0.0000	0.0000	3,552,652
Apartments Low Rise	559,742	80.1	0.0000	0.0000	1,915,091
Single Family Housing	2,811,585	80.1	0.0000	0.0000	9,599,708
Junior High School	0.00	80.1	0.0000	0.0000	0.00
Elementary School	0.00	80.1	0.0000	0.0000	0.00
Strip Mall	0.00	80.1	0.0000	0.0000	0.00
General Office Building	0.00	80.1	0.0000	0.0000	0.00

City Park	0.00	80.1	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	80.1	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	4,893,697	0.00
Apartments Low Rise	4,030,104	0.00
Single Family Housing	10,555,034	50,698,823
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	0.00	0.00
General Office Building	0.00	0.00
City Park	0.00	167
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	4,893,697	0.00
Apartments Low Rise	4,030,104	0.00
Single Family Housing	10,555,034	50,698,823
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	0.00	0.00
General Office Building	0.00	0.00
City Park	0.00	167

Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	113	—
Apartments Low Rise	93.2	—
Single Family Housing	184	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	0.00	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	113	—
Apartments Low Rise	93.2	—
Single Family Housing	184	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	0.00	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9

AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—

Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8

Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team

MV OP 03 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 03
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	204	Dwelling Unit	24.0	216,240	0.00	—	518	—

Apartments Low Rise	126	Dwelling Unit	6.00	133,560	0.00	—	320	—
Single Family Housing	440	Dwelling Unit	154	858,000	5,153,657	—	1,118	—
Junior High School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	0.00	1000sqft	0.00	0.00	0.00	—	—	—
General Office Building	0.00	1000sqft	0.00	0.00	0.00	—	—	—
City Park	7.00	Acre	7.00	0.00	7.00	7.00	—	—
Other Asphalt Surfaces	6.00	Acre	6.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances
Energy	E-10-B	Establish Onsite Renewable Energy Systems: Solar Power

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	36.4	69.9	34.3	207	0.43	1.65	27.4	29.0	1.63	6.97	8.59	379	54,686	55,065	40.6	1.85	95.9	56,725
Mit.	36.4	69.9	34.3	207	0.43	1.65	27.4	29.0	1.63	6.97	8.59	379	53,745	54,124	40.6	1.85	95.9	55,784

% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	2%	2%	—	—	—	2%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	29.6	63.2	36.7	157	0.40	1.63	27.4	29.0	1.61	6.97	8.58	379	52,292	52,671	40.8	1.99	10.9	54,297
Mit.	29.6	63.2	36.7	157	0.40	1.63	27.4	29.0	1.61	6.97	8.58	379	51,352	51,730	40.8	1.99	10.9	53,357
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	2%	2%	—	—	—	2%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	30.6	64.7	27.1	170	0.35	0.92	27.2	28.1	0.90	6.92	7.82	379	41,474	41,853	40.5	1.92	46.3	43,484
Mit.	30.6	64.7	27.1	170	0.35	0.92	27.2	28.1	0.90	6.92	7.82	379	40,534	40,913	40.5	1.92	46.3	42,543
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	2%	2%	—	—	—	2%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.58	11.8	4.94	31.0	0.06	0.17	4.97	5.13	0.16	1.26	1.43	62.7	6,867	6,929	6.71	0.32	7.67	7,199
Mit.	5.58	11.8	4.94	31.0	0.06	0.17	4.97	5.13	0.16	1.26	1.43	62.7	6,711	6,774	6.71	0.32	7.67	7,043
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	2%	2%	—	—	—	2%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	30.5	28.9	17.5	156	0.32	0.30	27.4	27.7	0.28	6.97	7.25	—	32,538	32,538	1.56	1.53	87.2	33,119
Area	5.35	40.7	11.9	48.7	0.08	0.95	—	0.95	0.94	—	0.94	0.00	14,709	14,709	0.28	0.03	—	14,724

Energy	0.57	0.29	4.91	2.09	0.03	0.40	—	0.40	0.40	—	0.40	—	7,373	7,373	0.55	0.01	—	7,390
Water	—	—	—	—	—	—	—	—	—	—	—	115	66.2	181	11.8	0.28	—	559
Waste	—	—	—	—	—	—	—	—	—	—	—	264	0.00	264	26.4	0.00	—	924
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.65	8.65
Total	36.4	69.9	34.3	207	0.43	1.65	27.4	29.0	1.63	6.97	8.59	379	54,686	55,065	40.6	1.85	95.9	56,725
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	27.6	26.0	20.3	150	0.30	0.30	27.4	27.7	0.28	6.97	7.25	—	30,261	30,261	1.86	1.67	2.26	30,809
Area	1.35	36.9	11.5	4.89	0.07	0.93	—	0.93	0.93	—	0.93	0.00	14,592	14,592	0.27	0.03	—	14,607
Energy	0.57	0.29	4.91	2.09	0.03	0.40	—	0.40	0.40	—	0.40	—	7,373	7,373	0.55	0.01	—	7,390
Water	—	—	—	—	—	—	—	—	—	—	—	115	66.2	181	11.8	0.28	—	559
Waste	—	—	—	—	—	—	—	—	—	—	—	264	0.00	264	26.4	0.00	—	924
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.65	8.65
Total	29.6	63.2	36.7	157	0.40	1.63	27.4	29.0	1.61	6.97	8.58	379	52,292	52,671	40.8	1.99	10.9	54,297
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	27.7	26.1	19.4	145	0.30	0.30	27.2	27.5	0.28	6.92	7.21	—	30,699	30,699	1.73	1.62	37.7	31,263
Area	2.28	38.3	2.79	22.7	0.02	0.22	—	0.22	0.22	—	0.22	0.00	3,336	3,336	0.06	0.01	—	3,339
Energy	0.57	0.29	4.91	2.09	0.03	0.40	—	0.40	0.40	—	0.40	—	7,373	7,373	0.55	0.01	—	7,390
Water	—	—	—	—	—	—	—	—	—	—	—	115	66.2	181	11.8	0.28	—	559
Waste	—	—	—	—	—	—	—	—	—	—	—	264	0.00	264	26.4	0.00	—	924
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.65	8.65
Total	30.6	64.7	27.1	170	0.35	0.92	27.2	28.1	0.90	6.92	7.82	379	41,474	41,853	40.5	1.92	46.3	43,484
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.06	4.77	3.54	26.5	0.06	0.05	4.97	5.02	0.05	1.26	1.32	—	5,083	5,083	0.29	0.27	6.23	5,176
Area	0.42	6.98	0.51	4.14	< 0.005	0.04	—	0.04	0.04	—	0.04	0.00	552	552	0.01	< 0.005	—	553
Energy	0.10	0.05	0.90	0.38	0.01	0.07	—	0.07	0.07	—	0.07	—	1,221	1,221	0.09	< 0.005	—	1,224
Water	—	—	—	—	—	—	—	—	—	—	—	19.0	11.0	30.0	1.95	0.05	—	92.5

Waste	—	—	—	—	—	—	—	—	—	—	—	43.7	0.00	43.7	4.37	0.00	—	153
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.43	1.43
Total	5.58	11.8	4.94	31.0	0.06	0.17	4.97	5.13	0.16	1.26	1.43	62.7	6,867	6,929	6.71	0.32	7.67	7,199

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	30.5	28.9	17.5	156	0.32	0.30	27.4	27.7	0.28	6.97	7.25	—	32,538	32,538	1.56	1.53	87.2	33,119
Area	5.35	40.7	11.9	48.7	0.08	0.95	—	0.95	0.94	—	0.94	0.00	14,709	14,709	0.28	0.03	—	14,724
Energy	0.57	0.29	4.91	2.09	0.03	0.40	—	0.40	0.40	—	0.40	—	6,432	6,432	0.55	0.01	—	6,450
Water	—	—	—	—	—	—	—	—	—	—	—	115	66.2	181	11.8	0.28	—	559
Waste	—	—	—	—	—	—	—	—	—	—	—	264	0.00	264	26.4	0.00	—	924
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.65	8.65
Total	36.4	69.9	34.3	207	0.43	1.65	27.4	29.0	1.63	6.97	8.59	379	53,745	54,124	40.6	1.85	95.9	55,784
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	27.6	26.0	20.3	150	0.30	0.30	27.4	27.7	0.28	6.97	7.25	—	30,261	30,261	1.86	1.67	2.26	30,809
Area	1.35	36.9	11.5	4.89	0.07	0.93	—	0.93	0.93	—	0.93	0.00	14,592	14,592	0.27	0.03	—	14,607
Energy	0.57	0.29	4.91	2.09	0.03	0.40	—	0.40	0.40	—	0.40	—	6,432	6,432	0.55	0.01	—	6,450
Water	—	—	—	—	—	—	—	—	—	—	—	115	66.2	181	11.8	0.28	—	559
Waste	—	—	—	—	—	—	—	—	—	—	—	264	0.00	264	26.4	0.00	—	924
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.65	8.65
Total	29.6	63.2	36.7	157	0.40	1.63	27.4	29.0	1.61	6.97	8.58	379	51,352	51,730	40.8	1.99	10.9	53,357
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	27.7	26.1	19.4	145	0.30	0.30	27.2	27.5	0.28	6.92	7.21	—	30,699	30,699	1.73	1.62	37.7	31,263
Area	2.28	38.3	2.79	22.7	0.02	0.22	—	0.22	0.22	—	0.22	0.00	3,336	3,336	0.06	0.01	—	3,339
Energy	0.57	0.29	4.91	2.09	0.03	0.40	—	0.40	0.40	—	0.40	—	6,432	6,432	0.55	0.01	—	6,450
Water	—	—	—	—	—	—	—	—	—	—	—	115	66.2	181	11.8	0.28	—	559
Waste	—	—	—	—	—	—	—	—	—	—	—	264	0.00	264	26.4	0.00	—	924
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.65	8.65
Total	30.6	64.7	27.1	170	0.35	0.92	27.2	28.1	0.90	6.92	7.82	379	40,534	40,913	40.5	1.92	46.3	42,543
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.06	4.77	3.54	26.5	0.06	0.05	4.97	5.02	0.05	1.26	1.32	—	5,083	5,083	0.29	0.27	6.23	5,176
Area	0.42	6.98	0.51	4.14	< 0.005	0.04	—	0.04	0.04	—	0.04	0.00	552	552	0.01	< 0.005	—	553
Energy	0.10	0.05	0.90	0.38	0.01	0.07	—	0.07	0.07	—	0.07	—	1,065	1,065	0.09	< 0.005	—	1,068
Water	—	—	—	—	—	—	—	—	—	—	—	19.0	11.0	30.0	1.95	0.05	—	92.5
Waste	—	—	—	—	—	—	—	—	—	—	—	43.7	0.00	43.7	4.37	0.00	—	153
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.43	1.43
Total	5.58	11.8	4.94	31.0	0.06	0.17	4.97	5.13	0.16	1.26	1.43	62.7	6,711	6,774	6.71	0.32	7.67	7,043

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	224	224	0.00	0.00	—	224
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	119	119	0.00	0.00	—	119
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	797	797	0.00	0.00	—	797
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,139	1,139	0.00	0.00	—	1,139
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	224	224	0.00	0.00	—	224
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	119	119	0.00	0.00	—	119
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	797	797	0.00	0.00	—	797
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,139	1,139	0.00	0.00	—	1,139
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	37.0	37.0	0.00	0.00	—	37.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	19.7	19.7	0.00	0.00	—	19.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	132	132	0.00	0.00	—	132

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	189	189	0.00	0.00	—	189

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	198	198	0.00	0.00	—	198

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	198	198	0.00	0.00	—	198
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	198	198	0.00	0.00	—	198
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	198	198	0.00	0.00	—	198
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	32.9	32.9	0.00	0.00	—	32.9
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	32.9	32.9	0.00	0.00	—	32.9

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.14	0.07	1.20	0.51	0.01	0.10	—	0.10	0.10	—	0.10	—	1,518	1,518	0.13	< 0.005	—	1,522
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.38	0.19	3.23	1.38	0.02	0.26	—	0.26	0.26	—	0.26	—	4,102	4,102	0.36	0.01	—	4,113
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.57	0.29	4.91	2.09	0.03	0.40	—	0.40	0.40	—	0.40	—	6,234	6,234	0.55	0.01	—	6,251
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/T	0.14	0.07	1.20	0.51	0.01	0.10	—	0.10	0.10	—	0.10	—	1,518	1,518	0.13	< 0.005	—	1,522
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.38	0.19	3.23	1.38	0.02	0.26	—	0.26	0.26	—	0.26	—	4,102	4,102	0.36	0.01	—	4,113
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.57	0.29	4.91	2.09	0.03	0.40	—	0.40	0.40	—	0.40	—	6,234	6,234	0.55	0.01	—	6,251
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.03	0.01	0.22	0.09	< 0.005	0.02	—	0.02	0.02	—	0.02	—	251	251	0.02	< 0.005	—	252
Apartments Low Rise	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	102
Single Family Housing	0.07	0.03	0.59	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	679	679	0.06	< 0.005	—	681
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Element School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.10	0.05	0.90	0.38	0.01	0.07	—	0.07	0.07	—	0.07	—	1,032	1,032	0.09	< 0.005	—	1,035

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.14	0.07	1.20	0.51	0.01	0.10	—	0.10	0.10	—	0.10	—	1,518	1,518	0.13	< 0.005	—	1,522
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.38	0.19	3.23	1.38	0.02	0.26	—	0.26	0.26	—	0.26	—	4,102	4,102	0.36	0.01	—	4,113
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.57	0.29	4.91	2.09	0.03	0.40	—	0.40	0.40	—	0.40	—	6,234	6,234	0.55	0.01	—	6,251
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.14	0.07	1.20	0.51	0.01	0.10	—	0.10	0.10	—	0.10	—	1,518	1,518	0.13	< 0.005	—	1,522
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.38	0.19	3.23	1.38	0.02	0.26	—	0.26	0.26	—	0.26	—	4,102	4,102	0.36	0.01	—	4,113
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.57	0.29	4.91	2.09	0.03	0.40	—	0.40	0.40	—	0.40	—	6,234	6,234	0.55	0.01	—	6,251
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.03	0.01	0.22	0.09	< 0.005	0.02	—	0.02	0.02	—	0.02	—	251	251	0.02	< 0.005	—	252
Apartments Low Rise	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	102
Single Family Housing	0.07	0.03	0.59	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	679	679	0.06	< 0.005	—	681
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.10	0.05	0.90	0.38	0.01	0.07	—	0.07	0.07	—	0.07	—	1,032	1,032	0.09	< 0.005	—	1,035

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.35	0.67	11.5	4.89	0.07	0.93	—	0.93	0.93	—	0.93	0.00	14,592	14,592	0.27	0.03	—	14,607
Consumer Products	—	25.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	10.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	4.00	3.79	0.41	43.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	117	117	< 0.005	< 0.005	—	117
Total	5.35	40.7	11.9	48.7	0.08	0.95	—	0.95	0.94	—	0.94	0.00	14,709	14,709	0.28	0.03	—	14,724
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.35	0.67	11.5	4.89	0.07	0.93	—	0.93	0.93	—	0.93	0.00	14,592	14,592	0.27	0.03	—	14,607
Consumer Products	—	25.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	10.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.35	36.9	11.5	4.89	0.07	0.93	—	0.93	0.93	—	0.93	0.00	14,592	14,592	0.27	0.03	—	14,607
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.06	0.03	0.47	0.20	< 0.005	0.04	—	0.04	0.04	—	0.04	0.00	543	543	0.01	< 0.005	—	543
Consumer Products	—	4.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	0.36	0.34	0.04	3.94	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.54	9.54	< 0.005	< 0.005	—	9.57
Total	0.42	6.98	0.51	4.14	< 0.005	0.04	—	0.04	0.04	—	0.04	0.00	552	552	0.01	< 0.005	—	553

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.35	0.67	11.5	4.89	0.07	0.93	—	0.93	0.93	—	0.93	0.00	14,592	14,592	0.27	0.03	—	14,607
Consumer Products	—	25.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	10.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	4.00	3.79	0.41	43.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	117	117	< 0.005	< 0.005	—	117
Total	5.35	40.7	11.9	48.7	0.08	0.95	—	0.95	0.94	—	0.94	0.00	14,709	14,709	0.28	0.03	—	14,724
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.35	0.67	11.5	4.89	0.07	0.93	—	0.93	0.93	—	0.93	0.00	14,592	14,592	0.27	0.03	—	14,607
Consumer Products	—	25.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	10.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.35	36.9	11.5	4.89	0.07	0.93	—	0.93	0.93	—	0.93	0.00	14,592	14,592	0.27	0.03	—	14,607

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.06	0.03	0.47	0.20	< 0.005	0.04	—	0.04	0.04	—	0.04	0.00	543	543	0.01	< 0.005	—	543
Consumer Products	—	4.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.36	0.34	0.04	3.94	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.54	9.54	< 0.005	< 0.005	—	9.57
Total	0.42	6.98	0.51	4.14	< 0.005	0.04	—	0.04	0.04	—	0.04	0.00	552	552	0.01	< 0.005	—	553

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	23.8	12.7	36.5	2.44	0.06	—	115
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.18	3.31	9.48	0.63	0.02	—	29.8
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	84.9	45.5	130	8.71	0.21	—	410

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.27	2.27	0.00	0.00	—	2.27
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	2.50	2.50	0.00	0.00	—	2.50
Total	—	—	—	—	—	—	—	—	—	—	—	115	66.2	181	11.8	0.28	—	559
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	23.8	12.7	36.5	2.44	0.06	—	115
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.18	3.31	9.48	0.63	0.02	—	29.8
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	84.9	45.5	130	8.71	0.21	—	410
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.27	2.27	0.00	0.00	—	2.27
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	2.50	2.50	0.00	0.00	—	2.50
Total	—	—	—	—	—	—	—	—	—	—	—	115	66.2	181	11.8	0.28	—	559
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	3.93	2.10	6.04	0.40	0.01	—	19.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.02	0.55	1.57	0.10	< 0.005	—	4.93
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.1	7.53	21.6	1.44	0.03	—	67.8
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.38	0.38	0.00	0.00	—	0.38
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.41	0.41	0.00	0.00	—	0.41
Total	—	—	—	—	—	—	—	—	—	—	—	19.0	11.0	30.0	1.95	0.05	—	92.5

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	23.8	12.7	36.5	2.44	0.06	—	115
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.18	3.31	9.48	0.63	0.02	—	29.8
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	84.9	45.5	130	8.71	0.21	—	410
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.27	2.27	0.00	0.00	—	2.27
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	2.50	2.50	0.00	0.00	—	2.50
Total	—	—	—	—	—	—	—	—	—	—	—	115	66.2	181	11.8	0.28	—	559
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/T	—	—	—	—	—	—	—	—	—	—	—	23.8	12.7	36.5	2.44	0.06	—	115
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.18	3.31	9.48	0.63	0.02	—	29.8
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	84.9	45.5	130	8.71	0.21	—	410
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.27	2.27	0.00	0.00	—	2.27
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	2.50	2.50	0.00	0.00	—	2.50
Total	—	—	—	—	—	—	—	—	—	—	—	115	66.2	181	11.8	0.28	—	559
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	3.93	2.10	6.04	0.40	0.01	—	19.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.02	0.55	1.57	0.10	< 0.005	—	4.93
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.1	7.53	21.6	1.44	0.03	—	67.8
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Element School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.38	0.38	0.00	0.00	—	0.38
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.41	0.41	0.00	0.00	—	0.41
Total	—	—	—	—	—	—	—	—	—	—	—	19.0	11.0	30.0	1.95	0.05	—	92.5

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	81.3	0.00	81.3	8.12	0.00	—	284
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	462
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Element School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	264	0.00	264	26.4	0.00	—	924
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	81.3	0.00	81.3	8.12	0.00	—	284
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	462
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	264	0.00	264	26.4	0.00	—	924
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.34	0.00	—	47.1
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	8.31	0.00	8.31	0.83	0.00	—	29.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	21.9	0.00	21.9	2.19	0.00	—	76.6
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	43.7	0.00	43.7	4.37	0.00	—	153

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	81.3	0.00	81.3	8.12	0.00	—	284
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	462
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	264	0.00	264	26.4	0.00	—	924
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	81.3	0.00	81.3	8.12	0.00	—	284
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	132	0.00	132	13.2	0.00	—	462
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	264	0.00	264	26.4	0.00	—	924
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.34	0.00	—	47.1
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	8.31	0.00	8.31	0.83	0.00	—	29.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	21.9	0.00	21.9	2.19	0.00	—	76.6
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	43.7	0.00	43.7	4.37	0.00	—	153

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.55	1.55
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.14	6.14
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.65	8.65
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.55	1.55
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.14	6.14
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.65	8.65
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	0.26

Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.02	1.02
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.43	1.43

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.55	1.55
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.14	6.14
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.65	8.65
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.55	1.55
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.14	6.14
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.65	8.65
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	0.26
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.02	1.02
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.43	1.43

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	6,491	6,491	6,491	2,369,394	38,457	38,457	38,457	14,036,919

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	6,491	6,491	6,491	2,369,394	38,457	38,457	38,457	14,036,919

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	184
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	113
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	396
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	184
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—

Wood Fireplaces	0
Gas Fireplaces	113
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	396
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
2445795	815,265	0.00	0.00	15,682

5.10.3. Landscape Equipment

Season	Unit	Value

Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	1,052,469	77.5	0.0000	0.0000	4,736,869
Apartments Low Rise	560,053	77.5	0.0000	0.0000	1,915,091
Single Family Housing	3,751,312	77.5	0.0000	0.0000	12,799,611
Junior High School	0.00	77.5	0.0000	0.0000	0.00
Elementary School	0.00	77.5	0.0000	0.0000	0.00
Strip Mall	0.00	77.5	0.0000	0.0000	0.00
General Office Building	0.00	77.5	0.0000	0.0000	0.00
City Park	0.00	77.5	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	77.5	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	0.00	77.5	0.0000	0.0000	4,736,869

Apartments Low Rise	0.00	77.5	0.0000	0.0000	1,915,091
Single Family Housing	934,681	77.5	0.0000	0.0000	12,799,611
Junior High School	0.00	77.5	0.0000	0.0000	0.00
Elementary School	0.00	77.5	0.0000	0.0000	0.00
Strip Mall	0.00	77.5	0.0000	0.0000	0.00
General Office Building	0.00	77.5	0.0000	0.0000	0.00
City Park	0.00	77.5	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	77.5	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	12,394,241	13,051,001
Apartments Low Rise	3,223,270	3,394,068
Single Family Housing	44,319,965	46,668,442
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	0.00	0.00
General Office Building	0.00	0.00
City Park	0.00	6,629,659
Other Asphalt Surfaces	0.00	7,290,600

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	12,394,241	13,051,001
Apartments Low Rise	3,223,270	3,394,068

Single Family Housing	44,319,965	46,668,442
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	0.00	0.00
General Office Building	0.00	0.00
City Park	0.00	6,629,659
Other Asphalt Surfaces	0.00	7,290,600

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	151	—
Apartments Low Rise	93.2	—
Single Family Housing	245	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	0.00	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	151	—
Apartments Low Rise	93.2	—
Single Family Housing	245	—

Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	0.00	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A

Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7

Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948

Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—

Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Energy Use	—
Operations: Water and Waste Water	Accounts for Policy 9.36 (20% reduction to indoor residential water use), Policy 9.37 (30% reduction to indoor non-residential water consumption) 13% increase in outdoor due to non-revenue demand. All per WSA.
Operations: Road Dust	Paved road dust percentage updated per discussions with team

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 04 _ Fully Mit
Operational Year	2030
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	255	Dwelling Unit	30.0	270,300	0.00	—	648	—

Apartments Low Rise	126	Dwelling Unit	6.00	133,560	0.00	—	320	—
Single Family Housing	550	Dwelling Unit	192	1,072,500	6,442,071	—	1,397	—
Junior High School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	0.00	1000sqft	0.00	0.00	0.00	—	—	—
General Office Building	0.00	1000sqft	0.00	0.00	0.00	—	—	—
City Park	7.00	Acre	7.00	0.00	7.00	7.00	—	—
Other Asphalt Surfaces	6.00	Acre	6.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances
Energy	E-10-B	Establish Onsite Renewable Energy Systems: Solar Power

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	41.9	83.1	39.4	237	0.49	1.96	31.6	33.6	1.93	8.05	9.98	459	63,766	64,226	49.1	2.12	100	66,183
Mit.	41.9	83.1	39.4	237	0.49	1.96	31.6	33.6	1.93	8.05	9.98	459	62,658	63,117	49.1	2.12	100	65,075

% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	2%	2%	—	—	—	2%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	33.9	75.2	41.9	177	0.46	1.93	31.6	33.6	1.91	8.05	9.96	459	61,032	61,491	49.4	2.28	12.9	63,420
Mit.	33.9	75.2	41.9	177	0.46	1.93	31.6	33.6	1.91	8.05	9.96	459	59,924	60,383	49.4	2.28	12.9	62,312
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	2%	2%	—	—	—	2%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	35.1	77.0	30.4	193	0.40	1.07	31.4	32.5	1.05	8.00	9.05	459	47,921	48,381	49.0	2.20	49.2	50,309
Mit.	35.1	77.0	30.4	193	0.40	1.07	31.4	32.5	1.05	8.00	9.05	459	46,813	47,273	49.0	2.20	49.2	49,201
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	2%	2%	—	—	—	2%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.41	14.0	5.55	35.3	0.07	0.20	5.74	5.93	0.19	1.46	1.65	76.1	7,934	8,010	8.11	0.36	8.15	8,329
Mit.	6.41	14.0	5.55	35.3	0.07	0.20	5.74	5.93	0.19	1.46	1.65	76.1	7,750	7,827	8.11	0.36	8.15	8,146
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	2%	2%	—	—	—	2%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	34.7	33.0	19.0	175	0.36	0.32	31.6	32.0	0.30	8.05	8.35	—	36,917	36,917	1.76	1.72	89.5	37,564
Area	6.45	49.7	14.4	58.9	0.09	1.15	—	1.15	1.14	—	1.14	0.00	17,784	17,784	0.34	0.03	—	17,803

Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	8,987	8,987	0.68	0.01	—	9,008
Water	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	41.9	83.1	39.4	237	0.49	1.96	31.6	33.6	1.93	8.05	9.98	459	63,766	64,226	49.1	2.12	100	66,183
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	31.6	29.7	22.0	169	0.34	0.32	31.6	32.0	0.30	8.05	8.35	—	34,324	34,324	2.10	1.89	2.32	34,943
Area	1.63	45.1	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	8,987	8,987	0.68	0.01	—	9,008
Water	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	33.9	75.2	41.9	177	0.46	1.93	31.6	33.6	1.91	8.05	9.96	459	61,032	61,491	49.4	2.28	12.9	63,420
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	31.7	29.9	21.0	163	0.34	0.32	31.4	31.8	0.30	8.00	8.30	—	34,823	34,823	1.96	1.83	38.6	35,455
Area	2.75	46.7	3.37	27.5	0.02	0.26	—	0.26	0.26	—	0.26	0.00	4,033	4,033	0.08	0.01	—	4,038
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	8,987	8,987	0.68	0.01	—	9,008
Water	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	35.1	77.0	30.4	193	0.40	1.07	31.4	32.5	1.05	8.00	9.05	459	47,921	48,381	49.0	2.20	49.2	50,309
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.78	5.45	3.83	29.8	0.06	0.06	5.74	5.80	0.06	1.46	1.51	—	5,765	5,765	0.32	0.30	6.40	5,870
Area	0.50	8.53	0.61	5.01	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	668	668	0.01	< 0.005	—	668
Energy	0.13	0.06	1.10	0.47	0.01	0.09	—	0.09	0.09	—	0.09	—	1,488	1,488	0.11	< 0.005	—	1,491
Water	—	—	—	—	—	—	—	—	—	—	—	23.5	12.9	36.4	2.41	0.06	—	114

Waste	—	—	—	—	—	—	—	—	—	—	—	52.5	0.00	52.5	5.25	0.00	—	184
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.75	1.75
Total	6.41	14.0	5.55	35.3	0.07	0.20	5.74	5.93	0.19	1.46	1.65	76.1	7,934	8,010	8.11	0.36	8.15	8,329

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	34.7	33.0	19.0	175	0.36	0.32	31.6	32.0	0.30	8.05	8.35	—	36,917	36,917	1.76	1.72	89.5	37,564
Area	6.45	49.7	14.4	58.9	0.09	1.15	—	1.15	1.14	—	1.14	0.00	17,784	17,784	0.34	0.03	—	17,803
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,879	7,879	0.68	0.01	—	7,900
Water	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	41.9	83.1	39.4	237	0.49	1.96	31.6	33.6	1.93	8.05	9.98	459	62,658	63,117	49.1	2.12	100	65,075
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	31.6	29.7	22.0	169	0.34	0.32	31.6	32.0	0.30	8.05	8.35	—	34,324	34,324	2.10	1.89	2.32	34,943
Area	1.63	45.1	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,879	7,879	0.68	0.01	—	7,900
Water	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	33.9	75.2	41.9	177	0.46	1.93	31.6	33.6	1.91	8.05	9.96	459	59,924	60,383	49.4	2.28	12.9	62,312
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	31.7	29.9	21.0	163	0.34	0.32	31.4	31.8	0.30	8.00	8.30	—	34,823	34,823	1.96	1.83	38.6	35,455
Area	2.75	46.7	3.37	27.5	0.02	0.26	—	0.26	0.26	—	0.26	0.00	4,033	4,033	0.08	0.01	—	4,038
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,879	7,879	0.68	0.01	—	7,900
Water	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	35.1	77.0	30.4	193	0.40	1.07	31.4	32.5	1.05	8.00	9.05	459	46,813	47,273	49.0	2.20	49.2	49,201
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.78	5.45	3.83	29.8	0.06	0.06	5.74	5.80	0.06	1.46	1.51	—	5,765	5,765	0.32	0.30	6.40	5,870
Area	0.50	8.53	0.61	5.01	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	668	668	0.01	< 0.005	—	668
Energy	0.13	0.06	1.10	0.47	0.01	0.09	—	0.09	0.09	—	0.09	—	1,304	1,304	0.11	< 0.005	—	1,308
Water	—	—	—	—	—	—	—	—	—	—	—	23.5	12.9	36.4	2.41	0.06	—	114
Waste	—	—	—	—	—	—	—	—	—	—	—	52.5	0.00	52.5	5.25	0.00	—	184
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.75	1.75
Total	6.41	14.0	5.55	35.3	0.07	0.20	5.74	5.93	0.19	1.46	1.65	76.1	7,750	7,827	8.11	0.36	8.15	8,146

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	270	270	0.00	0.00	—	270
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	115	115	0.00	0.00	—	115
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	963	963	0.00	0.00	—	963
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,348	1,348	0.00	0.00	—	1,348
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	270	270	0.00	0.00	—	270
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	115	115	0.00	0.00	—	115
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	963	963	0.00	0.00	—	963
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,348	1,348	0.00	0.00	—	1,348
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	44.7	44.7	0.00	0.00	—	44.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	19.0	19.0	0.00	0.00	—	19.0
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	159	159	0.00	0.00	—	159

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	223	223	0.00	0.00	—	223

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	240	240	0.00	0.00	—	240

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	240	240	0.00	0.00	—	240
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	240	240	0.00	0.00	—	240
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	240	240	0.00	0.00	—	240
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	39.7	39.7	0.00	0.00	—	39.7
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	39.7	39.7	0.00	0.00	—	39.7

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.17	0.09	1.49	0.64	0.01	0.12	—	0.12	0.12	—	0.12	—	1,898	1,898	0.17	< 0.005	—	1,903
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,128	5,128	0.45	0.01	—	5,142
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,639	7,639	0.68	0.01	—	7,660
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/T	0.17	0.09	1.49	0.64	0.01	0.12	—	0.12	0.12	—	0.12	—	1,898	1,898	0.17	< 0.005	—	1,903
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,128	5,128	0.45	0.01	—	5,142
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,639	7,639	0.68	0.01	—	7,660
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.03	0.02	0.27	0.12	< 0.005	0.02	—	0.02	0.02	—	0.02	—	314	314	0.03	< 0.005	—	315
Apartments Low Rise	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	102
Single Family Housing	0.09	0.04	0.74	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	849	849	0.08	< 0.005	—	851
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Element School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.13	0.06	1.10	0.47	0.01	0.09	—	0.09	0.09	—	0.09	—	1,265	1,265	0.11	< 0.005	—	1,268

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.17	0.09	1.49	0.64	0.01	0.12	—	0.12	0.12	—	0.12	—	1,898	1,898	0.17	< 0.005	—	1,903
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,128	5,128	0.45	0.01	—	5,142
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,639	7,639	0.68	0.01	—	7,660
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.17	0.09	1.49	0.64	0.01	0.12	—	0.12	0.12	—	0.12	—	1,898	1,898	0.17	< 0.005	—	1,903
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,128	5,128	0.45	0.01	—	5,142
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,639	7,639	0.68	0.01	—	7,660
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.03	0.02	0.27	0.12	< 0.005	0.02	—	0.02	0.02	—	0.02	—	314	314	0.03	< 0.005	—	315
Apartments Low Rise	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	102
Single Family Housing	0.09	0.04	0.74	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	849	849	0.08	< 0.005	—	851
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.13	0.06	1.10	0.47	0.01	0.09	—	0.09	0.09	—	0.09	—	1,265	1,265	0.11	< 0.005	—	1,268

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.63	0.81	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Consumer Products	—	31.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	12.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	4.83	4.57	0.49	53.0	< 0.005	0.02	—	0.02	0.02	—	0.02	—	141	141	0.01	< 0.005	—	142
Total	6.45	49.7	14.4	58.9	0.09	1.15	—	1.15	1.14	—	1.14	0.00	17,784	17,784	0.34	0.03	—	17,803
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.63	0.81	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Consumer Products	—	31.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	12.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.63	45.1	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.07	0.03	0.57	0.24	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	656	656	0.01	< 0.005	—	657
Consumer Products	—	5.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	0.43	0.41	0.04	4.77	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.5	11.5	< 0.005	< 0.005	—	11.6
Total	0.50	8.53	0.61	5.01	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	668	668	0.01	< 0.005	—	668

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.63	0.81	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Consumer Products	—	31.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	12.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	4.83	4.57	0.49	53.0	< 0.005	0.02	—	0.02	0.02	—	0.02	—	141	141	0.01	< 0.005	—	142
Total	6.45	49.7	14.4	58.9	0.09	1.15	—	1.15	1.14	—	1.14	0.00	17,784	17,784	0.34	0.03	—	17,803
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.63	0.81	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Consumer Products	—	31.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	12.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.63	45.1	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.07	0.03	0.57	0.24	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	656	656	0.01	< 0.005	—	657
Consumer Products	—	5.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.43	0.41	0.04	4.77	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.5	11.5	< 0.005	< 0.005	—	11.6
Total	0.50	8.53	0.61	5.01	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	668	668	0.01	< 0.005	—	668

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	29.7	15.4	45.1	3.04	0.07	—	143
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.18	3.20	9.37	0.63	0.02	—	29.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	106	54.9	161	10.9	0.26	—	510

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.20	2.20	0.00	0.00	—	2.20
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	2.41	2.41	0.00	0.00	—	2.41
Total	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	29.7	15.4	45.1	3.04	0.07	—	143
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.18	3.20	9.37	0.63	0.02	—	29.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	106	54.9	161	10.9	0.26	—	510
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.20	2.20	0.00	0.00	—	2.20
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	2.41	2.41	0.00	0.00	—	2.41
Total	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	4.92	2.54	7.46	0.50	0.01	—	23.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.02	0.53	1.55	0.10	< 0.005	—	4.92
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	17.6	9.10	26.7	1.80	0.04	—	84.5
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.36	0.36	0.00	0.00	—	0.36
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.40	0.40	0.00	0.00	—	0.40
Total	—	—	—	—	—	—	—	—	—	—	—	23.5	12.9	36.4	2.41	0.06	—	114

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	29.7	15.4	45.1	3.04	0.07	—	143
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.18	3.20	9.37	0.63	0.02	—	29.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	106	54.9	161	10.9	0.26	—	510
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.20	2.20	0.00	0.00	—	2.20
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	2.41	2.41	0.00	0.00	—	2.41
Total	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/T	—	—	—	—	—	—	—	—	—	—	—	29.7	15.4	45.1	3.04	0.07	—	143
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.18	3.20	9.37	0.63	0.02	—	29.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	106	54.9	161	10.9	0.26	—	510
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.20	2.20	0.00	0.00	—	2.20
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	2.41	2.41	0.00	0.00	—	2.41
Total	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	4.92	2.54	7.46	0.50	0.01	—	23.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.02	0.53	1.55	0.10	< 0.005	—	4.92
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	17.6	9.10	26.7	1.80	0.04	—	84.5
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Element School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.36	0.36	0.00	0.00	—	0.36
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.40	0.40	0.00	0.00	—	0.40
Total	—	—	—	—	—	—	—	—	—	—	—	23.5	12.9	36.4	2.41	0.06	—	114

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	102	0.00	102	10.2	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	165	0.00	165	16.5	0.00	—	578
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Element School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	102	0.00	102	10.2	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	165	0.00	165	16.5	0.00	—	578
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	16.8	0.00	16.8	1.68	0.00	—	58.9
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	8.31	0.00	8.31	0.83	0.00	—	29.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	27.3	0.00	27.3	2.73	0.00	—	95.7
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	52.5	0.00	52.5	5.25	0.00	—	184

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	102	0.00	102	10.2	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	165	0.00	165	16.5	0.00	—	578
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	102	0.00	102	10.2	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	165	0.00	165	16.5	0.00	—	578
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	16.8	0.00	16.8	1.68	0.00	—	58.9
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	8.31	0.00	8.31	0.83	0.00	—	29.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	27.3	0.00	27.3	2.73	0.00	—	95.7
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	52.5	0.00	52.5	5.25	0.00	—	184

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.94	1.94
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.68	7.68
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.94	1.94
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.68	7.68
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.32	0.32

Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.27	1.27
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.75	1.75

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.94	1.94
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.68	7.68
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.94	1.94
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.68	7.68
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.32	0.32
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.27	1.27
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.75	1.75

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	7,885	7,885	7,885	2,878,158	44,457	44,457	44,457	16,226,626

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	7,885	7,885	7,885	2,878,158	44,457	44,457	44,457	16,226,626

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	230
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	113
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	495
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	230
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—

Wood Fireplaces	0
Gas Fireplaces	113
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	495
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
2989629	996,543	0.00	0.00	15,682

5.10.3. Landscape Equipment

Season	Unit	Value

Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	1,315,586	75.0	0.0000	0.0000	5,921,086
Apartments Low Rise	560,053	75.0	0.0000	0.0000	1,915,091
Single Family Housing	4,689,140	75.0	0.0000	0.0000	15,999,514
Junior High School	0.00	75.0	0.0000	0.0000	0.00
Elementary School	0.00	75.0	0.0000	0.0000	0.00
Strip Mall	0.00	75.0	0.0000	0.0000	0.00
General Office Building	0.00	75.0	0.0000	0.0000	0.00
City Park	0.00	75.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	75.0	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	< 0.005	75.0	0.0000	0.0000	5,921,086

Apartments Low Rise	0.44	75.0	0.0000	0.0000	1,915,091
Single Family Housing	1,168,351	75.0	0.0000	0.0000	15,999,514
Junior High School	0.00	75.0	0.0000	0.0000	0.00
Elementary School	0.00	75.0	0.0000	0.0000	0.00
Strip Mall	0.00	75.0	0.0000	0.0000	0.00
General Office Building	0.00	75.0	0.0000	0.0000	0.00
City Park	0.00	75.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	75.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	15,492,802	16,313,752
Apartments Low Rise	3,223,270	3,394,068
Single Family Housing	55,399,957	58,335,552
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	0.00	0.00
General Office Building	0.00	0.00
City Park	0.00	6,629,659
Other Asphalt Surfaces	0.00	7,290,600

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	15,492,802	16,313,752
Apartments Low Rise	3,223,270	3,394,068

Single Family Housing	55,399,957	58,335,552
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	0.00	0.00
General Office Building	0.00	0.00
City Park	0.00	6,629,659
Other Asphalt Surfaces	0.00	7,290,600

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	189	—
Apartments Low Rise	93.2	—
Single Family Housing	306	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	0.00	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	189	—
Apartments Low Rise	93.2	—
Single Family Housing	306	—

Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	0.00	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A

Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7

Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948

Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—

Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team
Operations: Water and Waste Water	Accounts for Policy 9.36 (20% reduction to indoor residential water use), Policy 9.37 (30% reduction to indoor non-residential water consumption) 13% increase in outdoor due to non-revenue demand. All per WSA.

MV OP 04 _ Partial Mit Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 04 _ Partial Mit
Operational Year	2030
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	255	Dwelling Unit	30.0	270,300	0.00	—	648	—

Apartments Low Rise	126	Dwelling Unit	6.00	133,560	0.00	—	320	—
Single Family Housing	550	Dwelling Unit	192	1,072,500	6,442,071	—	1,397	—
Junior High School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	0.00	1000sqft	0.00	0.00	0.00	—	—	—
General Office Building	0.00	1000sqft	0.00	0.00	0.00	—	—	—
City Park	7.00	Acre	7.00	0.00	7.00	7.00	—	—
Other Asphalt Surfaces	6.00	Acre	6.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	42.2	83.3	39.9	242	0.51	1.97	32.9	34.8	1.94	8.36	10.3	459	65,161	65,620	49.1	2.17	104	67,596
Mit.	42.2	83.3	39.9	242	0.51	1.97	32.9	34.8	1.94	8.36	10.3	459	65,160	65,619	49.1	2.17	104	67,596
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	34.2	75.4	42.5	181	0.48	1.94	32.9	34.8	1.92	8.36	10.3	459	62,324	62,783	49.4	2.34	13.0	64,728
Mit.	34.2	75.4	42.5	181	0.48	1.94	32.9	34.8	1.92	8.36	10.3	459	62,323	62,782	49.4	2.34	13.0	64,727
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	35.4	77.2	31.0	198	0.41	1.08	32.7	33.7	1.06	8.31	9.37	459	49,233	49,693	49.0	2.25	50.7	51,639
Mit.	35.4	77.2	31.0	198	0.41	1.08	32.7	33.7	1.06	8.31	9.37	459	49,232	49,692	49.0	2.25	50.7	51,638
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.46	14.1	5.66	36.1	0.08	0.20	5.96	6.16	0.19	1.52	1.71	76.1	8,151	8,227	8.12	0.37	8.40	8,549
Mit.	6.46	14.1	5.66	36.1	0.08	0.20	5.96	6.16	0.19	1.52	1.71	76.1	8,151	8,227	8.12	0.37	8.40	8,549
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	35.0	33.3	19.5	180	0.38	0.33	32.9	33.2	0.31	8.36	8.68	—	38,312	38,312	1.79	1.77	93.0	38,977
Area	6.45	49.7	14.4	58.9	0.09	1.15	—	1.15	1.14	—	1.14	0.00	17,784	17,784	0.34	0.03	—	17,803
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	8,987	8,987	0.68	0.01	—	9,008
Water	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687

Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	42.2	83.3	39.9	242	0.51	1.97	32.9	34.8	1.94	8.36	10.3	459	65,161	65,620	49.1	2.17	104	67,596
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	31.8	29.9	22.6	173	0.35	0.33	32.9	33.2	0.31	8.36	8.68	—	35,616	35,616	2.13	1.94	2.41	36,251
Area	1.63	45.1	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	8,987	8,987	0.68	0.01	—	9,008
Water	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	34.2	75.4	42.5	181	0.48	1.94	32.9	34.8	1.92	8.36	10.3	459	62,324	62,783	49.4	2.34	13.0	64,728
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	31.9	30.1	21.6	168	0.36	0.33	32.7	33.0	0.31	8.31	8.62	—	36,135	36,135	1.99	1.88	40.2	36,785
Area	2.75	46.7	3.37	27.5	0.02	0.26	—	0.26	0.26	—	0.26	0.00	4,033	4,033	0.08	0.01	—	4,038
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	8,987	8,987	0.68	0.01	—	9,008
Water	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	35.4	77.2	31.0	198	0.41	1.08	32.7	33.7	1.06	8.31	9.37	459	49,233	49,693	49.0	2.25	50.7	51,639
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.83	5.49	3.94	30.6	0.06	0.06	5.96	6.02	0.06	1.52	1.57	—	5,983	5,983	0.33	0.31	6.65	6,090
Area	0.50	8.53	0.61	5.01	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	668	668	0.01	< 0.005	—	668
Energy	0.13	0.06	1.10	0.47	0.01	0.09	—	0.09	0.09	—	0.09	—	1,488	1,488	0.11	< 0.005	—	1,491
Water	—	—	—	—	—	—	—	—	—	—	—	23.5	12.9	36.4	2.41	0.06	—	114
Waste	—	—	—	—	—	—	—	—	—	—	—	52.5	0.00	52.5	5.25	0.00	—	184
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.75	1.75

Total	6.46	14.1	5.66	36.1	0.08	0.20	5.96	6.16	0.19	1.52	1.71	76.1	8,151	8,227	8.12	0.37	8.40	8,549

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	35.0	33.3	19.5	180	0.38	0.33	32.9	33.2	0.31	8.36	8.68	—	38,312	38,312	1.79	1.77	93.0	38,977
Area	6.45	49.7	14.4	58.9	0.09	1.15	—	1.15	1.14	—	1.14	0.00	17,784	17,784	0.34	0.03	—	17,803
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	8,986	8,986	0.68	0.01	—	9,007
Water	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	42.2	83.3	39.9	242	0.51	1.97	32.9	34.8	1.94	8.36	10.3	459	65,160	65,619	49.1	2.17	104	67,596
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	31.8	29.9	22.6	173	0.35	0.33	32.9	33.2	0.31	8.36	8.68	—	35,616	35,616	2.13	1.94	2.41	36,251
Area	1.63	45.1	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	8,986	8,986	0.68	0.01	—	9,007
Water	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	34.2	75.4	42.5	181	0.48	1.94	32.9	34.8	1.92	8.36	10.3	459	62,323	62,782	49.4	2.34	13.0	64,727
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	31.9	30.1	21.6	168	0.36	0.33	32.7	33.0	0.31	8.31	8.62	—	36,135	36,135	1.99	1.88	40.2	36,785
Area	2.75	46.7	3.37	27.5	0.02	0.26	—	0.26	0.26	—	0.26	0.00	4,033	4,033	0.08	0.01	—	4,038

Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	8,986	8,986	0.68	0.01	—	9,007
Water	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	35.4	77.2	31.0	198	0.41	1.08	32.7	33.7	1.06	8.31	9.37	459	49,232	49,692	49.0	2.25	50.7	51,638
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.83	5.49	3.94	30.6	0.06	0.06	5.96	6.02	0.06	1.52	1.57	—	5,983	5,983	0.33	0.31	6.65	6,090
Area	0.50	8.53	0.61	5.01	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	668	668	0.01	< 0.005	—	668
Energy	0.13	0.06	1.10	0.47	0.01	0.09	—	0.09	0.09	—	0.09	—	1,488	1,488	0.11	< 0.005	—	1,491
Water	—	—	—	—	—	—	—	—	—	—	—	23.5	12.9	36.4	2.41	0.06	—	114
Waste	—	—	—	—	—	—	—	—	—	—	—	52.5	0.00	52.5	5.25	0.00	—	184
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.75	1.75
Total	6.46	14.1	5.66	36.1	0.08	0.20	5.96	6.16	0.19	1.52	1.71	76.1	8,151	8,227	8.12	0.37	8.40	8,549

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	270	270	0.00	0.00	—	270
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	115	115	0.00	0.00	—	115
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	963	963	0.00	0.00	—	963
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,348	1,348	0.00	0.00	—	1,348
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	270	270	0.00	0.00	—	270
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	115	115	0.00	0.00	—	115

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	963	963	0.00	0.00	—	963
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,348	1,348	0.00	0.00	—	1,348
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	44.7	44.7	0.00	0.00	—	44.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	19.0	19.0	0.00	0.00	—	19.0
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	159	159	0.00	0.00	—	159
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	223	223	0.00	0.00	—	223

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	270	270	0.00	0.00	—	270
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	115	115	0.00	0.00	—	115
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	962	962	0.00	0.00	—	962
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,347	1,347	0.00	0.00	—	1,347
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	270	270	0.00	0.00	—	270
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	115	115	0.00	0.00	—	115
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	962	962	0.00	0.00	—	962
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,347	1,347	0.00	0.00	—	1,347

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	44.7	44.7	0.00	0.00	—	44.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	19.0	19.0	0.00	0.00	—	19.0
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	159	159	0.00	0.00	—	159
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	223	223	0.00	0.00	—	223

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	0.17	0.09	1.49	0.64	0.01	0.12	—	0.12	0.12	—	0.12	—	1,898	1,898	0.17	< 0.005	—	1,903
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,128	5,128	0.45	0.01	—	5,142
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,639	7,639	0.68	0.01	—	7,660
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.17	0.09	1.49	0.64	0.01	0.12	—	0.12	0.12	—	0.12	—	1,898	1,898	0.17	< 0.005	—	1,903
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,128	5,128	0.45	0.01	—	5,142

Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,639	7,639	0.68	0.01	—	7,660
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.03	0.02	0.27	0.12	< 0.005	0.02	—	0.02	0.02	—	0.02	—	314	314	0.03	< 0.005	—	315
Apartments Low Rise	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	102
Single Family Housing	0.09	0.04	0.74	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	849	849	0.08	< 0.005	—	851
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.13	0.06	1.10	0.47	0.01	0.09	—	0.09	0.09	—	0.09	—	1,265	1,265	0.11	< 0.005	—	1,268

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.17	0.09	1.49	0.64	0.01	0.12	—	0.12	0.12	—	0.12	—	1,898	1,898	0.17	< 0.005	—	1,903
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,128	5,128	0.45	0.01	—	5,142
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,639	7,639	0.68	0.01	—	7,660
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.17	0.09	1.49	0.64	0.01	0.12	—	0.12	0.12	—	0.12	—	1,898	1,898	0.17	< 0.005	—	1,903
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,128	5,128	0.45	0.01	—	5,142
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,639	7,639	0.68	0.01	—	7,660
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.03	0.02	0.27	0.12	< 0.005	0.02	—	0.02	0.02	—	0.02	—	314	314	0.03	< 0.005	—	315

Apartment Low Rise	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	102
Single Family Housing	0.09	0.04	0.74	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	849	849	0.08	< 0.005	—	851
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.13	0.06	1.10	0.47	0.01	0.09	—	0.09	0.09	—	0.09	—	1,265	1,265	0.11	< 0.005	—	1,268

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.63	0.81	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Consumer Products	—	31.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	12.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	4.83	4.57	0.49	53.0	< 0.005	0.02	—	0.02	0.02	—	0.02	—	141	141	0.01	< 0.005	—	142
Total	6.45	49.7	14.4	58.9	0.09	1.15	—	1.15	1.14	—	1.14	0.00	17,784	17,784	0.34	0.03	—	17,803
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.63	0.81	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Consumer Products	—	31.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	12.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.63	45.1	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.07	0.03	0.57	0.24	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	656	656	0.01	< 0.005	—	657
Consumer Products	—	5.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.43	0.41	0.04	4.77	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.5	11.5	< 0.005	< 0.005	—	11.6
Total	0.50	8.53	0.61	5.01	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	668	668	0.01	< 0.005	—	668

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.63	0.81	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Consumer Products	—	31.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	12.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	4.83	4.57	0.49	53.0	< 0.005	0.02	—	0.02	0.02	—	0.02	—	141	141	0.01	< 0.005	—	142
Total	6.45	49.7	14.4	58.9	0.09	1.15	—	1.15	1.14	—	1.14	0.00	17,784	17,784	0.34	0.03	—	17,803
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.63	0.81	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Consumer Products	—	31.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	12.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.63	45.1	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.07	0.03	0.57	0.24	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	656	656	0.01	< 0.005	—	657
Consumer Products	—	5.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	2.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.43	0.41	0.04	4.77	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.5	11.5	< 0.005	< 0.005	—	11.6
Total	0.50	8.53	0.61	5.01	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	668	668	0.01	< 0.005	—	668

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	29.7	15.4	45.1	3.04	0.07	—	143
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.18	3.20	9.37	0.63	0.02	—	29.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	106	54.9	161	10.9	0.26	—	510
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.20	2.20	0.00	0.00	—	2.20
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	2.41	2.41	0.00	0.00	—	2.41
Total	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	29.7	15.4	45.1	3.04	0.07	—	143
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.18	3.20	9.37	0.63	0.02	—	29.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	106	54.9	161	10.9	0.26	—	510
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.20	2.20	0.00	0.00	—	2.20
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	2.41	2.41	0.00	0.00	—	2.41
Total	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	4.92	2.54	7.46	0.50	0.01	—	23.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.02	0.53	1.55	0.10	< 0.005	—	4.92
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	17.6	9.10	26.7	1.80	0.04	—	84.5
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.36	0.36	0.00	0.00	—	0.36
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.40	0.40	0.00	0.00	—	0.40
Total	—	—	—	—	—	—	—	—	—	—	—	23.5	12.9	36.4	2.41	0.06	—	114

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	29.7	15.4	45.1	3.04	0.07	—	143
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.18	3.20	9.37	0.63	0.02	—	29.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	106	54.9	161	10.9	0.26	—	510
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.20	2.20	0.00	0.00	—	2.20
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	2.41	2.41	0.00	0.00	—	2.41
Total	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	29.7	15.4	45.1	3.04	0.07	—	143
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.18	3.20	9.37	0.63	0.02	—	29.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	106	54.9	161	10.9	0.26	—	510

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.20	2.20	0.00	0.00	—	2.20
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	2.41	2.41	0.00	0.00	—	2.41
Total	—	—	—	—	—	—	—	—	—	—	—	142	78.1	220	14.6	0.35	—	687
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	4.92	2.54	7.46	0.50	0.01	—	23.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.02	0.53	1.55	0.10	< 0.005	—	4.92
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	17.6	9.10	26.7	1.80	0.04	—	84.5
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.36	0.36	0.00	0.00	—	0.36
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.40	0.40	0.00	0.00	—	0.40
Total	—	—	—	—	—	—	—	—	—	—	—	23.5	12.9	36.4	2.41	0.06	—	114

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	102	0.00	102	10.2	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	165	0.00	165	16.5	0.00	—	578
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	102	0.00	102	10.2	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	165	0.00	165	16.5	0.00	—	578
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	16.8	0.00	16.8	1.68	0.00	—	58.9
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	8.31	0.00	8.31	0.83	0.00	—	29.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	27.3	0.00	27.3	2.73	0.00	—	95.7
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	52.5	0.00	52.5	5.25	0.00	—	184

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	102	0.00	102	10.2	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	165	0.00	165	16.5	0.00	—	578
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	102	0.00	102	10.2	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	165	0.00	165	16.5	0.00	—	578

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	16.8	0.00	16.8	1.68	0.00	—	58.9
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	8.31	0.00	8.31	0.83	0.00	—	29.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	27.3	0.00	27.3	2.73	0.00	—	95.7
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	52.5	0.00	52.5	5.25	0.00	—	184

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.94	1.94
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.68	7.68
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.94	1.94
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.68	7.68
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.32	0.32
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.27	1.27
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.75	1.75

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.94	1.94
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.68	7.68

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.94	1.94
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.68	7.68
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.32	0.32
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.27	1.27
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.75	1.75

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	7,885	7,885	7,885	2,878,158	46,195	46,195	46,195	16,861,288

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	7,885	7,885	7,885	2,878,158	46,195	46,195	46,195	16,861,288

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	230
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	113
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	495

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	230
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	113
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	495
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
2989629	996,543	0.00	0.00	15,682

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	1,315,586	75.0	0.0000	0.0000	5,921,086
Apartments Low Rise	560,053	75.0	0.0000	0.0000	1,915,091
Single Family Housing	4,689,140	75.0	0.0000	0.0000	15,999,514
Junior High School	0.00	75.0	0.0000	0.0000	0.00
Elementary School	0.00	75.0	0.0000	0.0000	0.00
Strip Mall	0.00	75.0	0.0000	0.0000	0.00
General Office Building	0.00	75.0	0.0000	0.0000	0.00
City Park	0.00	75.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	75.0	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	1,314,330	75.0	0.0000	0.0000	5,921,086
Apartments Low Rise	559,742	75.0	0.0000	0.0000	1,915,091
Single Family Housing	4,685,974	75.0	0.0000	0.0000	15,999,514
Junior High School	0.00	75.0	0.0000	0.0000	0.00
Elementary School	0.00	75.0	0.0000	0.0000	0.00
Strip Mall	0.00	75.0	0.0000	0.0000	0.00
General Office Building	0.00	75.0	0.0000	0.0000	0.00

City Park	0.00	75.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	75.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	15,492,802	16,313,752
Apartments Low Rise	3,223,270	3,394,068
Single Family Housing	55,399,957	58,335,552
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	0.00	0.00
General Office Building	0.00	0.00
City Park	0.00	6,629,659
Other Asphalt Surfaces	0.00	7,290,600

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	15,492,802	16,313,752
Apartments Low Rise	3,223,270	3,394,068
Single Family Housing	55,399,957	58,335,552
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	0.00	0.00
General Office Building	0.00	0.00
City Park	0.00	6,629,659

Other Asphalt Surfaces	0.00	7,290,600

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	189	—
Apartments Low Rise	93.2	—
Single Family Housing	306	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	0.00	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	189	—
Apartments Low Rise	93.2	—
Single Family Housing	306	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	0.00	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9

AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—

Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8

Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team
Operations: Water and Waste Water	Accounts for Policy 9.36 (20% reduction to indoor residential water use), Policy 9.37 (30% reduction to indoor non-residential water consumption) 13% increase in outdoor due to non-revenue demand. All per WSA.

MV OP 04 _ Unmitigated Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 04 _ Unmitigated
Operational Year	2030
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	255	Dwelling Unit	30.0	270,300	0.00	—	648	—

Apartments Low Rise	126	Dwelling Unit	6.00	133,560	0.00	—	320	—
Single Family Housing	550	Dwelling Unit	192	1,072,500	6,442,071	—	1,397	—
Junior High School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	0.00	1000sqft	0.00	0.00	0.00	—	—	—
General Office Building	0.00	1000sqft	0.00	0.00	0.00	—	—	—
City Park	7.00	Acre	7.00	0.00	7.00	7.00	—	—
Other Asphalt Surfaces	6.00	Acre	6.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1,489	1,507	53.9	1,995	3.60	243	32.9	276	242	8.36	250	26,230	58,269	84,499	63.9	3.78	104	87,327
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1,481	1,499	56.5	1,934	3.57	243	32.9	276	242	8.36	250	26,230	55,432	81,662	64.2	3.95	13.0	84,458

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	360	397	34.1	592	1.11	55.3	32.7	87.9	55.0	8.31	63.3	6,183	47,661	53,844	45.6	2.45	50.7	55,764
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	65.8	72.4	6.23	108	0.20	10.1	5.96	16.0	10.0	1.52	11.6	1,024	7,891	8,914	7.55	0.41	8.40	9,232

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	35.0	33.3	19.5	180	0.38	0.33	32.9	33.2	0.31	8.36	8.68	—	38,312	38,312	1.79	1.77	93.0	38,977
Area	1,453	1,473	28.3	1,812	3.19	242	—	242	241	—	241	25,855	10,923	36,778	23.9	1.86	—	37,928
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	8,987	8,987	0.68	0.01	—	9,008
Water	—	—	—	—	—	—	—	—	—	—	—	57.1	47.1	104	5.85	0.14	—	292
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	1,489	1,507	53.9	1,995	3.60	243	32.9	276	242	8.36	250	26,230	58,269	84,499	63.9	3.78	104	87,327
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	31.8	29.9	22.6	173	0.35	0.33	32.9	33.2	0.31	8.36	8.68	—	35,616	35,616	2.13	1.94	2.41	36,251
Area	1,448	1,469	27.8	1,759	3.19	242	—	242	241	—	241	25,855	10,782	36,637	23.9	1.86	—	37,786
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	8,987	8,987	0.68	0.01	—	9,008
Water	—	—	—	—	—	—	—	—	—	—	—	57.1	47.1	104	5.85	0.14	—	292
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6

Total	1,481	1,499	56.5	1,934	3.57	243	32.9	276	242	8.36	250	26,230	55,432	81,662	64.2	3.95	13.0	84,458
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	31.9	30.1	21.6	168	0.36	0.33	32.7	33.0	0.31	8.31	8.62	—	36,135	36,135	1.99	1.88	40.2	36,785
Area	328	367	6.49	421	0.72	54.4	—	54.4	54.2	—	54.2	5,809	2,492	8,300	5.36	0.42	—	8,559
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	8,987	8,987	0.68	0.01	—	9,008
Water	—	—	—	—	—	—	—	—	—	—	—	57.1	47.1	104	5.85	0.14	—	292
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	360	397	34.1	592	1.11	55.3	32.7	87.9	55.0	8.31	63.3	6,183	47,661	53,844	45.6	2.45	50.7	55,764
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.83	5.49	3.94	30.6	0.06	0.06	5.96	6.02	0.06	1.52	1.57	—	5,983	5,983	0.33	0.31	6.65	6,090
Area	59.8	66.9	1.19	76.9	0.13	9.94	—	9.94	9.89	—	9.89	962	413	1,374	0.89	0.07	—	1,417
Energy	0.13	0.06	1.10	0.47	0.01	0.09	—	0.09	0.09	—	0.09	—	1,488	1,488	0.11	< 0.005	—	1,491
Water	—	—	—	—	—	—	—	—	—	—	—	9.45	7.80	17.3	0.97	0.02	—	48.3
Waste	—	—	—	—	—	—	—	—	—	—	—	52.5	0.00	52.5	5.25	0.00	—	184
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.75	1.75
Total	65.8	72.4	6.23	108	0.20	10.1	5.96	16.0	10.0	1.52	11.6	1,024	7,891	8,914	7.55	0.41	8.40	9,232

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	270	270	0.00	0.00	—	270
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	115	115	0.00	0.00	—	115
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	963	963	0.00	0.00	—	963
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,348	1,348	0.00	0.00	—	1,348
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	270	270	0.00	0.00	—	270
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	115	115	0.00	0.00	—	115
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	963	963	0.00	0.00	—	963
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,348	1,348	0.00	0.00	—	1,348
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	44.7	44.7	0.00	0.00	—	44.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	19.0	19.0	0.00	0.00	—	19.0
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	159	159	0.00	0.00	—	159

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	223	223	0.00	0.00	—	223

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.17	0.09	1.49	0.64	0.01	0.12	—	0.12	0.12	—	0.12	—	1,898	1,898	0.17	< 0.005	—	1,903
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,128	5,128	0.45	0.01	—	5,142

Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,639	7,639	0.68	0.01	—	7,660
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.17	0.09	1.49	0.64	0.01	0.12	—	0.12	0.12	—	0.12	—	1,898	1,898	0.17	< 0.005	—	1,903
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,128	5,128	0.45	0.01	—	5,142
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,639	7,639	0.68	0.01	—	7,660
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.03	0.02	0.27	0.12	< 0.005	0.02	—	0.02	0.02	—	0.02	—	314	314	0.03	< 0.005	—	315
Apartments Low Rise	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	102
Single Family Housing	0.09	0.04	0.74	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	849	849	0.08	< 0.005	—	851
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.13	0.06	1.10	0.47	0.01	0.09	—	0.09	0.09	—	0.09	—	1,265	1,265	0.11	< 0.005	—	1,268

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1,448	1,424	27.8	1,759	3.19	242	—	242	241	—	241	25,855	10,782	36,637	23.9	1.86	—	37,786
Consumer Products	—	31.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	12.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	4.83	4.57	0.49	53.0	< 0.005	0.02	—	0.02	0.02	—	0.02	—	141	141	0.01	< 0.005	—	142
Total	1,453	1,473	28.3	1,812	3.19	242	—	242	241	—	241	25,855	10,923	36,778	23.9	1.86	—	37,928
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1,448	1,424	27.8	1,759	3.19	242	—	242	241	—	241	25,855	10,782	36,637	23.9	1.86	—	37,786
Consumer Products	—	31.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	12.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1,448	1,469	27.8	1,759	3.19	242	—	242	241	—	241	25,855	10,782	36,637	23.9	1.86	—	37,786
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	59.4	58.4	1.14	72.1	0.13	9.93	—	9.93	9.89	—	9.89	962	401	1,363	0.89	0.07	—	1,405

Consum Products	—	5.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.43	0.41	0.04	4.77	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.5	11.5	< 0.005	< 0.005	—	11.6
Total	59.8	66.9	1.19	76.9	0.13	9.94	—	9.94	9.89	—	9.89	962	413	1,374	0.89	0.07	—	1,417

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	15.6	5.25	20.9	1.60	0.04	—	72.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7.72	2.59	10.3	0.79	0.02	—	35.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	33.7	39.3	73.0	3.46	0.08	—	184
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	57.1	47.1	104	5.85	0.14	—	292
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	15.6	5.25	20.9	1.60	0.04	—	72.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7.72	2.59	10.3	0.79	0.02	—	35.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	33.7	39.3	73.0	3.46	0.08	—	184
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	57.1	47.1	104	5.85	0.14	—	292
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	2.59	0.87	3.46	0.27	0.01	—	12.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.28	0.43	1.71	0.13	< 0.005	—	5.91
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	5.58	6.51	12.1	0.57	0.01	—	30.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	9.45	7.80	17.3	0.97	0.02	—	48.3

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	102	0.00	102	10.2	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	165	0.00	165	16.5	0.00	—	578
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	102	0.00	102	10.2	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	165	0.00	165	16.5	0.00	—	578
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	16.8	0.00	16.8	1.68	0.00	—	58.9
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	8.31	0.00	8.31	0.83	0.00	—	29.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	27.3	0.00	27.3	2.73	0.00	—	95.7
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	52.5	0.00	52.5	5.25	0.00	—	184

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.94	1.94
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.68	7.68
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.94	1.94
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.68	7.68
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.32	0.32

Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.27	1.27
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.75	1.75

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	7,885	7,885	7,885	2,878,158	46,195	46,195	46,195	16,861,288

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	89
Gas Fireplaces	140
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	26
Conventional Wood Stoves	0
Catalytic Wood Stoves	13
Non-Catalytic Wood Stoves	13
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	44
Gas Fireplaces	69
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	13
Conventional Wood Stoves	0
Catalytic Wood Stoves	6
Non-Catalytic Wood Stoves	6
Pellet Wood Stoves	0
Single Family Housing	—

Wood Fireplaces	193
Gas Fireplaces	303
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	55
Conventional Wood Stoves	0
Catalytic Wood Stoves	28
Non-Catalytic Wood Stoves	28
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
2989629	996,543	0.00	0.00	15,682

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	1,315,586	75.0	0.0000	0.0000	5,921,086
Apartments Low Rise	560,053	75.0	0.0000	0.0000	1,915,091

Single Family Housing	4,689,140	75.0	0.0000	0.0000	15,999,514
Junior High School	0.00	75.0	0.0000	0.0000	0.00
Elementary School	0.00	75.0	0.0000	0.0000	0.00
Strip Mall	0.00	75.0	0.0000	0.0000	0.00
General Office Building	0.00	75.0	0.0000	0.0000	0.00
City Park	0.00	75.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	75.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	8,156,162	0.00
Apartments Low Rise	4,030,104	0.00
Single Family Housing	17,591,723	84,498,030
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	0.00	0.00
General Office Building	0.00	0.00
City Park	0.00	167
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	189	—

Apartments Low Rise	93.2	—
Single Family Housing	306	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	0.00	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00

Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A

Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7

Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948

Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—

Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	—
Operations: Road Dust	Paved road dust percentage updated per discussions with team
Operations: Water and Waste Water	—

MV OP 04 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 04
Operational Year	2030
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	255	Dwelling Unit	30.0	270,300	0.00	—	648	—

Apartments Low Rise	126	Dwelling Unit	6.00	133,560	0.00	—	320	—
Single Family Housing	550	Dwelling Unit	192	1,072,500	6,442,071	—	1,397	—
Junior High School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	0.00	1000sqft	0.00	0.00	0.00	—	—	—
General Office Building	0.00	1000sqft	0.00	0.00	0.00	—	—	—
City Park	7.00	Acre	7.00	0.00	7.00	7.00	—	—
Other Asphalt Surfaces	6.00	Acre	6.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances
Energy	E-10-B	Establish Onsite Renewable Energy Systems: Solar Power

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	42.2	83.3	39.9	242	0.51	1.97	32.9	34.8	1.94	8.36	10.3	374	65,130	65,504	40.4	1.96	104	67,201
Mit.	42.2	83.3	39.9	242	0.51	1.97	32.9	34.8	1.94	8.36	10.3	374	64,022	64,396	40.4	1.96	104	66,093

% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	2%	2%	—	—	—	2%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	34.2	75.4	42.5	181	0.48	1.94	32.9	34.8	1.92	8.36	10.3	374	62,293	62,667	40.7	2.13	13.0	64,333
Mit.	34.2	75.4	42.5	181	0.48	1.94	32.9	34.8	1.92	8.36	10.3	374	61,185	61,559	40.7	2.13	13.0	63,224
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	2%	2%	—	—	—	2%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	35.4	77.2	31.0	198	0.41	1.08	32.7	33.7	1.06	8.31	9.37	374	49,202	49,577	40.3	2.04	50.7	51,243
Mit.	35.4	77.2	31.0	198	0.41	1.08	32.7	33.7	1.06	8.31	9.37	374	48,094	48,469	40.3	2.04	50.7	50,135
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	2%	2%	—	—	—	2%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.46	14.1	5.66	36.1	0.08	0.20	5.96	6.16	0.19	1.52	1.71	62.0	8,146	8,208	6.67	0.34	8.40	8,484
Mit.	6.46	14.1	5.66	36.1	0.08	0.20	5.96	6.16	0.19	1.52	1.71	62.0	7,963	8,025	6.67	0.34	8.40	8,300
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	2%	2%	—	—	—	2%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	35.0	33.3	19.5	180	0.38	0.33	32.9	33.2	0.31	8.36	8.68	—	38,312	38,312	1.79	1.77	93.0	38,977
Area	6.45	49.7	14.4	58.9	0.09	1.15	—	1.15	1.14	—	1.14	0.00	17,784	17,784	0.34	0.03	—	17,803

Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	8,987	8,987	0.68	0.01	—	9,008
Water	—	—	—	—	—	—	—	—	—	—	—	57.1	47.1	104	5.85	0.14	—	292
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	42.2	83.3	39.9	242	0.51	1.97	32.9	34.8	1.94	8.36	10.3	374	65,130	65,504	40.4	1.96	104	67,201
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	31.8	29.9	22.6	173	0.35	0.33	32.9	33.2	0.31	8.36	8.68	—	35,616	35,616	2.13	1.94	2.41	36,251
Area	1.63	45.1	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	8,987	8,987	0.68	0.01	—	9,008
Water	—	—	—	—	—	—	—	—	—	—	—	57.1	47.1	104	5.85	0.14	—	292
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	34.2	75.4	42.5	181	0.48	1.94	32.9	34.8	1.92	8.36	10.3	374	62,293	62,667	40.7	2.13	13.0	64,333
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	31.9	30.1	21.6	168	0.36	0.33	32.7	33.0	0.31	8.31	8.62	—	36,135	36,135	1.99	1.88	40.2	36,785
Area	2.75	46.7	3.37	27.5	0.02	0.26	—	0.26	0.26	—	0.26	0.00	4,033	4,033	0.08	0.01	—	4,038
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	8,987	8,987	0.68	0.01	—	9,008
Water	—	—	—	—	—	—	—	—	—	—	—	57.1	47.1	104	5.85	0.14	—	292
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	35.4	77.2	31.0	198	0.41	1.08	32.7	33.7	1.06	8.31	9.37	374	49,202	49,577	40.3	2.04	50.7	51,243
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.83	5.49	3.94	30.6	0.06	0.06	5.96	6.02	0.06	1.52	1.57	—	5,983	5,983	0.33	0.31	6.65	6,090
Area	0.50	8.53	0.61	5.01	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	668	668	0.01	< 0.005	—	668
Energy	0.13	0.06	1.10	0.47	0.01	0.09	—	0.09	0.09	—	0.09	—	1,488	1,488	0.11	< 0.005	—	1,491
Water	—	—	—	—	—	—	—	—	—	—	—	9.45	7.80	17.3	0.97	0.02	—	48.3

Waste	—	—	—	—	—	—	—	—	—	—	—	52.5	0.00	52.5	5.25	0.00	—	184
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.75	1.75
Total	6.46	14.1	5.66	36.1	0.08	0.20	5.96	6.16	0.19	1.52	1.71	62.0	8,146	8,208	6.67	0.34	8.40	8,484

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	35.0	33.3	19.5	180	0.38	0.33	32.9	33.2	0.31	8.36	8.68	—	38,312	38,312	1.79	1.77	93.0	38,977
Area	6.45	49.7	14.4	58.9	0.09	1.15	—	1.15	1.14	—	1.14	0.00	17,784	17,784	0.34	0.03	—	17,803
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,879	7,879	0.68	0.01	—	7,900
Water	—	—	—	—	—	—	—	—	—	—	—	57.1	47.1	104	5.85	0.14	—	292
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	42.2	83.3	39.9	242	0.51	1.97	32.9	34.8	1.94	8.36	10.3	374	64,022	64,396	40.4	1.96	104	66,093
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	31.8	29.9	22.6	173	0.35	0.33	32.9	33.2	0.31	8.36	8.68	—	35,616	35,616	2.13	1.94	2.41	36,251
Area	1.63	45.1	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,879	7,879	0.68	0.01	—	7,900
Water	—	—	—	—	—	—	—	—	—	—	—	57.1	47.1	104	5.85	0.14	—	292
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	34.2	75.4	42.5	181	0.48	1.94	32.9	34.8	1.92	8.36	10.3	374	61,185	61,559	40.7	2.13	13.0	63,224
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	31.9	30.1	21.6	168	0.36	0.33	32.7	33.0	0.31	8.31	8.62	—	36,135	36,135	1.99	1.88	40.2	36,785
Area	2.75	46.7	3.37	27.5	0.02	0.26	—	0.26	0.26	—	0.26	0.00	4,033	4,033	0.08	0.01	—	4,038
Energy	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,879	7,879	0.68	0.01	—	7,900
Water	—	—	—	—	—	—	—	—	—	—	—	57.1	47.1	104	5.85	0.14	—	292
Waste	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Total	35.4	77.2	31.0	198	0.41	1.08	32.7	33.7	1.06	8.31	9.37	374	48,094	48,469	40.3	2.04	50.7	50,135
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.83	5.49	3.94	30.6	0.06	0.06	5.96	6.02	0.06	1.52	1.57	—	5,983	5,983	0.33	0.31	6.65	6,090
Area	0.50	8.53	0.61	5.01	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	668	668	0.01	< 0.005	—	668
Energy	0.13	0.06	1.10	0.47	0.01	0.09	—	0.09	0.09	—	0.09	—	1,304	1,304	0.11	< 0.005	—	1,308
Water	—	—	—	—	—	—	—	—	—	—	—	9.45	7.80	17.3	0.97	0.02	—	48.3
Waste	—	—	—	—	—	—	—	—	—	—	—	52.5	0.00	52.5	5.25	0.00	—	184
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.75	1.75
Total	6.46	14.1	5.66	36.1	0.08	0.20	5.96	6.16	0.19	1.52	1.71	62.0	7,963	8,025	6.67	0.34	8.40	8,300

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	270	270	0.00	0.00	—	270
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	115	115	0.00	0.00	—	115
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	963	963	0.00	0.00	—	963
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,348	1,348	0.00	0.00	—	1,348
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	270	270	0.00	0.00	—	270
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	115	115	0.00	0.00	—	115
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	963	963	0.00	0.00	—	963
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,348	1,348	0.00	0.00	—	1,348
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	44.7	44.7	0.00	0.00	—	44.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	19.0	19.0	0.00	0.00	—	19.0
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	159	159	0.00	0.00	—	159

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	223	223	0.00	0.00	—	223

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	240	240	0.00	0.00	—	240

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	240	240	0.00	0.00	—	240
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	240	240	0.00	0.00	—	240
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	240	240	0.00	0.00	—	240
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	39.7	39.7	0.00	0.00	—	39.7
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	39.7	39.7	0.00	0.00	—	39.7

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.17	0.09	1.49	0.64	0.01	0.12	—	0.12	0.12	—	0.12	—	1,898	1,898	0.17	< 0.005	—	1,903
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,128	5,128	0.45	0.01	—	5,142
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,639	7,639	0.68	0.01	—	7,660
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/T	0.17	0.09	1.49	0.64	0.01	0.12	—	0.12	0.12	—	0.12	—	1,898	1,898	0.17	< 0.005	—	1,903
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,128	5,128	0.45	0.01	—	5,142
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,639	7,639	0.68	0.01	—	7,660
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.03	0.02	0.27	0.12	< 0.005	0.02	—	0.02	0.02	—	0.02	—	314	314	0.03	< 0.005	—	315
Apartments Low Rise	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	102
Single Family Housing	0.09	0.04	0.74	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	849	849	0.08	< 0.005	—	851
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Element School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.13	0.06	1.10	0.47	0.01	0.09	—	0.09	0.09	—	0.09	—	1,265	1,265	0.11	< 0.005	—	1,268

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.17	0.09	1.49	0.64	0.01	0.12	—	0.12	0.12	—	0.12	—	1,898	1,898	0.17	< 0.005	—	1,903
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,128	5,128	0.45	0.01	—	5,142
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,639	7,639	0.68	0.01	—	7,660
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.17	0.09	1.49	0.64	0.01	0.12	—	0.12	0.12	—	0.12	—	1,898	1,898	0.17	< 0.005	—	1,903
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,128	5,128	0.45	0.01	—	5,142
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.70	0.35	6.02	2.56	0.04	0.49	—	0.49	0.49	—	0.49	—	7,639	7,639	0.68	0.01	—	7,660
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.03	0.02	0.27	0.12	< 0.005	0.02	—	0.02	0.02	—	0.02	—	314	314	0.03	< 0.005	—	315
Apartments Low Rise	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	102
Single Family Housing	0.09	0.04	0.74	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	849	849	0.08	< 0.005	—	851
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.13	0.06	1.10	0.47	0.01	0.09	—	0.09	0.09	—	0.09	—	1,265	1,265	0.11	< 0.005	—	1,268

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.63	0.81	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Consumer Products	—	31.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	12.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	4.83	4.57	0.49	53.0	< 0.005	0.02	—	0.02	0.02	—	0.02	—	141	141	0.01	< 0.005	—	142
Total	6.45	49.7	14.4	58.9	0.09	1.15	—	1.15	1.14	—	1.14	0.00	17,784	17,784	0.34	0.03	—	17,803
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.63	0.81	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Consumer Products	—	31.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	12.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.63	45.1	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.07	0.03	0.57	0.24	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	656	656	0.01	< 0.005	—	657
Consumer Products	—	5.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	0.43	0.41	0.04	4.77	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.5	11.5	< 0.005	< 0.005	—	11.6
Total	0.50	8.53	0.61	5.01	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	668	668	0.01	< 0.005	—	668

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.63	0.81	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Consumer Products	—	31.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	12.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	4.83	4.57	0.49	53.0	< 0.005	0.02	—	0.02	0.02	—	0.02	—	141	141	0.01	< 0.005	—	142
Total	6.45	49.7	14.4	58.9	0.09	1.15	—	1.15	1.14	—	1.14	0.00	17,784	17,784	0.34	0.03	—	17,803
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.63	0.81	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661
Consumer Products	—	31.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	12.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.63	45.1	13.9	5.91	0.09	1.12	—	1.12	1.12	—	1.12	0.00	17,643	17,643	0.33	0.03	—	17,661

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.07	0.03	0.57	0.24	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	656	656	0.01	< 0.005	—	657
Consumer Products	—	5.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.43	0.41	0.04	4.77	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.5	11.5	< 0.005	< 0.005	—	11.6
Total	0.50	8.53	0.61	5.01	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	668	668	0.01	< 0.005	—	668

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	15.6	5.25	20.9	1.60	0.04	—	72.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7.72	2.59	10.3	0.79	0.02	—	35.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	33.7	39.3	73.0	3.46	0.08	—	184

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	57.1	47.1	104	5.85	0.14	—	292
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	15.6	5.25	20.9	1.60	0.04	—	72.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7.72	2.59	10.3	0.79	0.02	—	35.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	33.7	39.3	73.0	3.46	0.08	—	184
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	57.1	47.1	104	5.85	0.14	—	292
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	2.59	0.87	3.46	0.27	0.01	—	12.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.28	0.43	1.71	0.13	< 0.005	—	5.91
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	5.58	6.51	12.1	0.57	0.01	—	30.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	9.45	7.80	17.3	0.97	0.02	—	48.3

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	15.6	5.25	20.9	1.60	0.04	—	72.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7.72	2.59	10.3	0.79	0.02	—	35.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	33.7	39.3	73.0	3.46	0.08	—	184
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	57.1	47.1	104	5.85	0.14	—	292
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/T	—	—	—	—	—	—	—	—	—	—	—	15.6	5.25	20.9	1.60	0.04	—	72.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7.72	2.59	10.3	0.79	0.02	—	35.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	33.7	39.3	73.0	3.46	0.08	—	184
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	57.1	47.1	104	5.85	0.14	—	292
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	2.59	0.87	3.46	0.27	0.01	—	12.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.28	0.43	1.71	0.13	< 0.005	—	5.91
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	5.58	6.51	12.1	0.57	0.01	—	30.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Element School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	9.45	7.80	17.3	0.97	0.02	—	48.3

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	102	0.00	102	10.2	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	165	0.00	165	16.5	0.00	—	578
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Element School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	102	0.00	102	10.2	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	165	0.00	165	16.5	0.00	—	578
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	16.8	0.00	16.8	1.68	0.00	—	58.9
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	8.31	0.00	8.31	0.83	0.00	—	29.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	27.3	0.00	27.3	2.73	0.00	—	95.7
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	52.5	0.00	52.5	5.25	0.00	—	184

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	102	0.00	102	10.2	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	165	0.00	165	16.5	0.00	—	578
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	102	0.00	102	10.2	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	165	0.00	165	16.5	0.00	—	578
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	317	0.00	317	31.7	0.00	—	1,110
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	16.8	0.00	16.8	1.68	0.00	—	58.9
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	8.31	0.00	8.31	0.83	0.00	—	29.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	27.3	0.00	27.3	2.73	0.00	—	95.7
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	52.5	0.00	52.5	5.25	0.00	—	184

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.94	1.94
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.68	7.68
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.94	1.94
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.68	7.68
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.32	0.32

Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.27	1.27
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.75	1.75

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.94	1.94
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.68	7.68
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.94	1.94
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.68	7.68
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.6	10.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.32	0.32
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.27	1.27
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.75	1.75

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	7,885	7,885	7,885	2,878,158	46,195	46,195	46,195	16,861,288

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	7,885	7,885	7,885	2,878,158	46,195	46,195	46,195	16,861,288

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	230
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	113
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	495
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	230
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—

Wood Fireplaces	0
Gas Fireplaces	113
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	495
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
2989629	996,543	0.00	0.00	15,682

5.10.3. Landscape Equipment

Season	Unit	Value

Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	1,315,586	75.0	0.0000	0.0000	5,921,086
Apartments Low Rise	560,053	75.0	0.0000	0.0000	1,915,091
Single Family Housing	4,689,140	75.0	0.0000	0.0000	15,999,514
Junior High School	0.00	75.0	0.0000	0.0000	0.00
Elementary School	0.00	75.0	0.0000	0.0000	0.00
Strip Mall	0.00	75.0	0.0000	0.0000	0.00
General Office Building	0.00	75.0	0.0000	0.0000	0.00
City Park	0.00	75.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	75.0	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	< 0.005	75.0	0.0000	0.0000	5,921,086

Apartments Low Rise	0.44	75.0	0.0000	0.0000	1,915,091
Single Family Housing	1,168,351	75.0	0.0000	0.0000	15,999,514
Junior High School	0.00	75.0	0.0000	0.0000	0.00
Elementary School	0.00	75.0	0.0000	0.0000	0.00
Strip Mall	0.00	75.0	0.0000	0.0000	0.00
General Office Building	0.00	75.0	0.0000	0.0000	0.00
City Park	0.00	75.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	75.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	8,156,162	0.00
Apartments Low Rise	4,030,104	0.00
Single Family Housing	17,591,723	84,498,030
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	0.00	0.00
General Office Building	0.00	0.00
City Park	0.00	167
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	8,156,162	0.00
Apartments Low Rise	4,030,104	0.00

Single Family Housing	17,591,723	84,498,030
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	0.00	0.00
General Office Building	0.00	0.00
City Park	0.00	167
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	189	—
Apartments Low Rise	93.2	—
Single Family Housing	306	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	0.00	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	189	—
Apartments Low Rise	93.2	—
Single Family Housing	306	—

Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	0.00	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A

Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7

Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948

Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—

Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team
Operations: Water and Waste Water	—

MV OP 05 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 05
Operational Year	2031
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	306	Dwelling Unit	36.0	324,360	0.00	—	777	—

Apartments Low Rise	126	Dwelling Unit	6.00	133,560	0.00	—	320	—
Single Family Housing	660	Dwelling Unit	230	1,287,000	7,730,486	—	1,676	—
Junior High School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	33.3	1000sqft	0.77	33,334	0.00	—	—	—
General Office Building	0.00	1000sqft	0.00	0.00	0.00	—	—	—
City Park	7.00	Acre	7.00	0.00	7.00	7.00	—	—
Other Asphalt Surfaces	6.00	Acre	6.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	50.7	100	46.0	283	0.59	2.30	39.0	41.2	2.27	9.91	12.2	461	76,232	76,693	49.6	2.30	110	78,727
Mit.	50.7	100	46.0	283	0.59	2.30	39.0	41.2	2.27	9.91	12.2	461	76,231	76,692	49.6	2.30	110	78,726
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	41.0	90.7	49.0	212	0.56	2.27	39.0	41.2	2.25	9.91	12.2	461	72,909	73,370	50.0	2.50	15.2	75,380
Mit.	41.0	90.7	49.0	212	0.56	2.27	39.0	41.2	2.25	9.91	12.2	461	72,908	73,369	50.0	2.50	15.2	75,379
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	42.6	92.9	35.4	232	0.48	1.26	38.7	40.0	1.23	9.84	11.1	461	57,555	58,016	49.5	2.39	54.9	60,022
Mit.	42.6	92.9	35.4	232	0.48	1.26	38.7	40.0	1.23	9.84	11.1	461	57,554	58,015	49.5	2.39	54.9	60,021
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.77	17.0	6.47	42.3	0.09	0.23	7.06	7.29	0.23	1.80	2.02	76.3	9,529	9,605	8.20	0.40	9.08	9,937
Mit.	7.77	17.0	6.47	42.3	0.09	0.23	7.06	7.29	0.23	1.80	2.02	76.3	9,529	9,605	8.20	0.40	9.08	9,937
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	42.1	40.1	21.9	210	0.44	0.37	39.0	39.3	0.35	9.91	10.3	—	44,632	44,632	2.11	2.07	97.6	45,398
Area	7.82	59.8	16.9	70.6	0.11	1.35	—	1.35	1.34	—	1.34	0.00	20,865	20,865	0.40	0.04	—	20,887
Energy	0.84	0.42	7.20	3.10	0.05	0.58	—	0.58	0.58	—	0.58	—	10,680	10,680	0.81	0.02	—	10,706
Water	—	—	—	—	—	—	—	—	—	—	—	71.7	53.8	125	7.35	0.17	—	361

Waste	—	—	—	—	—	—	—	—	—	—	—	389	0.00	389	38.9	0.00	—	1,363
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.7	12.7
Total	50.7	100	46.0	283	0.59	2.30	39.0	41.2	2.27	9.91	12.2	461	76,232	76,693	49.6	2.30	110	78,727
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	38.3	36.1	25.5	202	0.41	0.37	39.0	39.3	0.35	9.91	10.3	—	41,481	41,481	2.52	2.27	2.53	42,223
Area	1.91	54.2	16.3	6.94	0.10	1.32	—	1.32	1.32	—	1.32	0.00	20,694	20,694	0.39	0.04	—	20,715
Energy	0.84	0.42	7.20	3.10	0.05	0.58	—	0.58	0.58	—	0.58	—	10,680	10,680	0.81	0.02	—	10,706
Water	—	—	—	—	—	—	—	—	—	—	—	71.7	53.8	125	7.35	0.17	—	361
Waste	—	—	—	—	—	—	—	—	—	—	—	389	0.00	389	38.9	0.00	—	1,363
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.7	12.7
Total	41.0	90.7	49.0	212	0.56	2.27	39.0	41.2	2.25	9.91	12.2	461	72,909	73,370	50.0	2.50	15.2	75,380
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	38.4	36.3	24.3	196	0.41	0.37	38.7	39.1	0.35	9.84	10.2	—	42,088	42,088	2.35	2.19	42.2	42,842
Area	3.34	56.2	3.95	32.9	0.02	0.31	—	0.31	0.31	—	0.31	0.00	4,734	4,734	0.09	0.01	—	4,739
Energy	0.84	0.42	7.20	3.10	0.05	0.58	—	0.58	0.58	—	0.58	—	10,680	10,680	0.81	0.02	—	10,706
Water	—	—	—	—	—	—	—	—	—	—	—	71.7	53.8	125	7.35	0.17	—	361
Waste	—	—	—	—	—	—	—	—	—	—	—	389	0.00	389	38.9	0.00	—	1,363
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.7	12.7
Total	42.6	92.9	35.4	232	0.48	1.26	38.7	40.0	1.23	9.84	11.1	461	57,555	58,016	49.5	2.39	54.9	60,022
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.01	6.62	4.43	35.7	0.08	0.07	7.06	7.13	0.06	1.80	1.86	—	6,968	6,968	0.39	0.36	6.98	7,093
Area	0.61	10.3	0.72	6.01	< 0.005	0.06	—	0.06	0.06	—	0.06	0.00	784	784	0.02	< 0.005	—	785
Energy	0.15	0.08	1.31	0.57	0.01	0.11	—	0.11	0.11	—	0.11	—	1,768	1,768	0.13	< 0.005	—	1,772
Water	—	—	—	—	—	—	—	—	—	—	—	11.9	8.90	20.8	1.22	0.03	—	59.8
Waste	—	—	—	—	—	—	—	—	—	—	—	64.5	0.00	64.5	6.44	0.00	—	226
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.10	2.10

Total	7.77	17.0	6.47	42.3	0.09	0.23	7.06	7.29	0.23	1.80	2.02	76.3	9,529	9,605	8.20	0.40	9.08	9,937

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	42.1	40.1	21.9	210	0.44	0.37	39.0	39.3	0.35	9.91	10.3	—	44,632	44,632	2.11	2.07	97.6	45,398
Area	7.82	59.8	16.9	70.6	0.11	1.35	—	1.35	1.34	—	1.34	0.00	20,865	20,865	0.40	0.04	—	20,887
Energy	0.84	0.42	7.20	3.10	0.05	0.58	—	0.58	0.58	—	0.58	—	10,679	10,679	0.81	0.02	—	10,704
Water	—	—	—	—	—	—	—	—	—	—	—	71.7	53.8	125	7.35	0.17	—	361
Waste	—	—	—	—	—	—	—	—	—	—	—	389	0.00	389	38.9	0.00	—	1,363
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.7	12.7
Total	50.7	100	46.0	283	0.59	2.30	39.0	41.2	2.27	9.91	12.2	461	76,231	76,692	49.6	2.30	110	78,726
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	38.3	36.1	25.5	202	0.41	0.37	39.0	39.3	0.35	9.91	10.3	—	41,481	41,481	2.52	2.27	2.53	42,223
Area	1.91	54.2	16.3	6.94	0.10	1.32	—	1.32	1.32	—	1.32	0.00	20,694	20,694	0.39	0.04	—	20,715
Energy	0.84	0.42	7.20	3.10	0.05	0.58	—	0.58	0.58	—	0.58	—	10,679	10,679	0.81	0.02	—	10,704
Water	—	—	—	—	—	—	—	—	—	—	—	71.7	53.8	125	7.35	0.17	—	361
Waste	—	—	—	—	—	—	—	—	—	—	—	389	0.00	389	38.9	0.00	—	1,363
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.7	12.7
Total	41.0	90.7	49.0	212	0.56	2.27	39.0	41.2	2.25	9.91	12.2	461	72,908	73,369	50.0	2.50	15.2	75,379
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	38.4	36.3	24.3	196	0.41	0.37	38.7	39.1	0.35	9.84	10.2	—	42,088	42,088	2.35	2.19	42.2	42,842
Area	3.34	56.2	3.95	32.9	0.02	0.31	—	0.31	0.31	—	0.31	0.00	4,734	4,734	0.09	0.01	—	4,739

Energy	0.84	0.42	7.20	3.10	0.05	0.58	—	0.58	0.58	—	0.58	—	10,679	10,679	0.81	0.02	—	10,704
Water	—	—	—	—	—	—	—	—	—	—	—	71.7	53.8	125	7.35	0.17	—	361
Waste	—	—	—	—	—	—	—	—	—	—	—	389	0.00	389	38.9	0.00	—	1,363
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.7	12.7
Total	42.6	92.9	35.4	232	0.48	1.26	38.7	40.0	1.23	9.84	11.1	461	57,554	58,015	49.5	2.39	54.9	60,021
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.01	6.62	4.43	35.7	0.08	0.07	7.06	7.13	0.06	1.80	1.86	—	6,968	6,968	0.39	0.36	6.98	7,093
Area	0.61	10.3	0.72	6.01	< 0.005	0.06	—	0.06	0.06	—	0.06	0.00	784	784	0.02	< 0.005	—	785
Energy	0.15	0.08	1.31	0.57	0.01	0.11	—	0.11	0.11	—	0.11	—	1,768	1,768	0.13	< 0.005	—	1,772
Water	—	—	—	—	—	—	—	—	—	—	—	11.9	8.90	20.8	1.22	0.03	—	59.8
Waste	—	—	—	—	—	—	—	—	—	—	—	64.5	0.00	64.5	6.44	0.00	—	226
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.10	2.10
Total	7.77	17.0	6.47	42.3	0.09	0.23	7.06	7.29	0.23	1.80	2.02	76.3	9,529	9,605	8.20	0.40	9.08	9,937

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	303	303	0.00	0.00	—	303
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	107	107	0.00	0.00	—	107
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078	0.00	0.00	—	1,078
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	55.7	55.7	0.00	0.00	—	55.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,544	1,544	0.00	0.00	—	1,544
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	303	303	0.00	0.00	—	303
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	107	107	0.00	0.00	—	107

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078	0.00	0.00	—	1,078
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	55.7	55.7	0.00	0.00	—	55.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,544	1,544	0.00	0.00	—	1,544
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	50.1	50.1	0.00	0.00	—	50.1
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	17.8	17.8	0.00	0.00	—	17.8
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	179	179	0.00	0.00	—	179
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	9.22	9.22	0.00	0.00	—	9.22

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	256	256	0.00	0.00	—	256

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	302	302	0.00	0.00	—	302
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	107	107	0.00	0.00	—	107
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078	0.00	0.00	—	1,078
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	55.7	55.7	0.00	0.00	—	55.7

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,543	1,543	0.00	0.00	—	1,543
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	302	302	0.00	0.00	—	302
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	107	107	0.00	0.00	—	107
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078	0.00	0.00	—	1,078
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	55.7	55.7	0.00	0.00	—	55.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,543	1,543	0.00	0.00	—	1,543

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	50.0	50.0	0.00	0.00	—	50.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	17.8	17.8	0.00	0.00	—	17.8
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	178	178	0.00	0.00	—	178
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	9.22	9.22	0.00	0.00	—	9.22
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	255	255	0.00	0.00	—	255

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	0.21	0.10	1.79	0.76	0.01	0.15	—	0.15	0.15	—	0.15	—	2,277	2,277	0.20	< 0.005	—	2,283
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.57	0.28	4.85	2.06	0.03	0.39	—	0.39	0.39	—	0.39	—	6,153	6,153	0.54	0.01	—	6,170
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.84	0.42	7.20	3.10	0.05	0.58	—	0.58	0.58	—	0.58	—	9,136	9,136	0.81	0.02	—	9,162
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.21	0.10	1.79	0.76	0.01	0.15	—	0.15	0.15	—	0.15	—	2,277	2,277	0.20	< 0.005	—	2,283
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.57	0.28	4.85	2.06	0.03	0.39	—	0.39	0.39	—	0.39	—	6,153	6,153	0.54	0.01	—	6,170

Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.84	0.42	7.20	3.10	0.05	0.58	—	0.58	0.58	—	0.58	—	9,136	9,136	0.81	0.02	—	9,162
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.04	0.02	0.33	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	377	377	0.03	< 0.005	—	378
Apartments Low Rise	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	102
Single Family Housing	0.10	0.05	0.88	0.38	0.01	0.07	—	0.07	0.07	—	0.07	—	1,019	1,019	0.09	< 0.005	—	1,022
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.3
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.15	0.08	1.31	0.57	0.01	0.11	—	0.11	0.11	—	0.11	—	1,513	1,513	0.13	< 0.005	—	1,517

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.21	0.10	1.79	0.76	0.01	0.15	—	0.15	0.15	—	0.15	—	2,277	2,277	0.20	< 0.005	—	2,283
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.57	0.28	4.85	2.06	0.03	0.39	—	0.39	0.39	—	0.39	—	6,153	6,153	0.54	0.01	—	6,170
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.84	0.42	7.20	3.10	0.05	0.58	—	0.58	0.58	—	0.58	—	9,136	9,136	0.81	0.02	—	9,162
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.21	0.10	1.79	0.76	0.01	0.15	—	0.15	0.15	—	0.15	—	2,277	2,277	0.20	< 0.005	—	2,283
Apartments Low Rise	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	614	614	0.05	< 0.005	—	615
Single Family Housing	0.57	0.28	4.85	2.06	0.03	0.39	—	0.39	0.39	—	0.39	—	6,153	6,153	0.54	0.01	—	6,170
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.84	0.42	7.20	3.10	0.05	0.58	—	0.58	0.58	—	0.58	—	9,136	9,136	0.81	0.02	—	9,162
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.04	0.02	0.33	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	377	377	0.03	< 0.005	—	378

Apartment Low Rise	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	102	102	0.01	< 0.005	—	102
Single Family Housing	0.10	0.05	0.88	0.38	0.01	0.07	—	0.07	0.07	—	0.07	—	1,019	1,019	0.09	< 0.005	—	1,022
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.3
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.15	0.08	1.31	0.57	0.01	0.11	—	0.11	0.11	—	0.11	—	1,513	1,513	0.13	< 0.005	—	1,517

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.91	0.95	16.3	6.94	0.10	1.32	—	1.32	1.32	—	1.32	0.00	20,694	20,694	0.39	0.04	—	20,715
Consumer Products	—	38.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	15.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	5.91	5.59	0.59	63.6	< 0.005	0.03	—	0.03	0.02	—	0.02	—	172	172	0.01	< 0.005	—	172
Total	7.82	59.8	16.9	70.6	0.11	1.35	—	1.35	1.34	—	1.34	0.00	20,865	20,865	0.40	0.04	—	20,887
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.91	0.95	16.3	6.94	0.10	1.32	—	1.32	1.32	—	1.32	0.00	20,694	20,694	0.39	0.04	—	20,715
Consumer Products	—	38.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	15.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.91	54.2	16.3	6.94	0.10	1.32	—	1.32	1.32	—	1.32	0.00	20,694	20,694	0.39	0.04	—	20,715
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.08	0.04	0.67	0.28	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	770	770	0.01	< 0.005	—	770
Consumer Products	—	6.95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	2.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.53	0.50	0.05	5.73	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.0	14.0	< 0.005	< 0.005	—	14.1
Total	0.61	10.3	0.72	6.01	< 0.005	0.06	—	0.06	0.06	—	0.06	0.00	784	784	0.02	< 0.005	—	785

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.91	0.95	16.3	6.94	0.10	1.32	—	1.32	1.32	—	1.32	0.00	20,694	20,694	0.39	0.04	—	20,715
Consumer Products	—	38.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	15.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	5.91	5.59	0.59	63.6	< 0.005	0.03	—	0.03	0.02	—	0.02	—	172	172	0.01	< 0.005	—	172
Total	7.82	59.8	16.9	70.6	0.11	1.35	—	1.35	1.34	—	1.34	0.00	20,865	20,865	0.40	0.04	—	20,887
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	1.91	0.95	16.3	6.94	0.10	1.32	—	1.32	1.32	—	1.32	0.00	20,694	20,694	0.39	0.04	—	20,715
Consumer Products	—	38.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	15.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.91	54.2	16.3	6.94	0.10	1.32	—	1.32	1.32	—	1.32	0.00	20,694	20,694	0.39	0.04	—	20,715
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.08	0.04	0.67	0.28	< 0.005	0.05	—	0.05	0.05	—	0.05	0.00	770	770	0.01	< 0.005	—	770
Consumer Products	—	6.95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	2.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.53	0.50	0.05	5.73	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.0	14.0	< 0.005	< 0.005	—	14.1
Total	0.61	10.3	0.72	6.01	< 0.005	0.06	—	0.06	0.06	—	0.06	0.00	784	784	0.02	< 0.005	—	785

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	18.8	5.87	24.6	1.92	0.05	—	86.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7.72	2.42	10.1	0.79	0.02	—	35.5
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	40.5	44.0	84.5	4.15	0.10	—	218
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.48	6.21	0.49	0.01	—	21.8

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	71.7	53.8	125	7.35	0.17	—	361
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	18.8	5.87	24.6	1.92	0.05	—	86.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7.72	2.42	10.1	0.79	0.02	—	35.5
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	40.5	44.0	84.5	4.15	0.10	—	218
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.48	6.21	0.49	0.01	—	21.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	71.7	53.8	125	7.35	0.17	—	361

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	3.11	0.97	4.08	0.32	0.01	—	14.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.28	0.40	1.68	0.13	< 0.005	—	5.88
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	6.70	7.29	14.0	0.69	0.02	—	36.0
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.78	0.25	1.03	0.08	< 0.005	—	3.61
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	11.9	8.90	20.8	1.22	0.03	—	59.8

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	18.8	5.87	24.6	1.92	0.05	—	86.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7.72	2.42	10.1	0.79	0.02	—	35.5
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	40.5	44.0	84.5	4.15	0.10	—	218
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.48	6.21	0.49	0.01	—	21.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	71.7	53.8	125	7.35	0.17	—	361
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	18.8	5.87	24.6	1.92	0.05	—	86.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	7.72	2.42	10.1	0.79	0.02	—	35.5
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	40.5	44.0	84.5	4.15	0.10	—	218

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.48	6.21	0.49	0.01	—	21.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	71.7	53.8	125	7.35	0.17	—	361
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	3.11	0.97	4.08	0.32	0.01	—	14.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.28	0.40	1.68	0.13	< 0.005	—	5.88
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	6.70	7.29	14.0	0.69	0.02	—	36.0
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.78	0.25	1.03	0.08	< 0.005	—	3.61
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	11.9	8.90	20.8	1.22	0.03	—	59.8

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	122	0.00	122	12.2	0.00	—	426
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	198	0.00	198	19.8	0.00	—	693
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	389	0.00	389	38.9	0.00	—	1,363
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	122	0.00	122	12.2	0.00	—	426
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	198	0.00	198	19.8	0.00	—	693
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	389	0.00	389	38.9	0.00	—	1,363
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	20.2	0.00	20.2	2.02	0.00	—	70.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	8.31	0.00	8.31	0.83	0.00	—	29.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	32.8	0.00	32.8	3.28	0.00	—	115
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.12	0.00	3.12	0.31	0.00	—	10.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	64.5	0.00	64.5	6.44	0.00	—	226

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	122	0.00	122	12.2	0.00	—	426
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	198	0.00	198	19.8	0.00	—	693
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	389	0.00	389	38.9	0.00	—	1,363
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	122	0.00	122	12.2	0.00	—	426
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	50.2	0.00	50.2	5.02	0.00	—	176
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	198	0.00	198	19.8	0.00	—	693

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	389	0.00	389	38.9	0.00	—	1,363
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	20.2	0.00	20.2	2.02	0.00	—	70.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	8.31	0.00	8.31	0.83	0.00	—	29.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	32.8	0.00	32.8	3.28	0.00	—	115
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.12	0.00	3.12	0.31	0.00	—	10.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	64.5	0.00	64.5	6.44	0.00	—	226

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.32	2.32
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.22	9.22
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.7	12.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.32	2.32
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.22	9.22
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.7	12.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.38	0.38
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.53	1.53
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.10	2.10

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.32	2.32
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.22	9.22

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.7	12.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.32	2.32
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.96	0.96
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.22	9.22
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.7	12.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.38	0.38
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.53	1.53
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.10	2.10

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	10,076	10,076	10,076	3,677,868	54,760	54,760	54,760	19,987,268

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	10,076	10,076	10,076	3,677,868	54,760	54,760	54,760	19,987,268

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	275
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	113
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	594

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	275
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	113
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	594
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
3533463	1,177,821	50,001	16,667	15,682

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	1,578,704	70.0	0.0000	0.0000	7,105,303
Apartments Low Rise	560,053	70.0	0.0000	0.0000	1,915,091
Single Family Housing	5,626,968	70.0	0.0000	0.0000	19,199,417
Junior High School	0.00	70.0	0.0000	0.0000	0.00
Elementary School	0.00	70.0	0.0000	0.0000	0.00
Strip Mall	290,408	70.0	0.0000	0.0000	287,526
General Office Building	0.00	70.0	0.0000	0.0000	0.00
City Park	0.00	70.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	70.0	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	1,577,196	70.0	0.0000	0.0000	7,105,303
Apartments Low Rise	559,742	70.0	0.0000	0.0000	1,915,091
Single Family Housing	5,623,169	70.0	0.0000	0.0000	19,199,417
Junior High School	0.00	70.0	0.0000	0.0000	0.00
Elementary School	0.00	70.0	0.0000	0.0000	0.00
Strip Mall	290,408	70.0	0.0000	0.0000	287,526
General Office Building	0.00	70.0	0.0000	0.0000	0.00

City Park	0.00	70.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	70.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	9,787,395	0.00
Apartments Low Rise	4,030,104	0.00
Single Family Housing	21,110,067	101,397,646
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	2,469,133	0.00
General Office Building	0.00	0.00
City Park	0.00	167
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	9,787,395	0.00
Apartments Low Rise	4,030,104	0.00
Single Family Housing	21,110,067	101,397,646
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	2,469,133	0.00
General Office Building	0.00	0.00
City Park	0.00	167

Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	226	—
Apartments Low Rise	93.2	—
Single Family Housing	368	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	35.0	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	226	—
Apartments Low Rise	93.2	—
Single Family Housing	368	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	35.0	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9

AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—

Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8

Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team

MV OP 06 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 06
Operational Year	2032
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	357	Dwelling Unit	42.0	378,420	0.00	—	907	—

Apartments Low Rise	202	Dwelling Unit	10.0	214,120	0.00	—	513	—
Single Family Housing	770	Dwelling Unit	269	1,501,500	9,018,900	—	1,956	—
Junior High School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	33.3	1000sqft	0.77	33,334	0.00	—	—	—
General Office Building	0.00	1000sqft	0.00	0.00	0.00	—	—	—
City Park	7.00	Acre	7.00	0.00	7.00	7.00	—	—
Other Asphalt Surfaces	6.00	Acre	6.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	58.8	118	53.9	336	0.71	2.75	47.6	50.4	2.71	12.1	14.8	559	91,575	92,135	60.0	2.70	120	94,559
Mit.	58.8	118	53.9	336	0.71	2.75	47.6	50.4	2.71	12.1	14.8	559	91,574	92,134	60.0	2.70	120	94,558
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	47.5	107	57.2	248	0.67	2.71	47.6	50.3	2.69	12.1	14.8	559	87,556	88,115	60.5	2.94	17.9	90,520
Mit.	47.5	107	57.2	248	0.67	2.71	47.6	50.3	2.69	12.1	14.8	559	87,555	88,114	60.5	2.94	17.9	90,519
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	49.3	110	40.8	273	0.58	1.49	47.3	48.8	1.46	12.0	13.5	559	68,866	69,425	59.9	2.81	60.7	71,821
Mit.	49.3	110	40.8	273	0.58	1.49	47.3	48.8	1.46	12.0	13.5	559	68,865	69,424	59.9	2.81	60.7	71,819
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.00	20.0	7.45	49.8	0.11	0.27	8.63	8.90	0.27	2.19	2.46	92.6	11,402	11,494	9.92	0.46	10.0	11,891
Mit.	9.00	20.0	7.45	49.8	0.11	0.27	8.63	8.90	0.27	2.19	2.46	92.6	11,401	11,494	9.92	0.46	10.0	11,891
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	48.4	46.0	24.7	246	0.53	0.41	47.6	48.0	0.39	12.1	12.5	—	53,505	53,505	2.43	2.42	105	54,391
Area	9.46	71.6	20.6	85.6	0.13	1.64	—	1.64	1.63	—	1.63	0.00	25,392	25,392	0.48	0.05	—	25,419
Energy	1.01	0.50	8.60	3.69	0.05	0.70	—	0.70	0.70	—	0.70	—	12,619	12,619	0.97	0.02	—	12,649
Water	—	—	—	—	—	—	—	—	—	—	—	86.2	59.0	145	8.84	0.21	—	429

Waste	—	—	—	—	—	—	—	—	—	—	—	473	0.00	473	47.3	0.00	—	1,656
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.2	15.2
Total	58.8	118	53.9	336	0.71	2.75	47.6	50.4	2.71	12.1	14.8	559	91,575	92,135	60.0	2.70	120	94,559
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	44.2	41.6	28.8	236	0.49	0.41	47.6	48.0	0.39	12.1	12.5	—	49,693	49,693	2.90	2.66	2.73	50,560
Area	2.32	64.9	19.8	8.44	0.13	1.60	—	1.60	1.60	—	1.60	0.00	25,185	25,185	0.47	0.05	—	25,211
Energy	1.01	0.50	8.60	3.69	0.05	0.70	—	0.70	0.70	—	0.70	—	12,619	12,619	0.97	0.02	—	12,649
Water	—	—	—	—	—	—	—	—	—	—	—	86.2	59.0	145	8.84	0.21	—	429
Waste	—	—	—	—	—	—	—	—	—	—	—	473	0.00	473	47.3	0.00	—	1,656
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.2	15.2
Total	47.5	107	57.2	248	0.67	2.71	47.6	50.3	2.69	12.1	14.8	559	87,556	88,115	60.5	2.94	17.9	90,520
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	44.3	41.8	27.4	229	0.50	0.41	47.3	47.7	0.39	12.0	12.4	—	50,428	50,428	2.71	2.57	45.5	51,305
Area	4.04	67.3	4.81	40.0	0.03	0.38	—	0.38	0.37	—	0.37	0.00	5,760	5,760	0.11	0.01	—	5,767
Energy	1.01	0.50	8.60	3.69	0.05	0.70	—	0.70	0.70	—	0.70	—	12,619	12,619	0.97	0.02	—	12,649
Water	—	—	—	—	—	—	—	—	—	—	—	86.2	59.0	145	8.84	0.21	—	429
Waste	—	—	—	—	—	—	—	—	—	—	—	473	0.00	473	47.3	0.00	—	1,656
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.2	15.2
Total	49.3	110	40.8	273	0.58	1.49	47.3	48.8	1.46	12.0	13.5	559	68,866	69,425	59.9	2.81	60.7	71,821
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.08	7.64	5.00	41.8	0.09	0.08	8.63	8.71	0.07	2.19	2.27	—	8,349	8,349	0.45	0.42	7.53	8,494
Area	0.74	12.3	0.88	7.29	0.01	0.07	—	0.07	0.07	—	0.07	0.00	954	954	0.02	< 0.005	—	955
Energy	0.18	0.09	1.57	0.67	0.01	0.13	—	0.13	0.13	—	0.13	—	2,089	2,089	0.16	< 0.005	—	2,094
Water	—	—	—	—	—	—	—	—	—	—	—	14.3	9.77	24.0	1.46	0.03	—	71.0
Waste	—	—	—	—	—	—	—	—	—	—	—	78.3	0.00	78.3	7.83	0.00	—	274
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.52	2.52

Total	9.00	20.0	7.45	49.8	0.11	0.27	8.63	8.90	0.27	2.19	2.46	92.6	11,402	11,494	9.92	0.46	10.0	11,891

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	48.4	46.0	24.7	246	0.53	0.41	47.6	48.0	0.39	12.1	12.5	—	53,505	53,505	2.43	2.42	105	54,391
Area	9.46	71.6	20.6	85.6	0.13	1.64	—	1.64	1.63	—	1.63	0.00	25,392	25,392	0.48	0.05	—	25,419
Energy	1.01	0.50	8.60	3.69	0.05	0.70	—	0.70	0.70	—	0.70	—	12,618	12,618	0.97	0.02	—	12,648
Water	—	—	—	—	—	—	—	—	—	—	—	86.2	59.0	145	8.84	0.21	—	429
Waste	—	—	—	—	—	—	—	—	—	—	—	473	0.00	473	47.3	0.00	—	1,656
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.2	15.2
Total	58.8	118	53.9	336	0.71	2.75	47.6	50.4	2.71	12.1	14.8	559	91,574	92,134	60.0	2.70	120	94,558
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	44.2	41.6	28.8	236	0.49	0.41	47.6	48.0	0.39	12.1	12.5	—	49,693	49,693	2.90	2.66	2.73	50,560
Area	2.32	64.9	19.8	8.44	0.13	1.60	—	1.60	1.60	—	1.60	0.00	25,185	25,185	0.47	0.05	—	25,211
Energy	1.01	0.50	8.60	3.69	0.05	0.70	—	0.70	0.70	—	0.70	—	12,618	12,618	0.97	0.02	—	12,648
Water	—	—	—	—	—	—	—	—	—	—	—	86.2	59.0	145	8.84	0.21	—	429
Waste	—	—	—	—	—	—	—	—	—	—	—	473	0.00	473	47.3	0.00	—	1,656
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.2	15.2
Total	47.5	107	57.2	248	0.67	2.71	47.6	50.3	2.69	12.1	14.8	559	87,555	88,114	60.5	2.94	17.9	90,519
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	44.3	41.8	27.4	229	0.50	0.41	47.3	47.7	0.39	12.0	12.4	—	50,428	50,428	2.71	2.57	45.5	51,305
Area	4.04	67.3	4.81	40.0	0.03	0.38	—	0.38	0.37	—	0.37	0.00	5,760	5,760	0.11	0.01	—	5,767

Energy	1.01	0.50	8.60	3.69	0.05	0.70	—	0.70	0.70	—	0.70	—	12,618	12,618	0.97	0.02	—	12,648
Water	—	—	—	—	—	—	—	—	—	—	—	86.2	59.0	145	8.84	0.21	—	429
Waste	—	—	—	—	—	—	—	—	—	—	—	473	0.00	473	47.3	0.00	—	1,656
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.2	15.2
Total	49.3	110	40.8	273	0.58	1.49	47.3	48.8	1.46	12.0	13.5	559	68,865	69,424	59.9	2.81	60.7	71,819
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.08	7.64	5.00	41.8	0.09	0.08	8.63	8.71	0.07	2.19	2.27	—	8,349	8,349	0.45	0.42	7.53	8,494
Area	0.74	12.3	0.88	7.29	0.01	0.07	—	0.07	0.07	—	0.07	0.00	954	954	0.02	< 0.005	—	955
Energy	0.18	0.09	1.57	0.67	0.01	0.13	—	0.13	0.13	—	0.13	—	2,089	2,089	0.16	< 0.005	—	2,094
Water	—	—	—	—	—	—	—	—	—	—	—	14.3	9.77	24.0	1.46	0.03	—	71.0
Waste	—	—	—	—	—	—	—	—	—	—	—	78.3	0.00	78.3	7.83	0.00	—	274
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.52	2.52
Total	9.00	20.0	7.45	49.8	0.11	0.27	8.63	8.90	0.27	2.19	2.46	92.6	11,401	11,494	9.92	0.46	10.0	11,891

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	328	328	0.00	0.00	—	328
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	160	160	0.00	0.00	—	160
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,168	1,168	0.00	0.00	—	1,168
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	51.7	51.7	0.00	0.00	—	51.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,708	1,708	0.00	0.00	—	1,708
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	328	328	0.00	0.00	—	328
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	160	160	0.00	0.00	—	160

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,168	1,168	0.00	0.00	—	1,168
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	51.7	51.7	0.00	0.00	—	51.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,708	1,708	0.00	0.00	—	1,708
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	54.3	54.3	0.00	0.00	—	54.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	26.5	26.5	0.00	0.00	—	26.5
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	193	193	0.00	0.00	—	193
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	8.56	8.56	0.00	0.00	—	8.56

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	283	283	0.00	0.00	—	283

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	327	327	0.00	0.00	—	327
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	160	160	0.00	0.00	—	160
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,168	1,168	0.00	0.00	—	1,168
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	51.7	51.7	0.00	0.00	—	51.7

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,706	1,706	0.00	0.00	—	1,706
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	327	327	0.00	0.00	—	327
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	160	160	0.00	0.00	—	160
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,168	1,168	0.00	0.00	—	1,168
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	51.7	51.7	0.00	0.00	—	51.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,706	1,706	0.00	0.00	—	1,706

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	54.2	54.2	0.00	0.00	—	54.2
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	26.4	26.4	0.00	0.00	—	26.4
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	193	193	0.00	0.00	—	193
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	8.56	8.56	0.00	0.00	—	8.56
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	283	283	0.00	0.00	—	283

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	0.24	0.12	2.09	0.89	0.01	0.17	—	0.17	0.17	—	0.17	—	2,657	2,657	0.24	0.01	—	2,664
Apartments Low Rise	0.09	0.05	0.78	0.33	< 0.005	0.06	—	0.06	0.06	—	0.06	—	984	984	0.09	< 0.005	—	987
Single Family Housing	0.66	0.33	5.66	2.41	0.04	0.46	—	0.46	0.46	—	0.46	—	7,179	7,179	0.64	0.01	—	7,199
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.01	0.50	8.60	3.69	0.05	0.70	—	0.70	0.70	—	0.70	—	10,911	10,911	0.97	0.02	—	10,942
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.24	0.12	2.09	0.89	0.01	0.17	—	0.17	0.17	—	0.17	—	2,657	2,657	0.24	0.01	—	2,664
Apartments Low Rise	0.09	0.05	0.78	0.33	< 0.005	0.06	—	0.06	0.06	—	0.06	—	984	984	0.09	< 0.005	—	987
Single Family Housing	0.66	0.33	5.66	2.41	0.04	0.46	—	0.46	0.46	—	0.46	—	7,179	7,179	0.64	0.01	—	7,199

Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.01	0.50	8.60	3.69	0.05	0.70	—	0.70	0.70	—	0.70	—	10,911	10,911	0.97	0.02	—	10,942
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.04	0.02	0.38	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	440	440	0.04	< 0.005	—	441
Apartments Low Rise	0.02	0.01	0.14	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	163	163	0.01	< 0.005	—	163
Single Family Housing	0.12	0.06	1.03	0.44	0.01	0.08	—	0.08	0.08	—	0.08	—	1,189	1,189	0.11	< 0.005	—	1,192
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.3
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.18	0.09	1.57	0.67	0.01	0.13	—	0.13	0.13	—	0.13	—	1,807	1,807	0.16	< 0.005	—	1,812

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.24	0.12	2.09	0.89	0.01	0.17	—	0.17	0.17	—	0.17	—	2,657	2,657	0.24	0.01	—	2,664
Apartments Low Rise	0.09	0.05	0.78	0.33	< 0.005	0.06	—	0.06	0.06	—	0.06	—	984	984	0.09	< 0.005	—	987
Single Family Housing	0.66	0.33	5.66	2.41	0.04	0.46	—	0.46	0.46	—	0.46	—	7,179	7,179	0.64	0.01	—	7,199
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.01	0.50	8.60	3.69	0.05	0.70	—	0.70	0.70	—	0.70	—	10,911	10,911	0.97	0.02	—	10,942
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.24	0.12	2.09	0.89	0.01	0.17	—	0.17	0.17	—	0.17	—	2,657	2,657	0.24	0.01	—	2,664
Apartments Low Rise	0.09	0.05	0.78	0.33	< 0.005	0.06	—	0.06	0.06	—	0.06	—	984	984	0.09	< 0.005	—	987
Single Family Housing	0.66	0.33	5.66	2.41	0.04	0.46	—	0.46	0.46	—	0.46	—	7,179	7,179	0.64	0.01	—	7,199
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.01	0.50	8.60	3.69	0.05	0.70	—	0.70	0.70	—	0.70	—	10,911	10,911	0.97	0.02	—	10,942
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.04	0.02	0.38	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	440	440	0.04	< 0.005	—	441

Apartment Low Rise	0.02	0.01	0.14	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	163	163	0.01	< 0.005	—	163
Single Family Housing	0.12	0.06	1.03	0.44	0.01	0.08	—	0.08	0.08	—	0.08	—	1,189	1,189	0.11	< 0.005	—	1,192
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.3
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.18	0.09	1.57	0.67	0.01	0.13	—	0.13	0.13	—	0.13	—	1,807	1,807	0.16	< 0.005	—	1,812

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.32	1.16	19.8	8.44	0.13	1.60	—	1.60	1.60	—	1.60	0.00	25,185	25,185	0.47	0.05	—	25,211
Consumer Products	—	45.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	18.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	7.14	6.75	0.71	77.2	< 0.005	0.04	—	0.04	0.03	—	0.03	—	208	208	0.01	< 0.005	—	208
Total	9.46	71.6	20.6	85.6	0.13	1.64	—	1.64	1.63	—	1.63	0.00	25,392	25,392	0.48	0.05	—	25,419
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.32	1.16	19.8	8.44	0.13	1.60	—	1.60	1.60	—	1.60	0.00	25,185	25,185	0.47	0.05	—	25,211
Consumer Products	—	45.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	18.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.32	64.9	19.8	8.44	0.13	1.60	—	1.60	1.60	—	1.60	0.00	25,185	25,185	0.47	0.05	—	25,211
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.10	0.05	0.81	0.35	0.01	0.07	—	0.07	0.07	—	0.07	0.00	937	937	0.02	< 0.005	—	938
Consumer Products	—	8.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	3.32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.64	0.61	0.06	6.95	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.9	16.9	< 0.005	< 0.005	—	17.0
Total	0.74	12.3	0.88	7.29	0.01	0.07	—	0.07	0.07	—	0.07	0.00	954	954	0.02	< 0.005	—	955

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.32	1.16	19.8	8.44	0.13	1.60	—	1.60	1.60	—	1.60	0.00	25,185	25,185	0.47	0.05	—	25,211
Consumer Products	—	45.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	18.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	7.14	6.75	0.71	77.2	< 0.005	0.04	—	0.04	0.03	—	0.03	—	208	208	0.01	< 0.005	—	208
Total	9.46	71.6	20.6	85.6	0.13	1.64	—	1.64	1.63	—	1.63	0.00	25,392	25,392	0.48	0.05	—	25,419
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.32	1.16	19.8	8.44	0.13	1.60	—	1.60	1.60	—	1.60	0.00	25,185	25,185	0.47	0.05	—	25,211
Consumer Products	—	45.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	18.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.32	64.9	19.8	8.44	0.13	1.60	—	1.60	1.60	—	1.60	0.00	25,185	25,185	0.47	0.05	—	25,211
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.10	0.05	0.81	0.35	0.01	0.07	—	0.07	0.07	—	0.07	0.00	937	937	0.02	< 0.005	—	938
Consumer Products	—	8.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	3.32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.64	0.61	0.06	6.95	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.9	16.9	< 0.005	< 0.005	—	17.0
Total	0.74	12.3	0.88	7.29	0.01	0.07	—	0.07	0.07	—	0.07	0.00	954	954	0.02	< 0.005	—	955

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	21.9	6.36	28.2	2.24	0.05	—	100
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	12.4	3.60	16.0	1.27	0.03	—	56.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	47.2	47.7	94.9	4.84	0.11	—	250
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.38	6.11	0.49	0.01	—	21.7

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	86.2	59.0	145	8.84	0.21	—	429
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	21.9	6.36	28.2	2.24	0.05	—	100
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	12.4	3.60	16.0	1.27	0.03	—	56.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	47.2	47.7	94.9	4.84	0.11	—	250
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.38	6.11	0.49	0.01	—	21.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	86.2	59.0	145	8.84	0.21	—	429

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	3.62	1.05	4.68	0.37	0.01	—	16.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	2.05	0.60	2.65	0.21	< 0.005	—	9.39
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	7.81	7.89	15.7	0.80	0.02	—	41.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.78	0.23	1.01	0.08	< 0.005	—	3.59
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.3	9.77	24.0	1.46	0.03	—	71.0

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	21.9	6.36	28.2	2.24	0.05	—	100
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	12.4	3.60	16.0	1.27	0.03	—	56.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	47.2	47.7	94.9	4.84	0.11	—	250
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.38	6.11	0.49	0.01	—	21.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	86.2	59.0	145	8.84	0.21	—	429
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	21.9	6.36	28.2	2.24	0.05	—	100
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	12.4	3.60	16.0	1.27	0.03	—	56.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	47.2	47.7	94.9	4.84	0.11	—	250

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.38	6.11	0.49	0.01	—	21.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	86.2	59.0	145	8.84	0.21	—	429
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	3.62	1.05	4.68	0.37	0.01	—	16.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	2.05	0.60	2.65	0.21	< 0.005	—	9.39
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	7.81	7.89	15.7	0.80	0.02	—	41.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.78	0.23	1.01	0.08	< 0.005	—	3.59
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.3	9.77	24.0	1.46	0.03	—	71.0

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	142	0.00	142	14.2	0.00	—	498
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	80.5	0.00	80.5	8.04	0.00	—	282
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	231	0.00	231	23.1	0.00	—	809
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	473	0.00	473	47.3	0.00	—	1,656
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	142	0.00	142	14.2	0.00	—	498
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	80.5	0.00	80.5	8.04	0.00	—	282
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	231	0.00	231	23.1	0.00	—	809
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	473	0.00	473	47.3	0.00	—	1,656
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	23.6	0.00	23.6	2.35	0.00	—	82.4
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	13.3	0.00	13.3	1.33	0.00	—	46.6
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	38.3	0.00	38.3	3.83	0.00	—	134
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.12	0.00	3.12	0.31	0.00	—	10.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	78.3	0.00	78.3	7.83	0.00	—	274

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	142	0.00	142	14.2	0.00	—	498
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	80.5	0.00	80.5	8.04	0.00	—	282
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	231	0.00	231	23.1	0.00	—	809
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	473	0.00	473	47.3	0.00	—	1,656
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	142	0.00	142	14.2	0.00	—	498
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	80.5	0.00	80.5	8.04	0.00	—	282
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	231	0.00	231	23.1	0.00	—	809

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.32	0.00	0.32	0.03	0.00	—	1.14
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	473	0.00	473	47.3	0.00	—	1,656
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	23.6	0.00	23.6	2.35	0.00	—	82.4
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	13.3	0.00	13.3	1.33	0.00	—	46.6
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	38.3	0.00	38.3	3.83	0.00	—	134
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.12	0.00	3.12	0.31	0.00	—	10.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.05	0.00	0.05	0.01	0.00	—	0.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	78.3	0.00	78.3	7.83	0.00	—	274

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.71	2.71
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.53	1.53
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.8	10.8
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.2	15.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.71	2.71
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.53	1.53
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.8	10.8
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.2	15.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.45	0.45
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.25	0.25

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.78	1.78
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.52	2.52

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.71	2.71
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.53	1.53
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.8	10.8

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.2	15.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.71	2.71
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.53	1.53
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.8	10.8
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.2	15.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.45	0.45
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.25	0.25
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.78	1.78
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.52	2.52

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	12,023	12,023	12,023	4,388,263	66,975	66,975	66,975	24,445,827

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	12,023	12,023	12,023	4,388,263	66,975	66,975	66,975	24,445,827

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	321
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	182
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	693

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	321
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	182
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	693
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
4240431	1,413,477	50,001	16,667	15,682

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	1,841,821	65.0	0.0000	0.0000	8,289,520
Apartments Low Rise	897,863	65.0	0.0000	0.0000	3,070,225
Single Family Housing	6,564,796	65.0	0.0000	0.0000	22,399,320
Junior High School	0.00	65.0	0.0000	0.0000	0.00
Elementary School	0.00	65.0	0.0000	0.0000	0.00
Strip Mall	290,408	65.0	0.0000	0.0000	287,526
General Office Building	0.00	65.0	0.0000	0.0000	0.00
City Park	0.00	65.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	65.0	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	1,840,061	65.0	0.0000	0.0000	8,289,520
Apartments Low Rise	897,365	65.0	0.0000	0.0000	3,070,225
Single Family Housing	6,560,364	65.0	0.0000	0.0000	22,399,320
Junior High School	0.00	65.0	0.0000	0.0000	0.00
Elementary School	0.00	65.0	0.0000	0.0000	0.00
Strip Mall	290,408	65.0	0.0000	0.0000	287,526
General Office Building	0.00	65.0	0.0000	0.0000	0.00

City Park	0.00	65.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	65.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	11,418,627	0.00
Apartments Low Rise	6,460,960	0.00
Single Family Housing	24,628,412	118,297,250
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	2,469,133	0.00
General Office Building	0.00	0.00
City Park	0.00	167
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	11,418,627	0.00
Apartments Low Rise	6,460,960	0.00
Single Family Housing	24,628,412	118,297,250
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	2,469,133	0.00
General Office Building	0.00	0.00
City Park	0.00	167

Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	264	—
Apartments Low Rise	149	—
Single Family Housing	429	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	35.0	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	264	—
Apartments Low Rise	149	—
Single Family Housing	429	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	35.0	—
General Office Building	0.00	—
City Park	0.60	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9

AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—

Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8

Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team

MV OP 07 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 07
Operational Year	2033
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	408	Dwelling Unit	47.0	432,480	0.00	—	1,036	—

Apartments Low Rise	278	Dwelling Unit	14.0	294,680	0.00	—	706	—
Single Family Housing	880	Dwelling Unit	307	1,716,000	10,307,314	—	2,235	—
Junior High School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	33.3	1000sqft	0.77	33,334	0.00	—	—	—
General Office Building	0.00	1000sqft	0.00	0.00	0.00	—	—	—
City Park	13.0	Acre	13.0	0.00	13.0	13.0	—	—
Other Asphalt Surfaces	11.0	Acre	11.0	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	66.7	136	61.4	387	0.83	3.19	56.3	59.5	3.15	14.3	17.5	658	106,642	107,300	70.4	3.07	127	110,103
Mit.	66.7	136	61.4	387	0.83	3.19	56.3	59.5	3.15	14.3	17.5	658	106,641	107,298	70.4	3.07	127	110,102
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	53.8	123	65.0	283	0.78	3.15	56.3	59.5	3.12	14.3	17.4	658	101,930	102,588	70.9	3.35	20.5	105,379
Mit.	53.8	123	65.0	283	0.78	3.15	56.3	59.5	3.12	14.3	17.4	658	101,929	102,587	70.9	3.35	20.5	105,377
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	55.9	126	45.8	312	0.67	1.70	55.9	57.6	1.67	14.2	15.9	658	79,903	80,561	70.3	3.20	65.0	83,336
Mit.	55.9	126	45.8	312	0.67	1.70	55.9	57.6	1.67	14.2	15.9	658	79,902	80,560	70.3	3.20	65.0	83,335
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.2	23.0	8.36	57.0	0.12	0.31	10.2	10.5	0.31	2.60	2.90	109	13,229	13,338	11.6	0.53	10.8	13,797
Mit.	10.2	23.0	8.36	57.0	0.12	0.31	10.2	10.5	0.31	2.60	2.90	109	13,229	13,338	11.6	0.53	10.8	13,797
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	54.4	51.8	27.2	282	0.61	0.45	56.3	56.8	0.42	14.3	14.7	—	62,144	62,144	2.74	2.74	110	63,139
Area	11.1	83.5	24.2	101	0.15	1.93	—	1.93	1.92	—	1.92	0.00	29,920	29,920	0.57	0.06	—	29,951
Energy	1.17	0.58	10.00	4.29	0.06	0.81	—	0.81	0.81	—	0.81	—	14,516	14,516	1.12	0.02	—	14,551
Water	—	—	—	—	—	—	—	—	—	—	—	101	62.9	164	10.3	0.25	—	495

Waste	—	—	—	—	—	—	—	—	—	—	—	557	0.00	557	55.7	0.00	—	1,949
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.7	17.7
Total	66.7	136	61.4	387	0.83	3.19	56.3	59.5	3.15	14.3	17.5	658	106,642	107,300	70.4	3.07	127	110,103
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	49.9	47.0	31.7	269	0.57	0.45	56.3	56.8	0.42	14.3	14.7	—	57,676	57,676	3.25	3.02	2.84	58,660
Area	2.74	75.6	23.4	9.95	0.15	1.89	—	1.89	1.89	—	1.89	0.00	29,676	29,676	0.56	0.06	—	29,707
Energy	1.17	0.58	10.00	4.29	0.06	0.81	—	0.81	0.81	—	0.81	—	14,516	14,516	1.12	0.02	—	14,551
Water	—	—	—	—	—	—	—	—	—	—	—	101	62.9	164	10.3	0.25	—	495
Waste	—	—	—	—	—	—	—	—	—	—	—	557	0.00	557	55.7	0.00	—	1,949
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.7	17.7
Total	53.8	123	65.0	283	0.78	3.15	56.3	59.5	3.12	14.3	17.4	658	101,930	102,588	70.9	3.35	20.5	105,379
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	50.0	47.2	30.1	261	0.58	0.45	55.9	56.4	0.42	14.2	14.6	—	58,538	58,538	3.04	2.91	47.3	59,529
Area	4.74	78.4	5.66	47.0	0.04	0.45	—	0.45	0.44	—	0.44	0.00	6,787	6,787	0.13	0.01	—	6,794
Energy	1.17	0.58	10.00	4.29	0.06	0.81	—	0.81	0.81	—	0.81	—	14,516	14,516	1.12	0.02	—	14,551
Water	—	—	—	—	—	—	—	—	—	—	—	101	62.9	164	10.3	0.25	—	495
Waste	—	—	—	—	—	—	—	—	—	—	—	557	0.00	557	55.7	0.00	—	1,949
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.7	17.7
Total	55.9	126	45.8	312	0.67	1.70	55.9	57.6	1.67	14.2	15.9	658	79,903	80,561	70.3	3.20	65.0	83,336
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	9.12	8.62	5.50	47.6	0.11	0.08	10.2	10.3	0.08	2.60	2.67	—	9,692	9,692	0.50	0.48	7.83	9,856
Area	0.86	14.3	1.03	8.57	0.01	0.08	—	0.08	0.08	—	0.08	0.00	1,124	1,124	0.02	< 0.005	—	1,125
Energy	0.21	0.11	1.82	0.78	0.01	0.15	—	0.15	0.15	—	0.15	—	2,403	2,403	0.19	< 0.005	—	2,409
Water	—	—	—	—	—	—	—	—	—	—	—	16.7	10.4	27.1	1.71	0.04	—	81.9
Waste	—	—	—	—	—	—	—	—	—	—	—	92.2	0.00	92.2	9.22	0.00	—	323
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.93	2.93

Total	10.2	23.0	8.36	57.0	0.12	0.31	10.2	10.5	0.31	2.60	2.90	109	13,229	13,338	11.6	0.53	10.8	13,797

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	54.4	51.8	27.2	282	0.61	0.45	56.3	56.8	0.42	14.3	14.7	—	62,144	62,144	2.74	2.74	110	63,139
Area	11.1	83.5	24.2	101	0.15	1.93	—	1.93	1.92	—	1.92	0.00	29,920	29,920	0.57	0.06	—	29,951
Energy	1.17	0.58	10.00	4.29	0.06	0.81	—	0.81	0.81	—	0.81	—	14,514	14,514	1.12	0.02	—	14,550
Water	—	—	—	—	—	—	—	—	—	—	—	101	62.9	164	10.3	0.25	—	495
Waste	—	—	—	—	—	—	—	—	—	—	—	557	0.00	557	55.7	0.00	—	1,949
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.7	17.7
Total	66.7	136	61.4	387	0.83	3.19	56.3	59.5	3.15	14.3	17.5	658	106,641	107,298	70.4	3.07	127	110,102
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	49.9	47.0	31.7	269	0.57	0.45	56.3	56.8	0.42	14.3	14.7	—	57,676	57,676	3.25	3.02	2.84	58,660
Area	2.74	75.6	23.4	9.95	0.15	1.89	—	1.89	1.89	—	1.89	0.00	29,676	29,676	0.56	0.06	—	29,707
Energy	1.17	0.58	10.00	4.29	0.06	0.81	—	0.81	0.81	—	0.81	—	14,514	14,514	1.12	0.02	—	14,550
Water	—	—	—	—	—	—	—	—	—	—	—	101	62.9	164	10.3	0.25	—	495
Waste	—	—	—	—	—	—	—	—	—	—	—	557	0.00	557	55.7	0.00	—	1,949
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.7	17.7
Total	53.8	123	65.0	283	0.78	3.15	56.3	59.5	3.12	14.3	17.4	658	101,929	102,587	70.9	3.35	20.5	105,377
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	50.0	47.2	30.1	261	0.58	0.45	55.9	56.4	0.42	14.2	14.6	—	58,538	58,538	3.04	2.91	47.3	59,529
Area	4.74	78.4	5.66	47.0	0.04	0.45	—	0.45	0.44	—	0.44	0.00	6,787	6,787	0.13	0.01	—	6,794

Energy	1.17	0.58	10.00	4.29	0.06	0.81	—	0.81	0.81	—	0.81	—	14,514	14,514	1.12	0.02	—	14,550
Water	—	—	—	—	—	—	—	—	—	—	—	101	62.9	164	10.3	0.25	—	495
Waste	—	—	—	—	—	—	—	—	—	—	—	557	0.00	557	55.7	0.00	—	1,949
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.7	17.7
Total	55.9	126	45.8	312	0.67	1.70	55.9	57.6	1.67	14.2	15.9	658	79,902	80,560	70.3	3.20	65.0	83,335
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	9.12	8.62	5.50	47.6	0.11	0.08	10.2	10.3	0.08	2.60	2.67	—	9,692	9,692	0.50	0.48	7.83	9,856
Area	0.86	14.3	1.03	8.57	0.01	0.08	—	0.08	0.08	—	0.08	0.00	1,124	1,124	0.02	< 0.005	—	1,125
Energy	0.21	0.11	1.82	0.78	0.01	0.15	—	0.15	0.15	—	0.15	—	2,403	2,403	0.19	< 0.005	—	2,409
Water	—	—	—	—	—	—	—	—	—	—	—	16.7	10.4	27.1	1.71	0.04	—	81.9
Waste	—	—	—	—	—	—	—	—	—	—	—	92.2	0.00	92.2	9.22	0.00	—	323
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.93	2.93
Total	10.2	23.0	8.36	57.0	0.12	0.31	10.2	10.5	0.31	2.60	2.90	109	13,229	13,338	11.6	0.53	10.8	13,797

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	346	346	0.00	0.00	—	346
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	203	203	0.00	0.00	—	203
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,233	1,233	0.00	0.00	—	1,233
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	47.7	47.7	0.00	0.00	—	47.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,829	1,829	0.00	0.00	—	1,829
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	346	346	0.00	0.00	—	346
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	203	203	0.00	0.00	—	203

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,233	1,233	0.00	0.00	—	1,233
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	47.7	47.7	0.00	0.00	—	47.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,829	1,829	0.00	0.00	—	1,829
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	57.3	57.3	0.00	0.00	—	57.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	33.6	33.6	0.00	0.00	—	33.6
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	204	204	0.00	0.00	—	204
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	7.90	7.90	0.00	0.00	—	7.90

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	303	303	0.00	0.00	—	303

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	345	345	0.00	0.00	—	345
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	203	203	0.00	0.00	—	203
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,232	1,232	0.00	0.00	—	1,232
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	47.7	47.7	0.00	0.00	—	47.7

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,828	1,828	0.00	0.00	—	1,828
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	345	345	0.00	0.00	—	345
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	203	203	0.00	0.00	—	203
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,232	1,232	0.00	0.00	—	1,232
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	47.7	47.7	0.00	0.00	—	47.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,828	1,828	0.00	0.00	—	1,828

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	57.2	57.2	0.00	0.00	—	57.2
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	33.6	33.6	0.00	0.00	—	33.6
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	204	204	0.00	0.00	—	204
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	7.90	7.90	0.00	0.00	—	7.90
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	303	303	0.00	0.00	—	303

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	0.28	0.14	2.39	1.02	0.02	0.19	—	0.19	0.19	—	0.19	—	3,036	3,036	0.27	0.01	—	3,045
Apartments Low Rise	0.12	0.06	1.07	0.45	0.01	0.09	—	0.09	0.09	—	0.09	—	1,354	1,354	0.12	< 0.005	—	1,358
Single Family Housing	0.76	0.38	6.46	2.75	0.04	0.52	—	0.52	0.52	—	0.52	—	8,204	8,204	0.73	0.02	—	8,227
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.17	0.58	10.00	4.29	0.06	0.81	—	0.81	0.81	—	0.81	—	12,687	12,687	1.12	0.02	—	12,722
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.28	0.14	2.39	1.02	0.02	0.19	—	0.19	0.19	—	0.19	—	3,036	3,036	0.27	0.01	—	3,045
Apartments Low Rise	0.12	0.06	1.07	0.45	0.01	0.09	—	0.09	0.09	—	0.09	—	1,354	1,354	0.12	< 0.005	—	1,358
Single Family Housing	0.76	0.38	6.46	2.75	0.04	0.52	—	0.52	0.52	—	0.52	—	8,204	8,204	0.73	0.02	—	8,227

Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.17	0.58	10.00	4.29	0.06	0.81	—	0.81	0.81	—	0.81	—	12,687	12,687	1.12	0.02	—	12,722
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.05	0.03	0.44	0.19	< 0.005	0.04	—	0.04	0.04	—	0.04	—	503	503	0.04	< 0.005	—	504
Apartments Low Rise	0.02	0.01	0.19	0.08	< 0.005	0.02	—	0.02	0.02	—	0.02	—	224	224	0.02	< 0.005	—	225
Single Family Housing	0.14	0.07	1.18	0.50	0.01	0.10	—	0.10	0.10	—	0.10	—	1,358	1,358	0.12	< 0.005	—	1,362
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.3
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.21	0.11	1.82	0.78	0.01	0.15	—	0.15	0.15	—	0.15	—	2,100	2,100	0.19	< 0.005	—	2,106

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.28	0.14	2.39	1.02	0.02	0.19	—	0.19	0.19	—	0.19	—	3,036	3,036	0.27	0.01	—	3,045
Apartments Low Rise	0.12	0.06	1.07	0.45	0.01	0.09	—	0.09	0.09	—	0.09	—	1,354	1,354	0.12	< 0.005	—	1,358
Single Family Housing	0.76	0.38	6.46	2.75	0.04	0.52	—	0.52	0.52	—	0.52	—	8,204	8,204	0.73	0.02	—	8,227
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.17	0.58	10.00	4.29	0.06	0.81	—	0.81	0.81	—	0.81	—	12,687	12,687	1.12	0.02	—	12,722
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.28	0.14	2.39	1.02	0.02	0.19	—	0.19	0.19	—	0.19	—	3,036	3,036	0.27	0.01	—	3,045
Apartments Low Rise	0.12	0.06	1.07	0.45	0.01	0.09	—	0.09	0.09	—	0.09	—	1,354	1,354	0.12	< 0.005	—	1,358
Single Family Housing	0.76	0.38	6.46	2.75	0.04	0.52	—	0.52	0.52	—	0.52	—	8,204	8,204	0.73	0.02	—	8,227
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.17	0.58	10.00	4.29	0.06	0.81	—	0.81	0.81	—	0.81	—	12,687	12,687	1.12	0.02	—	12,722
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.05	0.03	0.44	0.19	< 0.005	0.04	—	0.04	0.04	—	0.04	—	503	503	0.04	< 0.005	—	504

Apartment Low Rise	0.02	0.01	0.19	0.08	< 0.005	0.02	—	0.02	0.02	—	0.02	—	224	224	0.02	< 0.005	—	225
Single Family Housing	0.14	0.07	1.18	0.50	0.01	0.10	—	0.10	0.10	—	0.10	—	1,358	1,358	0.12	< 0.005	—	1,362
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.3
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.21	0.11	1.82	0.78	0.01	0.15	—	0.15	0.15	—	0.15	—	2,100	2,100	0.19	< 0.005	—	2,106

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.74	1.37	23.4	9.95	0.15	1.89	—	1.89	1.89	—	1.89	0.00	29,676	29,676	0.56	0.06	—	29,707
Consumer Products	—	53.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	21.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	8.36	7.91	0.83	90.7	< 0.005	0.04	—	0.04	0.03	—	0.03	—	244	244	0.01	< 0.005	—	244
Total	11.1	83.5	24.2	101	0.15	1.93	—	1.93	1.92	—	1.92	0.00	29,920	29,920	0.57	0.06	—	29,951
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.74	1.37	23.4	9.95	0.15	1.89	—	1.89	1.89	—	1.89	0.00	29,676	29,676	0.56	0.06	—	29,707
Consumer Products	—	53.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	21.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.74	75.6	23.4	9.95	0.15	1.89	—	1.89	1.89	—	1.89	0.00	29,676	29,676	0.56	0.06	—	29,707
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	0.00	1,104	1,104	0.02	< 0.005	—	1,105
Consumer Products	—	9.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	3.87	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.75	0.71	0.08	8.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.9	19.9	< 0.005	< 0.005	—	20.0
Total	0.86	14.3	1.03	8.57	0.01	0.08	—	0.08	0.08	—	0.08	0.00	1,124	1,124	0.02	< 0.005	—	1,125

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.74	1.37	23.4	9.95	0.15	1.89	—	1.89	1.89	—	1.89	0.00	29,676	29,676	0.56	0.06	—	29,707
Consumer Products	—	53.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	21.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	8.36	7.91	0.83	90.7	< 0.005	0.04	—	0.04	0.03	—	0.03	—	244	244	0.01	< 0.005	—	244
Total	11.1	83.5	24.2	101	0.15	1.93	—	1.93	1.92	—	1.92	0.00	29,920	29,920	0.57	0.06	—	29,951
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2.74	1.37	23.4	9.95	0.15	1.89	—	1.89	1.89	—	1.89	0.00	29,676	29,676	0.56	0.06	—	29,707
Consumer Products	—	53.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	21.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.74	75.6	23.4	9.95	0.15	1.89	—	1.89	1.89	—	1.89	0.00	29,676	29,676	0.56	0.06	—	29,707
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	0.00	1,104	1,104	0.02	< 0.005	—	1,105
Consumer Products	—	9.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	3.87	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.75	0.71	0.08	8.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.9	19.9	< 0.005	< 0.005	—	20.0
Total	0.86	14.3	1.03	8.57	0.01	0.08	—	0.08	0.08	—	0.08	0.00	1,124	1,124	0.02	< 0.005	—	1,125

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	25.0	6.71	31.7	2.56	0.06	—	114
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	17.0	4.57	21.6	1.75	0.04	—	77.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	53.9	50.3	104	5.53	0.13	—	282
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.27	6.00	0.49	0.01	—	21.6

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	101	62.9	164	10.3	0.25	—	495
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	25.0	6.71	31.7	2.56	0.06	—	114
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	17.0	4.57	21.6	1.75	0.04	—	77.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	53.9	50.3	104	5.53	0.13	—	282
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.27	6.00	0.49	0.01	—	21.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	101	62.9	164	10.3	0.25	—	495

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	4.14	1.11	5.25	0.42	0.01	—	18.9
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	2.82	0.76	3.58	0.29	0.01	—	12.9
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	8.93	8.33	17.3	0.92	0.02	—	46.6
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.78	0.21	0.99	0.08	< 0.005	—	3.57
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	16.7	10.4	27.1	1.71	0.04	—	81.9

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	25.0	6.71	31.7	2.56	0.06	—	114
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	17.0	4.57	21.6	1.75	0.04	—	77.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	53.9	50.3	104	5.53	0.13	—	282
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.27	6.00	0.49	0.01	—	21.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	101	62.9	164	10.3	0.25	—	495
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	25.0	6.71	31.7	2.56	0.06	—	114
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	17.0	4.57	21.6	1.75	0.04	—	77.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	53.9	50.3	104	5.53	0.13	—	282

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.27	6.00	0.49	0.01	—	21.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	101	62.9	164	10.3	0.25	—	495
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	4.14	1.11	5.25	0.42	0.01	—	18.9
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	2.82	0.76	3.58	0.29	0.01	—	12.9
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	8.93	8.33	17.3	0.92	0.02	—	46.6
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.78	0.21	0.99	0.08	< 0.005	—	3.57
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	16.7	10.4	27.1	1.71	0.04	—	81.9

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	163	0.00	163	16.2	0.00	—	569
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	111	0.00	111	11.1	0.00	—	388
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	264	0.00	264	26.4	0.00	—	925
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.60	0.00	0.60	0.06	0.00	—	2.11
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	557	0.00	557	55.7	0.00	—	1,949
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	163	0.00	163	16.2	0.00	—	569
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	111	0.00	111	11.1	0.00	—	388
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	264	0.00	264	26.4	0.00	—	925
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.60	0.00	0.60	0.06	0.00	—	2.11
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	557	0.00	557	55.7	0.00	—	1,949
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	26.9	0.00	26.9	2.69	0.00	—	94.1
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	18.3	0.00	18.3	1.83	0.00	—	64.2
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	43.8	0.00	43.8	4.37	0.00	—	153
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.12	0.00	3.12	0.31	0.00	—	10.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.10	0.00	0.10	0.01	0.00	—	0.35
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	92.2	0.00	92.2	9.22	0.00	—	323

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	163	0.00	163	16.2	0.00	—	569
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	111	0.00	111	11.1	0.00	—	388
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	264	0.00	264	26.4	0.00	—	925
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.60	0.00	0.60	0.06	0.00	—	2.11
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	557	0.00	557	55.7	0.00	—	1,949
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	163	0.00	163	16.2	0.00	—	569
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	111	0.00	111	11.1	0.00	—	388
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	264	0.00	264	26.4	0.00	—	925

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.60	0.00	0.60	0.06	0.00	—	2.11
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	557	0.00	557	55.7	0.00	—	1,949
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	26.9	0.00	26.9	2.69	0.00	—	94.1
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	18.3	0.00	18.3	1.83	0.00	—	64.2
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	43.8	0.00	43.8	4.37	0.00	—	153
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.12	0.00	3.12	0.31	0.00	—	10.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	0.10	0.00	0.10	0.01	0.00	—	0.35
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	92.2	0.00	92.2	9.22	0.00	—	323

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.10	3.10
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.11	2.11
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.3	12.3
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.7	17.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.10	3.10
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.11	2.11
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.3	12.3
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.7	17.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.51	0.51
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.03	2.03
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.93	2.93

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.10	3.10
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.11	2.11
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.3	12.3

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.7	17.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.10	3.10
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.11	2.11
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.3	12.3
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17.7	17.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.51	0.51
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.03	2.03
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.93	2.93

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	13,969	13,969	13,969	5,098,713	79,273	79,273	79,273	28,934,515

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	13,969	13,969	13,969	5,098,713	79,273	79,273	79,273	28,934,515

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	367
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	250
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	792

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	367
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	250
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	792
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
4947399	1,649,133	50,001	16,667	28,750

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	2,104,938	60.0	0.0000	0.0000	9,473,738
Apartments Low Rise	1,235,673	60.0	0.0000	0.0000	4,225,359
Single Family Housing	7,502,624	60.0	0.0000	0.0000	25,599,222
Junior High School	0.00	60.0	0.0000	0.0000	0.00
Elementary School	0.00	60.0	0.0000	0.0000	0.00
Strip Mall	290,408	60.0	0.0000	0.0000	287,526
General Office Building	0.00	60.0	0.0000	0.0000	0.00
City Park	0.00	60.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	60.0	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	2,102,927	60.0	0.0000	0.0000	9,473,738
Apartments Low Rise	1,234,987	60.0	0.0000	0.0000	4,225,359
Single Family Housing	7,497,559	60.0	0.0000	0.0000	25,599,222
Junior High School	0.00	60.0	0.0000	0.0000	0.00
Elementary School	0.00	60.0	0.0000	0.0000	0.00
Strip Mall	290,408	60.0	0.0000	0.0000	287,526
General Office Building	0.00	60.0	0.0000	0.0000	0.00

City Park	0.00	60.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	60.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	13,049,860	0.00
Apartments Low Rise	8,891,816	0.00
Single Family Housing	28,146,756	135,196,853
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	2,469,133	0.00
General Office Building	0.00	0.00
City Park	0.00	310
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	13,049,860	0.00
Apartments Low Rise	8,891,816	0.00
Single Family Housing	28,146,756	135,196,853
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	2,469,133	0.00
General Office Building	0.00	0.00
City Park	0.00	310

Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	302	—
Apartments Low Rise	206	—
Single Family Housing	490	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	35.0	—
General Office Building	0.00	—
City Park	1.12	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	302	—
Apartments Low Rise	206	—
Single Family Housing	490	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	35.0	—
General Office Building	0.00	—
City Park	1.12	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9

AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—

Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8

Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team

MV OP 08 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 08
Operational Year	2034
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	459	Dwelling Unit	53.0	486,540	0.00	—	1,166	—

Apartments Low Rise	278	Dwelling Unit	14.0	294,680	0.00	—	706	—
Single Family Housing	990	Dwelling Unit	345	1,930,500	11,595,728	—	2,515	—
Junior High School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	33.3	1000sqft	0.77	33,334	0.00	—	—	—
General Office Building	41.7	1000sqft	0.96	41,667	0.00	—	—	—
City Park	13.0	Acre	13.0	0.00	13.0	13.0	—	—
Other Asphalt Surfaces	11.0	Acre	11.0	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	74.7	153	66.9	426	0.91	3.52	62.5	66.0	3.48	15.9	19.4	756	117,492	118,248	80.8	3.39	126	121,404
Mit.	74.7	153	66.9	426	0.91	3.52	62.5	66.0	3.48	15.9	19.4	756	117,491	118,247	80.8	3.39	126	121,403
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	60.3	138	70.8	311	0.86	3.47	62.5	66.0	3.45	15.9	19.3	756	112,301	113,057	81.4	3.69	22.5	116,214
Mit.	60.3	138	70.8	311	0.86	3.47	62.5	66.0	3.45	15.9	19.3	756	112,300	113,056	81.4	3.69	22.5	116,213
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	62.7	142	49.6	344	0.74	1.88	62.1	64.0	1.85	15.8	17.6	756	88,010	88,766	80.7	3.53	65.7	91,900
Mit.	62.7	142	49.6	344	0.74	1.88	62.1	64.0	1.85	15.8	17.6	756	88,009	88,765	80.7	3.53	65.7	91,898
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.5	25.9	9.05	62.7	0.14	0.34	11.3	11.7	0.34	2.88	3.22	125	14,571	14,696	13.4	0.58	10.9	15,215
Mit.	11.5	25.9	9.05	62.7	0.14	0.34	11.3	11.7	0.34	2.88	3.22	125	14,571	14,696	13.4	0.58	10.9	15,215
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	60.8	58.0	28.7	308	0.67	0.47	62.5	63.0	0.44	15.9	16.3	—	67,956	67,956	3.01	2.99	107	69,029
Area	12.5	93.9	26.7	113	0.17	2.13	—	2.13	2.12	—	2.12	0.00	33,003	33,003	0.63	0.06	—	33,037
Energy	1.33	0.67	11.4	5.03	0.07	0.92	—	0.92	0.92	—	0.92	—	16,466	16,466	1.28	0.03	—	16,506
Water	—	—	—	—	—	—	—	—	—	—	—	125	67.6	192	12.8	0.30	—	603

Waste	—	—	—	—	—	—	—	—	—	—	—	631	0.00	631	63.1	0.00	—	2,209
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19.7	19.7
Total	74.7	153	66.9	426	0.91	3.52	62.5	66.0	3.48	15.9	19.4	756	117,492	118,248	80.8	3.39	126	121,404
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	56.0	52.9	33.6	295	0.62	0.47	62.5	63.0	0.44	15.9	16.3	—	63,040	63,040	3.58	3.30	2.76	64,115
Area	3.02	84.9	25.8	11.0	0.16	2.08	—	2.08	2.08	—	2.08	0.00	32,727	32,727	0.62	0.06	—	32,761
Energy	1.33	0.67	11.4	5.03	0.07	0.92	—	0.92	0.92	—	0.92	—	16,466	16,466	1.28	0.03	—	16,506
Water	—	—	—	—	—	—	—	—	—	—	—	125	67.6	192	12.8	0.30	—	603
Waste	—	—	—	—	—	—	—	—	—	—	—	631	0.00	631	63.1	0.00	—	2,209
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19.7	19.7
Total	60.3	138	70.8	311	0.86	3.47	62.5	66.0	3.45	15.9	19.3	756	112,301	113,057	81.4	3.69	22.5	116,214
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	56.0	53.0	31.9	286	0.63	0.47	62.1	62.6	0.44	15.8	16.2	—	63,988	63,988	3.35	3.18	46.0	65,066
Area	5.37	88.2	6.25	52.6	0.04	0.49	—	0.49	0.49	—	0.49	0.00	7,488	7,488	0.14	0.01	—	7,496
Energy	1.33	0.67	11.4	5.03	0.07	0.92	—	0.92	0.92	—	0.92	—	16,466	16,466	1.28	0.03	—	16,506
Water	—	—	—	—	—	—	—	—	—	—	—	125	67.6	192	12.8	0.30	—	603
Waste	—	—	—	—	—	—	—	—	—	—	—	631	0.00	631	63.1	0.00	—	2,209
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19.7	19.7
Total	62.7	142	49.6	344	0.74	1.88	62.1	64.0	1.85	15.8	17.6	756	88,010	88,766	80.7	3.53	65.7	91,900
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	10.2	9.68	5.82	52.2	0.11	0.09	11.3	11.4	0.08	2.88	2.96	—	10,594	10,594	0.55	0.53	7.62	10,772
Area	0.98	16.1	1.14	9.60	0.01	0.09	—	0.09	0.09	—	0.09	0.00	1,240	1,240	0.02	< 0.005	—	1,241
Energy	0.24	0.12	2.09	0.92	0.01	0.17	—	0.17	0.17	—	0.17	—	2,726	2,726	0.21	< 0.005	—	2,733
Water	—	—	—	—	—	—	—	—	—	—	—	20.7	11.2	31.9	2.12	0.05	—	99.8
Waste	—	—	—	—	—	—	—	—	—	—	—	105	0.00	105	10.4	0.00	—	366
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.27	3.27

Total	11.5	25.9	9.05	62.7	0.14	0.34	11.3	11.7	0.34	2.88	3.22	125	14,571	14,696	13.4	0.58	10.9	15,215

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	60.8	58.0	28.7	308	0.67	0.47	62.5	63.0	0.44	15.9	16.3	—	67,956	67,956	3.01	2.99	107	69,029
Area	12.5	93.9	26.7	113	0.17	2.13	—	2.13	2.12	—	2.12	0.00	33,003	33,003	0.63	0.06	—	33,037
Energy	1.33	0.67	11.4	5.03	0.07	0.92	—	0.92	0.92	—	0.92	—	16,465	16,465	1.28	0.03	—	16,505
Water	—	—	—	—	—	—	—	—	—	—	—	125	67.6	192	12.8	0.30	—	603
Waste	—	—	—	—	—	—	—	—	—	—	—	631	0.00	631	63.1	0.00	—	2,209
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19.7	19.7
Total	74.7	153	66.9	426	0.91	3.52	62.5	66.0	3.48	15.9	19.4	756	117,491	118,247	80.8	3.39	126	121,403
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	56.0	52.9	33.6	295	0.62	0.47	62.5	63.0	0.44	15.9	16.3	—	63,040	63,040	3.58	3.30	2.76	64,115
Area	3.02	84.9	25.8	11.0	0.16	2.08	—	2.08	2.08	—	2.08	0.00	32,727	32,727	0.62	0.06	—	32,761
Energy	1.33	0.67	11.4	5.03	0.07	0.92	—	0.92	0.92	—	0.92	—	16,465	16,465	1.28	0.03	—	16,505
Water	—	—	—	—	—	—	—	—	—	—	—	125	67.6	192	12.8	0.30	—	603
Waste	—	—	—	—	—	—	—	—	—	—	—	631	0.00	631	63.1	0.00	—	2,209
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19.7	19.7
Total	60.3	138	70.8	311	0.86	3.47	62.5	66.0	3.45	15.9	19.3	756	112,300	113,056	81.4	3.69	22.5	116,213
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	56.0	53.0	31.9	286	0.63	0.47	62.1	62.6	0.44	15.8	16.2	—	63,988	63,988	3.35	3.18	46.0	65,066
Area	5.37	88.2	6.25	52.6	0.04	0.49	—	0.49	0.49	—	0.49	0.00	7,488	7,488	0.14	0.01	—	7,496

Energy	1.33	0.67	11.4	5.03	0.07	0.92	—	0.92	0.92	—	0.92	—	16,465	16,465	1.28	0.03	—	16,505
Water	—	—	—	—	—	—	—	—	—	—	—	125	67.6	192	12.8	0.30	—	603
Waste	—	—	—	—	—	—	—	—	—	—	—	631	0.00	631	63.1	0.00	—	2,209
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19.7	19.7
Total	62.7	142	49.6	344	0.74	1.88	62.1	64.0	1.85	15.8	17.6	756	88,009	88,765	80.7	3.53	65.7	91,898
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	10.2	9.68	5.82	52.2	0.11	0.09	11.3	11.4	0.08	2.88	2.96	—	10,594	10,594	0.55	0.53	7.62	10,772
Area	0.98	16.1	1.14	9.60	0.01	0.09	—	0.09	0.09	—	0.09	0.00	1,240	1,240	0.02	< 0.005	—	1,241
Energy	0.24	0.12	2.09	0.92	0.01	0.17	—	0.17	0.17	—	0.17	—	2,726	2,726	0.21	< 0.005	—	2,733
Water	—	—	—	—	—	—	—	—	—	—	—	20.7	11.2	31.9	2.12	0.05	—	99.8
Waste	—	—	—	—	—	—	—	—	—	—	—	105	0.00	105	10.4	0.00	—	366
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.27	3.27
Total	11.5	25.9	9.05	62.7	0.14	0.34	11.3	11.7	0.34	2.88	3.22	125	14,571	14,696	13.4	0.58	10.9	15,215

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	357	357	0.00	0.00	—	357
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	186	186	0.00	0.00	—	186
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,271	1,271	0.00	0.00	—	1,271
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	43.7	43.7	0.00	0.00	—	43.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	131	131	0.00	0.00	—	131
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,989	1,989	0.00	0.00	—	1,989
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	357	357	0.00	0.00	—	357
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	186	186	0.00	0.00	—	186

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,271	1,271	0.00	0.00	—	1,271
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	43.7	43.7	0.00	0.00	—	43.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	131	131	0.00	0.00	—	131
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,989	1,989	0.00	0.00	—	1,989
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	59.0	59.0	0.00	0.00	—	59.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	30.8	30.8	0.00	0.00	—	30.8
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	210	210	0.00	0.00	—	210
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	7.24	7.24	0.00	0.00	—	7.24

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	21.7	21.7	0.00	0.00	—	21.7
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	329	329	0.00	0.00	—	329

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	356	356	0.00	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	186	186	0.00	0.00	—	186
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,270	1,270	0.00	0.00	—	1,270
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	43.7	43.7	0.00	0.00	—	43.7

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	131	131	0.00	0.00	—	131
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,987	1,987	0.00	0.00	—	1,987
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	356	356	0.00	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	186	186	0.00	0.00	—	186
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,270	1,270	0.00	0.00	—	1,270
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	43.7	43.7	0.00	0.00	—	43.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	131	131	0.00	0.00	—	131
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,987	1,987	0.00	0.00	—	1,987

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	59.0	59.0	0.00	0.00	—	59.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	30.8	30.8	0.00	0.00	—	30.8
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	210	210	0.00	0.00	—	210
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	7.24	7.24	0.00	0.00	—	7.24
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	21.7	21.7	0.00	0.00	—	21.7
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	329	329	0.00	0.00	—	329

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	0.31	0.16	2.69	1.15	0.02	0.22	—	0.22	0.22	—	0.22	—	3,416	3,416	0.30	0.01	—	3,425
Apartments Low Rise	0.12	0.06	1.07	0.45	0.01	0.09	—	0.09	0.09	—	0.09	—	1,354	1,354	0.12	< 0.005	—	1,358
Single Family Housing	0.85	0.43	7.27	3.09	0.05	0.59	—	0.59	0.59	—	0.59	—	9,230	9,230	0.82	0.02	—	9,255
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	386	386	0.03	< 0.005	—	387
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.33	0.67	11.4	5.03	0.07	0.92	—	0.92	0.92	—	0.92	—	14,477	14,477	1.28	0.03	—	14,517
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.31	0.16	2.69	1.15	0.02	0.22	—	0.22	0.22	—	0.22	—	3,416	3,416	0.30	0.01	—	3,425
Apartments Low Rise	0.12	0.06	1.07	0.45	0.01	0.09	—	0.09	0.09	—	0.09	—	1,354	1,354	0.12	< 0.005	—	1,358
Single Family Housing	0.85	0.43	7.27	3.09	0.05	0.59	—	0.59	0.59	—	0.59	—	9,230	9,230	0.82	0.02	—	9,255

Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	386	386	0.03	< 0.005	—	387
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.33	0.67	11.4	5.03	0.07	0.92	—	0.92	0.92	—	0.92	—	14,477	14,477	1.28	0.03	—	14,517
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.06	0.03	0.49	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	566	566	0.05	< 0.005	—	567
Apartments Low Rise	0.02	0.01	0.19	0.08	< 0.005	0.02	—	0.02	0.02	—	0.02	—	224	224	0.02	< 0.005	—	225
Single Family Housing	0.16	0.08	1.33	0.56	0.01	0.11	—	0.11	0.11	—	0.11	—	1,528	1,528	0.14	< 0.005	—	1,532
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.3
General Office Building	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	63.8	63.8	0.01	< 0.005	—	64.0

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.24	0.12	2.09	0.92	0.01	0.17	—	0.17	0.17	—	0.17	—	2,397	2,397	0.21	< 0.005	—	2,404

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.31	0.16	2.69	1.15	0.02	0.22	—	0.22	0.22	—	0.22	—	3,416	3,416	0.30	0.01	—	3,425
Apartments Low Rise	0.12	0.06	1.07	0.45	0.01	0.09	—	0.09	0.09	—	0.09	—	1,354	1,354	0.12	< 0.005	—	1,358
Single Family Housing	0.85	0.43	7.27	3.09	0.05	0.59	—	0.59	0.59	—	0.59	—	9,230	9,230	0.82	0.02	—	9,255
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	386	386	0.03	< 0.005	—	387
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.33	0.67	11.4	5.03	0.07	0.92	—	0.92	0.92	—	0.92	—	14,477	14,477	1.28	0.03	—	14,517
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.31	0.16	2.69	1.15	0.02	0.22	—	0.22	0.22	—	0.22	—	3,416	3,416	0.30	0.01	—	3,425
Apartments Low Rise	0.12	0.06	1.07	0.45	0.01	0.09	—	0.09	0.09	—	0.09	—	1,354	1,354	0.12	< 0.005	—	1,358
Single Family Housing	0.85	0.43	7.27	3.09	0.05	0.59	—	0.59	0.59	—	0.59	—	9,230	9,230	0.82	0.02	—	9,255
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	386	386	0.03	< 0.005	—	387
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.33	0.67	11.4	5.03	0.07	0.92	—	0.92	0.92	—	0.92	—	14,477	14,477	1.28	0.03	—	14,517
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.06	0.03	0.49	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	566	566	0.05	< 0.005	—	567

Apartment Low Rise	0.02	0.01	0.19	0.08	< 0.005	0.02	—	0.02	0.02	—	0.02	—	224	224	0.02	< 0.005	—	225
Single Family Housing	0.16	0.08	1.33	0.56	0.01	0.11	—	0.11	0.11	—	0.11	—	1,528	1,528	0.14	< 0.005	—	1,532
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.3
General Office Building	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	63.8	63.8	0.01	< 0.005	—	64.0
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.24	0.12	2.09	0.92	0.01	0.17	—	0.17	0.17	—	0.17	—	2,397	2,397	0.21	< 0.005	—	2,404

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3.02	1.51	25.8	11.0	0.16	2.08	—	2.08	2.08	—	2.08	0.00	32,727	32,727	0.62	0.06	—	32,761
Consumer Products	—	59.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	23.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	9.52	9.00	0.93	102	< 0.005	0.05	—	0.05	0.04	—	0.04	—	275	275	0.01	< 0.005	—	276
Total	12.5	93.9	26.7	113	0.17	2.13	—	2.13	2.12	—	2.12	0.00	33,003	33,003	0.63	0.06	—	33,037
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3.02	1.51	25.8	11.0	0.16	2.08	—	2.08	2.08	—	2.08	0.00	32,727	32,727	0.62	0.06	—	32,761
Consumer Products	—	59.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	23.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	3.02	84.9	25.8	11.0	0.16	2.08	—	2.08	2.08	—	2.08	0.00	32,727	32,727	0.62	0.06	—	32,761
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.12	0.06	1.06	0.45	0.01	0.09	—	0.09	0.09	—	0.09	0.00	1,217	1,217	0.02	< 0.005	—	1,219
Consumer Products	—	10.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	4.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.86	0.81	0.08	9.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.5	22.5	< 0.005	< 0.005	—	22.6
Total	0.98	16.1	1.14	9.60	0.01	0.09	—	0.09	0.09	—	0.09	0.00	1,240	1,240	0.02	< 0.005	—	1,241

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3.02	1.51	25.8	11.0	0.16	2.08	—	2.08	2.08	—	2.08	0.00	32,727	32,727	0.62	0.06	—	32,761
Consumer Products	—	59.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	23.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	9.52	9.00	0.93	102	< 0.005	0.05	—	0.05	0.04	—	0.04	—	275	275	0.01	< 0.005	—	276
Total	12.5	93.9	26.7	113	0.17	2.13	—	2.13	2.12	—	2.12	0.00	33,003	33,003	0.63	0.06	—	33,037
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3.02	1.51	25.8	11.0	0.16	2.08	—	2.08	2.08	—	2.08	0.00	32,727	32,727	0.62	0.06	—	32,761
Consumer Products	—	59.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	23.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	3.02	84.9	25.8	11.0	0.16	2.08	—	2.08	2.08	—	2.08	0.00	32,727	32,727	0.62	0.06	—	32,761
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.12	0.06	1.06	0.45	0.01	0.09	—	0.09	0.09	—	0.09	0.00	1,217	1,217	0.02	< 0.005	—	1,219
Consumer Products	—	10.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	4.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.86	0.81	0.08	9.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.5	22.5	< 0.005	< 0.005	—	22.6
Total	0.98	16.1	1.14	9.60	0.01	0.09	—	0.09	0.09	—	0.09	0.00	1,240	1,240	0.02	< 0.005	—	1,241

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	28.1	6.92	35.1	2.88	0.07	—	128
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	17.0	4.19	21.2	1.75	0.04	—	77.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	60.7	51.9	113	6.22	0.15	—	312
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.16	5.90	0.49	0.01	—	21.5

General Office Building	—	—	—	—	—	—	—	—	—	—	—	14.2	3.49	17.7	1.46	0.03	—	64.4
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	125	67.6	192	12.8	0.30	—	603
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	28.1	6.92	35.1	2.88	0.07	—	128
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	17.0	4.19	21.2	1.75	0.04	—	77.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	60.7	51.9	113	6.22	0.15	—	312
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.16	5.90	0.49	0.01	—	21.5
General Office Building	—	—	—	—	—	—	—	—	—	—	—	14.2	3.49	17.7	1.46	0.03	—	64.4
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	125	67.6	192	12.8	0.30	—	603

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	4.66	1.15	5.80	0.48	0.01	—	21.1
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	2.82	0.69	3.52	0.29	0.01	—	12.8
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	10.0	8.59	18.6	1.03	0.02	—	51.7
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.78	0.19	0.98	0.08	< 0.005	—	3.55
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.35	0.58	2.93	0.24	0.01	—	10.7
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	20.7	11.2	31.9	2.12	0.05	—	99.8

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	28.1	6.92	35.1	2.88	0.07	—	128
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	17.0	4.19	21.2	1.75	0.04	—	77.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	60.7	51.9	113	6.22	0.15	—	312
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.16	5.90	0.49	0.01	—	21.5
General Office Building	—	—	—	—	—	—	—	—	—	—	—	14.2	3.49	17.7	1.46	0.03	—	64.4
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	125	67.6	192	12.8	0.30	—	603
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	28.1	6.92	35.1	2.88	0.07	—	128
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	17.0	4.19	21.2	1.75	0.04	—	77.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	60.7	51.9	113	6.22	0.15	—	312

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.16	5.90	0.49	0.01	—	21.5
General Office Building	—	—	—	—	—	—	—	—	—	—	—	14.2	3.49	17.7	1.46	0.03	—	64.4
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	125	67.6	192	12.8	0.30	—	603
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	4.66	1.15	5.80	0.48	0.01	—	21.1
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	2.82	0.69	3.52	0.29	0.01	—	12.8
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	10.0	8.59	18.6	1.03	0.02	—	51.7
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.78	0.19	0.98	0.08	< 0.005	—	3.55
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.35	0.58	2.93	0.24	0.01	—	10.7

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	20.7	11.2	31.9	2.12	0.05	—	99.8

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	183	0.00	183	18.3	0.00	—	640
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	111	0.00	111	11.1	0.00	—	388
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	297	0.00	297	29.7	0.00	—	1,040
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	20.9	0.00	20.9	2.09	0.00	—	73.1

City Park	—	—	—	—	—	—	—	—	—	—	—	0.60	0.00	0.60	0.06	0.00	—	2.11
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	631	0.00	631	63.1	0.00	—	2,209
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	183	0.00	183	18.3	0.00	—	640
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	111	0.00	111	11.1	0.00	—	388
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	297	0.00	297	29.7	0.00	—	1,040
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	20.9	0.00	20.9	2.09	0.00	—	73.1
City Park	—	—	—	—	—	—	—	—	—	—	—	0.60	0.00	0.60	0.06	0.00	—	2.11
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	631	0.00	631	63.1	0.00	—	2,209
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	30.3	0.00	30.3	3.03	0.00	—	106
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	18.3	0.00	18.3	1.83	0.00	—	64.2
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	49.2	0.00	49.2	4.92	0.00	—	172
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.12	0.00	3.12	0.31	0.00	—	10.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	3.46	0.00	3.46	0.35	0.00	—	12.1
City Park	—	—	—	—	—	—	—	—	—	—	—	0.10	0.00	0.10	0.01	0.00	—	0.35
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	105	0.00	105	10.4	0.00	—	366

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	183	0.00	183	18.3	0.00	—	640
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	111	0.00	111	11.1	0.00	—	388
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	297	0.00	297	29.7	0.00	—	1,040
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	20.9	0.00	20.9	2.09	0.00	—	73.1
City Park	—	—	—	—	—	—	—	—	—	—	—	0.60	0.00	0.60	0.06	0.00	—	2.11
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	631	0.00	631	63.1	0.00	—	2,209
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	183	0.00	183	18.3	0.00	—	640
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	111	0.00	111	11.1	0.00	—	388
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	297	0.00	297	29.7	0.00	—	1,040

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	20.9	0.00	20.9	2.09	0.00	—	73.1
City Park	—	—	—	—	—	—	—	—	—	—	—	0.60	0.00	0.60	0.06	0.00	—	2.11
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	631	0.00	631	63.1	0.00	—	2,209
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	30.3	0.00	30.3	3.03	0.00	—	106
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	18.3	0.00	18.3	1.83	0.00	—	64.2
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	49.2	0.00	49.2	4.92	0.00	—	172
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.12	0.00	3.12	0.31	0.00	—	10.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	3.46	0.00	3.46	0.35	0.00	—	12.1

City Park	—	—	—	—	—	—	—	—	—	—	—	0.10	0.00	0.10	0.01	0.00	—	0.35
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	105	0.00	105	10.4	0.00	—	366

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.48	3.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.11	2.11
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.8	13.8
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10

City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19.7	19.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.48	3.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.11	2.11
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.8	13.8
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19.7	19.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.58	0.58
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.29	2.29
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.27	3.27

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.48	3.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.11	2.11
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.8	13.8

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19.7	19.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.48	3.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.11	2.11
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.8	13.8
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19.7	19.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.58	0.58
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.29	2.29
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.27	3.27

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	16,359	16,359	16,359	5,971,155	88,044	88,044	88,044	32,135,893

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	16,359	16,359	16,359	5,971,155	88,044	88,044	88,044	32,135,893

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	413
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	250
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	891

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	413
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	250
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	891
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
5491233	1,830,411	112,502	37,501	28,750

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	2,368,056	55.0	0.0000	0.0000	10,657,955
Apartments Low Rise	1,235,673	55.0	0.0000	0.0000	4,225,359
Single Family Housing	8,440,452	55.0	0.0000	0.0000	28,799,125
Junior High School	0.00	55.0	0.0000	0.0000	0.00
Elementary School	0.00	55.0	0.0000	0.0000	0.00
Strip Mall	290,408	55.0	0.0000	0.0000	287,526
General Office Building	872,063	55.0	0.0000	0.0000	1,202,885
City Park	0.00	55.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	55.0	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	2,365,793	55.0	0.0000	0.0000	10,657,955
Apartments Low Rise	1,234,987	55.0	0.0000	0.0000	4,225,359
Single Family Housing	8,434,754	55.0	0.0000	0.0000	28,799,125
Junior High School	0.00	55.0	0.0000	0.0000	0.00
Elementary School	0.00	55.0	0.0000	0.0000	0.00
Strip Mall	290,408	55.0	0.0000	0.0000	287,526
General Office Building	872,063	55.0	0.0000	0.0000	1,202,885

City Park	0.00	55.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	55.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	14,681,092	0.00
Apartments Low Rise	8,891,816	0.00
Single Family Housing	31,665,101	152,096,456
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	2,469,133	0.00
General Office Building	7,405,632	0.00
City Park	0.00	310
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	14,681,092	0.00
Apartments Low Rise	8,891,816	0.00
Single Family Housing	31,665,101	152,096,456
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	2,469,133	0.00
General Office Building	7,405,632	0.00
City Park	0.00	310

Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	339	—
Apartments Low Rise	206	—
Single Family Housing	552	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	35.0	—
General Office Building	38.8	—
City Park	1.12	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	339	—
Apartments Low Rise	206	—
Single Family Housing	552	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	35.0	—
General Office Building	38.8	—
City Park	1.12	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9

AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—

Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8

Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team

MV OP 09 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 09
Operational Year	2035
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	510	Dwelling Unit	59.0	540,600	0.00	—	1,295	—

Apartments Low Rise	341	Dwelling Unit	17.0	361,460	0.00	—	866	—
Single Family Housing	1,100	Dwelling Unit	384	2,145,000	12,884,143	—	2,794	—
Junior High School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	33.3	1000sqft	0.77	33,334	0.00	—	—	—
General Office Building	83.3	1000sqft	1.91	83,334	0.00	—	—	—
City Park	13.0	Acre	13.0	0.00	13.0	13.0	—	—
Other Asphalt Surfaces	11.0	Acre	11.0	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	84.5	173	74.4	479	1.03	3.96	71.3	75.3	3.92	18.1	22.0	883	132,467	133,351	94.2	3.81	129	136,969
Mit.	84.5	173	74.4	479	1.03	3.96	71.3	75.3	3.92	18.1	22.0	883	132,466	133,349	94.2	3.81	129	136,968
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	68.1	157	78.6	348	0.97	3.90	71.3	75.2	3.87	18.1	22.0	883	126,582	127,466	94.8	4.15	25.0	131,100
Mit.	68.1	157	78.6	348	0.97	3.90	71.3	75.2	3.87	18.1	22.0	883	126,581	127,464	94.8	4.15	25.0	131,098
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	71.0	161	54.7	386	0.83	2.11	70.9	73.0	2.07	18.0	20.1	883	99,147	100,030	94.0	3.97	68.1	103,631
Mit.	71.0	161	54.7	386	0.83	2.11	70.9	73.0	2.07	18.0	20.1	883	99,145	100,029	94.0	3.97	68.1	103,630
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.0	29.4	9.98	70.5	0.15	0.38	12.9	13.3	0.38	3.29	3.66	146	16,415	16,561	15.6	0.66	11.3	17,157
Mit.	13.0	29.4	9.98	70.5	0.15	0.38	12.9	13.3	0.38	3.29	3.66	146	16,415	16,561	15.6	0.66	11.3	17,157
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	68.5	65.4	31.1	345	0.75	0.49	71.3	71.8	0.46	18.1	18.6	—	76,402	76,402	3.36	3.33	106	77,586
Area	14.4	107	30.2	129	0.19	2.41	—	2.41	2.40	—	2.40	0.00	37,289	37,289	0.71	0.07	—	37,328
Energy	1.53	0.76	13.1	5.87	0.08	1.06	—	1.06	1.06	—	1.06	—	18,705	18,705	1.47	0.03	—	18,751
Water	—	—	—	—	—	—	—	—	—	—	—	153	71.5	224	15.7	0.37	—	726

Waste	—	—	—	—	—	—	—	—	—	—	—	731	0.00	731	73.0	0.00	—	2,556
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22.2	22.2
Total	84.5	173	74.4	479	1.03	3.96	71.3	75.3	3.92	18.1	22.0	883	132,467	133,351	94.2	3.81	129	136,969
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	63.2	59.8	36.4	330	0.70	0.49	71.3	71.8	0.46	18.1	18.6	—	70,834	70,834	4.00	3.68	2.76	72,034
Area	3.41	96.3	29.1	12.4	0.19	2.35	—	2.35	2.35	—	2.35	0.00	36,972	36,972	0.70	0.07	—	37,010
Energy	1.53	0.76	13.1	5.87	0.08	1.06	—	1.06	1.06	—	1.06	—	18,705	18,705	1.47	0.03	—	18,751
Water	—	—	—	—	—	—	—	—	—	—	—	153	71.5	224	15.7	0.37	—	726
Waste	—	—	—	—	—	—	—	—	—	—	—	731	0.00	731	73.0	0.00	—	2,556
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22.2	22.2
Total	68.1	157	78.6	348	0.97	3.90	71.3	75.2	3.87	18.1	22.0	883	126,582	127,466	94.8	4.15	25.0	131,100
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	63.2	59.9	34.5	320	0.71	0.49	70.9	71.4	0.46	18.0	18.5	—	71,908	71,908	3.74	3.55	45.9	73,104
Area	6.20	100	7.07	60.1	0.04	0.56	—	0.56	0.55	—	0.55	0.00	8,462	8,462	0.16	0.02	—	8,471
Energy	1.53	0.76	13.1	5.87	0.08	1.06	—	1.06	1.06	—	1.06	—	18,705	18,705	1.47	0.03	—	18,751
Water	—	—	—	—	—	—	—	—	—	—	—	153	71.5	224	15.7	0.37	—	726
Waste	—	—	—	—	—	—	—	—	—	—	—	731	0.00	731	73.0	0.00	—	2,556
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22.2	22.2
Total	71.0	161	54.7	386	0.83	2.11	70.9	73.0	2.07	18.0	20.1	883	99,147	100,030	94.0	3.97	68.1	103,631
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.5	10.9	6.30	58.4	0.13	0.09	12.9	13.0	0.08	3.29	3.37	—	11,905	11,905	0.62	0.59	7.60	12,103
Area	1.13	18.3	1.29	11.0	0.01	0.10	—	0.10	0.10	—	0.10	0.00	1,401	1,401	0.03	< 0.005	—	1,403
Energy	0.28	0.14	2.39	1.07	0.02	0.19	—	0.19	0.19	—	0.19	—	3,097	3,097	0.24	0.01	—	3,104
Water	—	—	—	—	—	—	—	—	—	—	—	25.3	11.8	37.1	2.59	0.06	—	120
Waste	—	—	—	—	—	—	—	—	—	—	—	121	0.00	121	12.1	0.00	—	423
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.68	3.68

Total	13.0	29.4	9.98	70.5	0.15	0.38	12.9	13.3	0.38	3.29	3.66	146	16,415	16,561	15.6	0.66	11.3	17,157

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	68.5	65.4	31.1	345	0.75	0.49	71.3	71.8	0.46	18.1	18.6	—	76,402	76,402	3.36	3.33	106	77,586
Area	14.4	107	30.2	129	0.19	2.41	—	2.41	2.40	—	2.40	0.00	37,289	37,289	0.71	0.07	—	37,328
Energy	1.53	0.76	13.1	5.87	0.08	1.06	—	1.06	1.06	—	1.06	—	18,703	18,703	1.47	0.03	—	18,749
Water	—	—	—	—	—	—	—	—	—	—	—	153	71.5	224	15.7	0.37	—	726
Waste	—	—	—	—	—	—	—	—	—	—	—	731	0.00	731	73.0	0.00	—	2,556
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22.2	22.2
Total	84.5	173	74.4	479	1.03	3.96	71.3	75.3	3.92	18.1	22.0	883	132,466	133,349	94.2	3.81	129	136,968
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	63.2	59.8	36.4	330	0.70	0.49	71.3	71.8	0.46	18.1	18.6	—	70,834	70,834	4.00	3.68	2.76	72,034
Area	3.41	96.3	29.1	12.4	0.19	2.35	—	2.35	2.35	—	2.35	0.00	36,972	36,972	0.70	0.07	—	37,010
Energy	1.53	0.76	13.1	5.87	0.08	1.06	—	1.06	1.06	—	1.06	—	18,703	18,703	1.47	0.03	—	18,749
Water	—	—	—	—	—	—	—	—	—	—	—	153	71.5	224	15.7	0.37	—	726
Waste	—	—	—	—	—	—	—	—	—	—	—	731	0.00	731	73.0	0.00	—	2,556
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22.2	22.2
Total	68.1	157	78.6	348	0.97	3.90	71.3	75.2	3.87	18.1	22.0	883	126,581	127,464	94.8	4.15	25.0	131,098
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	63.2	59.9	34.5	320	0.71	0.49	70.9	71.4	0.46	18.0	18.5	—	71,908	71,908	3.74	3.55	45.9	73,104
Area	6.20	100	7.07	60.1	0.04	0.56	—	0.56	0.55	—	0.55	0.00	8,462	8,462	0.16	0.02	—	8,471

Energy	1.53	0.76	13.1	5.87	0.08	1.06	—	1.06	1.06	—	1.06	—	18,703	18,703	1.47	0.03	—	18,749
Water	—	—	—	—	—	—	—	—	—	—	—	153	71.5	224	15.7	0.37	—	726
Waste	—	—	—	—	—	—	—	—	—	—	—	731	0.00	731	73.0	0.00	—	2,556
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22.2	22.2
Total	71.0	161	54.7	386	0.83	2.11	70.9	73.0	2.07	18.0	20.1	883	99,145	100,029	94.0	3.97	68.1	103,630
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.5	10.9	6.30	58.4	0.13	0.09	12.9	13.0	0.08	3.29	3.37	—	11,905	11,905	0.62	0.59	7.60	12,103
Area	1.13	18.3	1.29	11.0	0.01	0.10	—	0.10	0.10	—	0.10	0.00	1,401	1,401	0.03	< 0.005	—	1,403
Energy	0.28	0.14	2.39	1.07	0.02	0.19	—	0.19	0.19	—	0.19	—	3,097	3,097	0.24	0.01	—	3,104
Water	—	—	—	—	—	—	—	—	—	—	—	25.3	11.8	37.1	2.59	0.06	—	120
Waste	—	—	—	—	—	—	—	—	—	—	—	121	0.00	121	12.1	0.00	—	423
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.68	3.68
Total	13.0	29.4	9.98	70.5	0.15	0.38	12.9	13.3	0.38	3.29	3.66	146	16,415	16,561	15.6	0.66	11.3	17,157

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	360	360	0.00	0.00	—	360
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	207	207	0.00	0.00	—	207
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,284	1,284	0.00	0.00	—	1,284
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	39.8	39.8	0.00	0.00	—	39.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	239	239	0.00	0.00	—	239
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,130	2,130	0.00	0.00	—	2,130
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	360	360	0.00	0.00	—	360
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	207	207	0.00	0.00	—	207

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,284	1,284	0.00	0.00	—	1,284
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	39.8	39.8	0.00	0.00	—	39.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	239	239	0.00	0.00	—	239
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,130	2,130	0.00	0.00	—	2,130
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	59.6	59.6	0.00	0.00	—	59.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	34.4	34.4	0.00	0.00	—	34.4
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	213	213	0.00	0.00	—	213
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	6.58	6.58	0.00	0.00	—	6.58

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	39.5	39.5	0.00	0.00	—	39.5
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	353	353	0.00	0.00	—	353

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	360	360	0.00	0.00	—	360
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	207	207	0.00	0.00	—	207
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,283	1,283	0.00	0.00	—	1,283
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	39.8	39.8	0.00	0.00	—	39.8

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	239	239	0.00	0.00	—	239
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,129	2,129	0.00	0.00	—	2,129
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	360	360	0.00	0.00	—	360
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	207	207	0.00	0.00	—	207
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,283	1,283	0.00	0.00	—	1,283
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	39.8	39.8	0.00	0.00	—	39.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	239	239	0.00	0.00	—	239
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,129	2,129	0.00	0.00	—	2,129

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	59.6	59.6	0.00	0.00	—	59.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	34.3	34.3	0.00	0.00	—	34.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	212	212	0.00	0.00	—	212
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	6.58	6.58	0.00	0.00	—	6.58
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	39.5	39.5	0.00	0.00	—	39.5
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	352	352	0.00	0.00	—	352

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	0.35	0.17	2.99	1.27	0.02	0.24	—	0.24	0.24	—	0.24	—	3,795	3,795	0.34	0.01	—	3,806
Apartments Low Rise	0.15	0.08	1.31	0.56	0.01	0.11	—	0.11	0.11	—	0.11	—	1,661	1,661	0.15	< 0.005	—	1,666
Single Family Housing	0.95	0.47	8.08	3.44	0.05	0.65	—	0.65	0.65	—	0.65	—	10,255	10,255	0.91	0.02	—	10,284
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.07	0.04	0.65	0.54	< 0.005	0.05	—	0.05	0.05	—	0.05	—	771	771	0.07	< 0.005	—	773
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.53	0.76	13.1	5.87	0.08	1.06	—	1.06	1.06	—	1.06	—	16,575	16,575	1.47	0.03	—	16,621
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.35	0.17	2.99	1.27	0.02	0.24	—	0.24	0.24	—	0.24	—	3,795	3,795	0.34	0.01	—	3,806
Apartments Low Rise	0.15	0.08	1.31	0.56	0.01	0.11	—	0.11	0.11	—	0.11	—	1,661	1,661	0.15	< 0.005	—	1,666
Single Family Housing	0.95	0.47	8.08	3.44	0.05	0.65	—	0.65	0.65	—	0.65	—	10,255	10,255	0.91	0.02	—	10,284

Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.07	0.04	0.65	0.54	< 0.005	0.05	—	0.05	0.05	—	0.05	—	771	771	0.07	< 0.005	—	773
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.53	0.76	13.1	5.87	0.08	1.06	—	1.06	1.06	—	1.06	—	16,575	16,575	1.47	0.03	—	16,621
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.06	0.03	0.55	0.23	< 0.005	0.04	—	0.04	0.04	—	0.04	—	628	628	0.06	< 0.005	—	630
Apartments Low Rise	0.03	0.01	0.24	0.10	< 0.005	0.02	—	0.02	0.02	—	0.02	—	275	275	0.02	< 0.005	—	276
Single Family Housing	0.17	0.09	1.47	0.63	0.01	0.12	—	0.12	0.12	—	0.12	—	1,698	1,698	0.15	< 0.005	—	1,703
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.3
General Office Building	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	128

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.28	0.14	2.39	1.07	0.02	0.19	—	0.19	0.19	—	0.19	—	2,744	2,744	0.24	0.01	—	2,752

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.35	0.17	2.99	1.27	0.02	0.24	—	0.24	0.24	—	0.24	—	3,795	3,795	0.34	0.01	—	3,806
Apartments Low Rise	0.15	0.08	1.31	0.56	0.01	0.11	—	0.11	0.11	—	0.11	—	1,661	1,661	0.15	< 0.005	—	1,666
Single Family Housing	0.95	0.47	8.08	3.44	0.05	0.65	—	0.65	0.65	—	0.65	—	10,255	10,255	0.91	0.02	—	10,284
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.07	0.04	0.65	0.54	< 0.005	0.05	—	0.05	0.05	—	0.05	—	771	771	0.07	< 0.005	—	773
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.53	0.76	13.1	5.87	0.08	1.06	—	1.06	1.06	—	1.06	—	16,575	16,575	1.47	0.03	—	16,621
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.35	0.17	2.99	1.27	0.02	0.24	—	0.24	0.24	—	0.24	—	3,795	3,795	0.34	0.01	—	3,806
Apartments Low Rise	0.15	0.08	1.31	0.56	0.01	0.11	—	0.11	0.11	—	0.11	—	1,661	1,661	0.15	< 0.005	—	1,666
Single Family Housing	0.95	0.47	8.08	3.44	0.05	0.65	—	0.65	0.65	—	0.65	—	10,255	10,255	0.91	0.02	—	10,284
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.1	92.1	0.01	< 0.005	—	92.4
General Office Building	0.07	0.04	0.65	0.54	< 0.005	0.05	—	0.05	0.05	—	0.05	—	771	771	0.07	< 0.005	—	773
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.53	0.76	13.1	5.87	0.08	1.06	—	1.06	1.06	—	1.06	—	16,575	16,575	1.47	0.03	—	16,621
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.06	0.03	0.55	0.23	< 0.005	0.04	—	0.04	0.04	—	0.04	—	628	628	0.06	< 0.005	—	630

Apartme Low Rise	0.03	0.01	0.24	0.10	< 0.005	0.02	—	0.02	0.02	—	0.02	—	275	275	0.02	< 0.005	—	276
Single Family Housing	0.17	0.09	1.47	0.63	0.01	0.12	—	0.12	0.12	—	0.12	—	1,698	1,698	0.15	< 0.005	—	1,703
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Element ary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.3
General Office Building	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	128	128	0.01	< 0.005	—	128
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.28	0.14	2.39	1.07	0.02	0.19	—	0.19	0.19	—	0.19	—	2,744	2,744	0.24	0.01	—	2,752

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3.41	1.70	29.1	12.4	0.19	2.35	—	2.35	2.35	—	2.35	0.00	36,972	36,972	0.70	0.07	—	37,010
Consum er Products	—	67.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	26.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	11.0	10.4	1.06	116	0.01	0.06	—	0.06	0.04	—	0.04	—	317	317	0.01	< 0.005	—	318
Total	14.4	107	30.2	129	0.19	2.41	—	2.41	2.40	—	2.40	0.00	37,289	37,289	0.71	0.07	—	37,328
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3.41	1.70	29.1	12.4	0.19	2.35	—	2.35	2.35	—	2.35	0.00	36,972	36,972	0.70	0.07	—	37,010
Consumer Products	—	67.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	26.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	3.41	96.3	29.1	12.4	0.19	2.35	—	2.35	2.35	—	2.35	0.00	36,972	36,972	0.70	0.07	—	37,010
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.14	0.07	1.19	0.51	0.01	0.10	—	0.10	0.10	—	0.10	0.00	1,375	1,375	0.03	< 0.005	—	1,377
Consumer Products	—	12.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	4.91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.99	0.94	0.10	10.5	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	25.9	25.9	< 0.005	< 0.005	—	26.0
Total	1.13	18.3	1.29	11.0	0.01	0.10	—	0.10	0.10	—	0.10	0.00	1,401	1,401	0.03	< 0.005	—	1,403

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3.41	1.70	29.1	12.4	0.19	2.35	—	2.35	2.35	—	2.35	0.00	36,972	36,972	0.70	0.07	—	37,010
Consumer Products	—	67.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	26.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	11.0	10.4	1.06	116	0.01	0.06	—	0.06	0.04	—	0.04	—	317	317	0.01	< 0.005	—	318
Total	14.4	107	30.2	129	0.19	2.41	—	2.41	2.40	—	2.40	0.00	37,289	37,289	0.71	0.07	—	37,328
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3.41	1.70	29.1	12.4	0.19	2.35	—	2.35	2.35	—	2.35	0.00	36,972	36,972	0.70	0.07	—	37,010
Consumer Products	—	67.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	26.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	3.41	96.3	29.1	12.4	0.19	2.35	—	2.35	2.35	—	2.35	0.00	36,972	36,972	0.70	0.07	—	37,010
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.14	0.07	1.19	0.51	0.01	0.10	—	0.10	0.10	—	0.10	0.00	1,375	1,375	0.03	< 0.005	—	1,377
Consumer Products	—	12.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	4.91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.99	0.94	0.10	10.5	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	25.9	25.9	< 0.005	< 0.005	—	26.0
Total	1.13	18.3	1.29	11.0	0.01	0.10	—	0.10	0.10	—	0.10	0.00	1,401	1,401	0.03	< 0.005	—	1,403

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	31.3	6.99	38.3	3.21	0.08	—	141
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	20.9	4.68	25.6	2.14	0.05	—	94.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	67.4	52.4	120	6.91	0.16	—	342
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.06	5.79	0.49	0.01	—	21.4

General Office Building	—	—	—	—	—	—	—	—	—	—	—	28.4	6.35	34.7	2.91	0.07	—	128
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	153	71.5	224	15.7	0.37	—	726
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	31.3	6.99	38.3	3.21	0.08	—	141
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	20.9	4.68	25.6	2.14	0.05	—	94.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	67.4	52.4	120	6.91	0.16	—	342
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.06	5.79	0.49	0.01	—	21.4
General Office Building	—	—	—	—	—	—	—	—	—	—	—	28.4	6.35	34.7	2.91	0.07	—	128
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	153	71.5	224	15.7	0.37	—	726

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	5.18	1.16	6.33	0.53	0.01	—	23.4
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	3.46	0.77	4.23	0.35	0.01	—	15.6
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	11.2	8.67	19.8	1.14	0.03	—	56.6
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.78	0.18	0.96	0.08	< 0.005	—	3.54
General Office Building	—	—	—	—	—	—	—	—	—	—	—	4.70	1.05	5.75	0.48	0.01	—	21.2
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	25.3	11.8	37.1	2.59	0.06	—	120

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	31.3	6.99	38.3	3.21	0.08	—	141
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	20.9	4.68	25.6	2.14	0.05	—	94.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	67.4	52.4	120	6.91	0.16	—	342
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.06	5.79	0.49	0.01	—	21.4
General Office Building	—	—	—	—	—	—	—	—	—	—	—	28.4	6.35	34.7	2.91	0.07	—	128
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	153	71.5	224	15.7	0.37	—	726
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	31.3	6.99	38.3	3.21	0.08	—	141
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	20.9	4.68	25.6	2.14	0.05	—	94.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	67.4	52.4	120	6.91	0.16	—	342

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	4.73	1.06	5.79	0.49	0.01	—	21.4
General Office Building	—	—	—	—	—	—	—	—	—	—	—	28.4	6.35	34.7	2.91	0.07	—	128
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	153	71.5	224	15.7	0.37	—	726
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	5.18	1.16	6.33	0.53	0.01	—	23.4
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	3.46	0.77	4.23	0.35	0.01	—	15.6
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	11.2	8.67	19.8	1.14	0.03	—	56.6
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.78	0.18	0.96	0.08	< 0.005	—	3.54
General Office Building	—	—	—	—	—	—	—	—	—	—	—	4.70	1.05	5.75	0.48	0.01	—	21.2

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	25.3	11.8	37.1	2.59	0.06	—	120

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	203	0.00	203	20.3	0.00	—	711
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	136	0.00	136	13.6	0.00	—	475
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	330	0.00	330	33.0	0.00	—	1,156
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	41.8	0.00	41.8	4.17	0.00	—	146

City Park	—	—	—	—	—	—	—	—	—	—	—	0.60	0.00	0.60	0.06	0.00	—	2.11
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	731	0.00	731	73.0	0.00	—	2,556
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	203	0.00	203	20.3	0.00	—	711
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	136	0.00	136	13.6	0.00	—	475
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	330	0.00	330	33.0	0.00	—	1,156
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	41.8	0.00	41.8	4.17	0.00	—	146
City Park	—	—	—	—	—	—	—	—	—	—	—	0.60	0.00	0.60	0.06	0.00	—	2.11
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	731	0.00	731	73.0	0.00	—	2,556
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	33.6	0.00	33.6	3.36	0.00	—	118
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	22.5	0.00	22.5	2.25	0.00	—	78.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	54.7	0.00	54.7	5.47	0.00	—	191
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.12	0.00	3.12	0.31	0.00	—	10.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	6.92	0.00	6.92	0.69	0.00	—	24.2
City Park	—	—	—	—	—	—	—	—	—	—	—	0.10	0.00	0.10	0.01	0.00	—	0.35
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	121	0.00	121	12.1	0.00	—	423

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	203	0.00	203	20.3	0.00	—	711
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	136	0.00	136	13.6	0.00	—	475
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	330	0.00	330	33.0	0.00	—	1,156
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	41.8	0.00	41.8	4.17	0.00	—	146
City Park	—	—	—	—	—	—	—	—	—	—	—	0.60	0.00	0.60	0.06	0.00	—	2.11
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	731	0.00	731	73.0	0.00	—	2,556
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	203	0.00	203	20.3	0.00	—	711
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	136	0.00	136	13.6	0.00	—	475
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	330	0.00	330	33.0	0.00	—	1,156

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	18.9	0.00	18.9	1.89	0.00	—	66.0
General Office Building	—	—	—	—	—	—	—	—	—	—	—	41.8	0.00	41.8	4.17	0.00	—	146
City Park	—	—	—	—	—	—	—	—	—	—	—	0.60	0.00	0.60	0.06	0.00	—	2.11
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	731	0.00	731	73.0	0.00	—	2,556
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	33.6	0.00	33.6	3.36	0.00	—	118
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	22.5	0.00	22.5	2.25	0.00	—	78.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	54.7	0.00	54.7	5.47	0.00	—	191
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.12	0.00	3.12	0.31	0.00	—	10.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	6.92	0.00	6.92	0.69	0.00	—	24.2

City Park	—	—	—	—	—	—	—	—	—	—	—	0.10	0.00	0.10	0.01	0.00	—	0.35
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	121	0.00	121	12.1	0.00	—	423

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.87	3.87
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.59	2.59
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.4	15.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20

City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22.2	22.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.87	3.87
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.59	2.59
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.4	15.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22.2	22.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.64	0.64
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.54	2.54
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.68	3.68

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.87	3.87
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.59	2.59
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.4	15.4

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22.2	22.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.87	3.87
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.59	2.59
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.4	15.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22.2	22.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.64	0.64
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.54	2.54
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.68	3.68

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	19,208	19,208	19,208	7,010,738	100,526	100,526	100,526	36,691,930

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	19,208	19,208	19,208	7,010,738	100,526	100,526	100,526	36,691,930

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	459
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	307
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	990

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	459
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	307
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	990
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
6170296.5	2,056,766	175,002	58,334	28,750

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	2,631,173	50.0	0.0000	0.0000	11,842,172
Apartments Low Rise	1,515,700	50.0	0.0000	0.0000	5,182,904
Single Family Housing	9,378,280	50.0	0.0000	0.0000	31,999,028
Junior High School	0.00	50.0	0.0000	0.0000	0.00
Elementary School	0.00	50.0	0.0000	0.0000	0.00
Strip Mall	290,408	50.0	0.0000	0.0000	287,526
General Office Building	1,744,125	50.0	0.0000	0.0000	2,405,771
City Park	0.00	50.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	50.0	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	2,628,659	50.0	0.0000	0.0000	11,842,172
Apartments Low Rise	1,514,858	50.0	0.0000	0.0000	5,182,904
Single Family Housing	9,371,949	50.0	0.0000	0.0000	31,999,028
Junior High School	0.00	50.0	0.0000	0.0000	0.00
Elementary School	0.00	50.0	0.0000	0.0000	0.00
Strip Mall	290,408	50.0	0.0000	0.0000	287,526
General Office Building	1,744,125	50.0	0.0000	0.0000	2,405,771

City Park	0.00	50.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	50.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	16,312,325	0.00
Apartments Low Rise	10,906,868	0.00
Single Family Housing	35,183,445	168,996,073
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	2,469,133	0.00
General Office Building	14,811,264	0.00
City Park	0.00	310
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	16,312,325	0.00
Apartments Low Rise	10,906,868	0.00
Single Family Housing	35,183,445	168,996,073
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	2,469,133	0.00
General Office Building	14,811,264	0.00
City Park	0.00	310

Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	377	—
Apartments Low Rise	252	—
Single Family Housing	613	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	35.0	—
General Office Building	77.5	—
City Park	1.12	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	377	—
Apartments Low Rise	252	—
Single Family Housing	613	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	35.0	—
General Office Building	77.5	—
City Park	1.12	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9

AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—

Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8

Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team

MV OP 10 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 10
Operational Year	2036
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	561	Dwelling Unit	65.0	594,660	0.00	—	1,425	—

Apartments Low Rise	404	Dwelling Unit	21.0	428,240	0.00	—	1,026	—
Single Family Housing	1,210	Dwelling Unit	422	2,359,500	14,172,557	—	3,073	—
Junior High School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	66.7	1000sqft	1.53	66,668	0.00	—	—	—
General Office Building	125	1000sqft	2.87	125,001	0.00	—	—	—
City Park	20.0	Acre	20.0	0.00	20.0	20.0	—	—
Other Asphalt Surfaces	11.0	Acre	11.0	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	96.8	197	82.3	539	1.15	4.41	80.8	85.2	4.36	20.5	24.9	1,035	148,110	149,145	110	4.29	130	153,305
Mit.	96.8	197	82.3	539	1.15	4.41	80.8	85.2	4.36	20.5	24.9	1,035	148,109	149,144	110	4.29	130	153,304
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	78.1	178	86.9	392	1.08	4.34	80.8	85.1	4.31	20.5	24.8	1,035	141,478	142,513	111	4.68	27.7	146,706
Mit.	78.1	178	86.9	392	1.08	4.34	80.8	85.1	4.31	20.5	24.8	1,035	141,477	142,512	111	4.68	27.7	146,704
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	81.5	183	60.3	435	0.93	2.34	80.3	82.6	2.30	20.4	22.7	1,035	110,909	111,944	110	4.47	70.4	116,094
Mit.	81.5	183	60.3	435	0.93	2.34	80.3	82.6	2.30	20.4	22.7	1,035	110,908	111,943	110	4.47	70.4	116,092
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	14.9	33.4	11.0	79.4	0.17	0.43	14.6	15.1	0.42	3.72	4.14	171	18,362	18,534	18.2	0.74	11.6	19,221
Mit.	14.9	33.4	11.0	79.4	0.17	0.43	14.6	15.1	0.42	3.72	4.14	171	18,362	18,533	18.2	0.74	11.6	19,220
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	78.5	75.0	33.7	386	0.84	0.52	80.8	81.3	0.49	20.5	21.0	—	85,448	85,448	3.78	3.72	105	86,756
Area	16.6	121	33.7	146	0.21	2.70	—	2.70	2.68	—	2.68	0.00	41,581	41,581	0.79	0.08	—	41,625
Energy	1.73	0.86	14.9	6.79	0.09	1.20	—	1.20	1.20	—	1.20	—	21,007	21,007	1.66	0.04	—	21,059
Water	—	—	—	—	—	—	—	—	—	—	—	185	74.3	260	19.0	0.45	—	869

Waste	—	—	—	—	—	—	—	—	—	—	—	849	0.00	849	84.9	0.00	—	2,971
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.9	24.9
Total	96.8	197	82.3	539	1.15	4.41	80.8	85.2	4.36	20.5	24.9	1,035	148,110	149,145	110	4.29	130	153,305
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	72.6	68.8	39.6	371	0.78	0.52	80.8	81.3	0.49	20.5	21.0	—	79,180	79,180	4.51	4.12	2.73	80,522
Area	3.80	109	32.5	13.8	0.21	2.63	—	2.63	2.63	—	2.63	0.00	41,217	41,217	0.78	0.08	—	41,259
Energy	1.73	0.86	14.9	6.79	0.09	1.20	—	1.20	1.20	—	1.20	—	21,007	21,007	1.66	0.04	—	21,059
Water	—	—	—	—	—	—	—	—	—	—	—	185	74.3	260	19.0	0.45	—	869
Waste	—	—	—	—	—	—	—	—	—	—	—	849	0.00	849	84.9	0.00	—	2,971
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.9	24.9
Total	78.1	178	86.9	392	1.08	4.34	80.8	85.1	4.31	20.5	24.8	1,035	141,478	142,513	111	4.68	27.7	146,706
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	72.6	68.9	37.5	360	0.79	0.52	80.3	80.8	0.49	20.4	20.9	—	80,389	80,389	4.22	3.96	45.4	81,720
Area	7.15	113	7.89	68.4	0.05	0.62	—	0.62	0.62	—	0.62	0.00	9,439	9,439	0.18	0.02	—	9,449
Energy	1.73	0.86	14.9	6.79	0.09	1.20	—	1.20	1.20	—	1.20	—	21,007	21,007	1.66	0.04	—	21,059
Water	—	—	—	—	—	—	—	—	—	—	—	185	74.3	260	19.0	0.45	—	869
Waste	—	—	—	—	—	—	—	—	—	—	—	849	0.00	849	84.9	0.00	—	2,971
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.9	24.9
Total	81.5	183	60.3	435	0.93	2.34	80.3	82.6	2.30	20.4	22.7	1,035	110,909	111,944	110	4.47	70.4	116,094
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	13.2	12.6	6.85	65.7	0.14	0.10	14.6	14.7	0.09	3.72	3.81	—	13,309	13,309	0.70	0.66	7.52	13,530
Area	1.30	20.6	1.44	12.5	0.01	0.11	—	0.11	0.11	—	0.11	0.00	1,563	1,563	0.03	< 0.005	—	1,564
Energy	0.32	0.16	2.71	1.24	0.02	0.22	—	0.22	0.22	—	0.22	—	3,478	3,478	0.27	0.01	—	3,487
Water	—	—	—	—	—	—	—	—	—	—	—	30.7	12.3	43.0	3.15	0.07	—	144
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	492
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.13	4.13

Total	14.9	33.4	11.0	79.4	0.17	0.43	14.6	15.1	0.42	3.72	4.14	171	18,362	18,534	18.2	0.74	11.6	19,221

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	78.5	75.0	33.7	386	0.84	0.52	80.8	81.3	0.49	20.5	21.0	—	85,448	85,448	3.78	3.72	105	86,756
Area	16.6	121	33.7	146	0.21	2.70	—	2.70	2.68	—	2.68	0.00	41,581	41,581	0.79	0.08	—	41,625
Energy	1.73	0.86	14.9	6.79	0.09	1.20	—	1.20	1.20	—	1.20	—	21,006	21,006	1.66	0.04	—	21,058
Water	—	—	—	—	—	—	—	—	—	—	—	185	74.3	260	19.0	0.45	—	869
Waste	—	—	—	—	—	—	—	—	—	—	—	849	0.00	849	84.9	0.00	—	2,971
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.9	24.9
Total	96.8	197	82.3	539	1.15	4.41	80.8	85.2	4.36	20.5	24.9	1,035	148,109	149,144	110	4.29	130	153,304
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	72.6	68.8	39.6	371	0.78	0.52	80.8	81.3	0.49	20.5	21.0	—	79,180	79,180	4.51	4.12	2.73	80,522
Area	3.80	109	32.5	13.8	0.21	2.63	—	2.63	2.63	—	2.63	0.00	41,217	41,217	0.78	0.08	—	41,259
Energy	1.73	0.86	14.9	6.79	0.09	1.20	—	1.20	1.20	—	1.20	—	21,006	21,006	1.66	0.04	—	21,058
Water	—	—	—	—	—	—	—	—	—	—	—	185	74.3	260	19.0	0.45	—	869
Waste	—	—	—	—	—	—	—	—	—	—	—	849	0.00	849	84.9	0.00	—	2,971
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.9	24.9
Total	78.1	178	86.9	392	1.08	4.34	80.8	85.1	4.31	20.5	24.8	1,035	141,477	142,512	111	4.68	27.7	146,704
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	72.6	68.9	37.5	360	0.79	0.52	80.3	80.8	0.49	20.4	20.9	—	80,389	80,389	4.22	3.96	45.4	81,720
Area	7.15	113	7.89	68.4	0.05	0.62	—	0.62	0.62	—	0.62	0.00	9,439	9,439	0.18	0.02	—	9,449

Energy	1.73	0.86	14.9	6.79	0.09	1.20	—	1.20	1.20	—	1.20	—	21,006	21,006	1.66	0.04	—	21,058
Water	—	—	—	—	—	—	—	—	—	—	—	185	74.3	260	19.0	0.45	—	869
Waste	—	—	—	—	—	—	—	—	—	—	—	849	0.00	849	84.9	0.00	—	2,971
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.9	24.9
Total	81.5	183	60.3	435	0.93	2.34	80.3	82.6	2.30	20.4	22.7	1,035	110,908	111,943	110	4.47	70.4	116,092
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	13.2	12.6	6.85	65.7	0.14	0.10	14.6	14.7	0.09	3.72	3.81	—	13,309	13,309	0.70	0.66	7.52	13,530
Area	1.30	20.6	1.44	12.5	0.01	0.11	—	0.11	0.11	—	0.11	0.00	1,563	1,563	0.03	< 0.005	—	1,564
Energy	0.32	0.16	2.71	1.24	0.02	0.22	—	0.22	0.22	—	0.22	—	3,478	3,478	0.27	0.01	—	3,486
Water	—	—	—	—	—	—	—	—	—	—	—	30.7	12.3	43.0	3.15	0.07	—	144
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	492
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.13	4.13
Total	14.9	33.4	11.0	79.4	0.17	0.43	14.6	15.1	0.42	3.72	4.14	171	18,362	18,533	18.2	0.74	11.6	19,220

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	357	357	0.00	0.00	—	357
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	221	221	0.00	0.00	—	221
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,271	1,271	0.00	0.00	—	1,271
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	71.6	71.6	0.00	0.00	—	71.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	322	322	0.00	0.00	—	322
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,243	2,243	0.00	0.00	—	2,243
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	357	357	0.00	0.00	—	357
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	221	221	0.00	0.00	—	221

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,271	1,271	0.00	0.00	—	1,271
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	71.6	71.6	0.00	0.00	—	71.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	322	322	0.00	0.00	—	322
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,243	2,243	0.00	0.00	—	2,243
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	59.0	59.0	0.00	0.00	—	59.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	36.6	36.6	0.00	0.00	—	36.6
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	210	210	0.00	0.00	—	210
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	11.8	11.8	0.00	0.00	—	11.8

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	53.4	53.4	0.00	0.00	—	53.4
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	371	371	0.00	0.00	—	371

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	356	356	0.00	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	221	221	0.00	0.00	—	221
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,270	1,270	0.00	0.00	—	1,270
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	71.6	71.6	0.00	0.00	—	71.6

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	322	322	0.00	0.00	—	322
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,241	2,241	0.00	0.00	—	2,241
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	356	356	0.00	0.00	—	356
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	221	221	0.00	0.00	—	221
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,270	1,270	0.00	0.00	—	1,270
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	71.6	71.6	0.00	0.00	—	71.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	322	322	0.00	0.00	—	322
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,241	2,241	0.00	0.00	—	2,241

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	59.0	59.0	0.00	0.00	—	59.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	36.6	36.6	0.00	0.00	—	36.6
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	210	210	0.00	0.00	—	210
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	11.8	11.8	0.00	0.00	—	11.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	53.4	53.4	0.00	0.00	—	53.4
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	371	371	0.00	0.00	—	371

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	0.38	0.19	3.29	1.40	0.02	0.27	—	0.27	0.27	—	0.27	—	4,175	4,175	0.37	0.01	—	4,186
Apartments Low Rise	0.18	0.09	1.55	0.66	0.01	0.13	—	0.13	0.13	—	0.13	—	1,968	1,968	0.17	< 0.005	—	1,973
Single Family Housing	1.04	0.52	8.89	3.78	0.06	0.72	—	0.72	0.72	—	0.72	—	11,281	11,281	1.00	0.02	—	11,312
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.11	0.05	0.97	0.81	0.01	0.07	—	0.07	0.07	—	0.07	—	1,157	1,157	0.10	< 0.005	—	1,160
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.73	0.86	14.9	6.79	0.09	1.20	—	1.20	1.20	—	1.20	—	18,764	18,764	1.66	0.04	—	18,816
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.38	0.19	3.29	1.40	0.02	0.27	—	0.27	0.27	—	0.27	—	4,175	4,175	0.37	0.01	—	4,186
Apartments Low Rise	0.18	0.09	1.55	0.66	0.01	0.13	—	0.13	0.13	—	0.13	—	1,968	1,968	0.17	< 0.005	—	1,973
Single Family Housing	1.04	0.52	8.89	3.78	0.06	0.72	—	0.72	0.72	—	0.72	—	11,281	11,281	1.00	0.02	—	11,312

Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.11	0.05	0.97	0.81	0.01	0.07	—	0.07	0.07	—	0.07	—	1,157	1,157	0.10	< 0.005	—	1,160
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.73	0.86	14.9	6.79	0.09	1.20	—	1.20	1.20	—	1.20	—	18,764	18,764	1.66	0.04	—	18,816
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.07	0.04	0.60	0.26	< 0.005	0.05	—	0.05	0.05	—	0.05	—	691	691	0.06	< 0.005	—	693
Apartments Low Rise	0.03	0.02	0.28	0.12	< 0.005	0.02	—	0.02	0.02	—	0.02	—	326	326	0.03	< 0.005	—	327
Single Family Housing	0.19	0.09	1.62	0.69	0.01	0.13	—	0.13	0.13	—	0.13	—	1,868	1,868	0.17	< 0.005	—	1,873
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.5	30.5	< 0.005	< 0.005	—	30.6
General Office Building	0.02	0.01	0.18	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	191	191	0.02	< 0.005	—	192

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.32	0.16	2.71	1.24	0.02	0.22	—	0.22	0.22	—	0.22	—	3,107	3,107	0.27	0.01	—	3,115

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.38	0.19	3.29	1.40	0.02	0.27	—	0.27	0.27	—	0.27	—	4,175	4,175	0.37	0.01	—	4,186
Apartments Low Rise	0.18	0.09	1.55	0.66	0.01	0.13	—	0.13	0.13	—	0.13	—	1,968	1,968	0.17	< 0.005	—	1,973
Single Family Housing	1.04	0.52	8.89	3.78	0.06	0.72	—	0.72	0.72	—	0.72	—	11,281	11,281	1.00	0.02	—	11,312
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.11	0.05	0.97	0.81	0.01	0.07	—	0.07	0.07	—	0.07	—	1,157	1,157	0.10	< 0.005	—	1,160
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.73	0.86	14.9	6.79	0.09	1.20	—	1.20	1.20	—	1.20	—	18,764	18,764	1.66	0.04	—	18,816
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.38	0.19	3.29	1.40	0.02	0.27	—	0.27	0.27	—	0.27	—	4,175	4,175	0.37	0.01	—	4,186
Apartments Low Rise	0.18	0.09	1.55	0.66	0.01	0.13	—	0.13	0.13	—	0.13	—	1,968	1,968	0.17	< 0.005	—	1,973
Single Family Housing	1.04	0.52	8.89	3.78	0.06	0.72	—	0.72	0.72	—	0.72	—	11,281	11,281	1.00	0.02	—	11,312
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.11	0.05	0.97	0.81	0.01	0.07	—	0.07	0.07	—	0.07	—	1,157	1,157	0.10	< 0.005	—	1,160
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.73	0.86	14.9	6.79	0.09	1.20	—	1.20	1.20	—	1.20	—	18,764	18,764	1.66	0.04	—	18,816
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.07	0.04	0.60	0.26	< 0.005	0.05	—	0.05	0.05	—	0.05	—	691	691	0.06	< 0.005	—	693

Apartment Low Rise	0.03	0.02	0.28	0.12	< 0.005	0.02	—	0.02	0.02	—	0.02	—	326	326	0.03	< 0.005	—	327
Single Family Housing	0.19	0.09	1.62	0.69	0.01	0.13	—	0.13	0.13	—	0.13	—	1,868	1,868	0.17	< 0.005	—	1,873
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.5	30.5	< 0.005	< 0.005	—	30.6
General Office Building	0.02	0.01	0.18	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	191	191	0.02	< 0.005	—	192
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.32	0.16	2.71	1.24	0.02	0.22	—	0.22	0.22	—	0.22	—	3,107	3,107	0.27	0.01	—	3,115

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3.80	1.90	32.5	13.8	0.21	2.63	—	2.63	2.63	—	2.63	0.00	41,217	41,217	0.78	0.08	—	41,259
Consumer Products	—	76.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	30.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	12.8	12.1	1.21	132	0.01	0.07	—	0.07	0.05	—	0.05	—	364	364	0.02	< 0.005	—	365
Total	16.6	121	33.7	146	0.21	2.70	—	2.70	2.68	—	2.68	0.00	41,581	41,581	0.79	0.08	—	41,625
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3.80	1.90	32.5	13.8	0.21	2.63	—	2.63	2.63	—	2.63	0.00	41,217	41,217	0.78	0.08	—	41,259
Consumer Products	—	76.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	30.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	3.80	109	32.5	13.8	0.21	2.63	—	2.63	2.63	—	2.63	0.00	41,217	41,217	0.78	0.08	—	41,259
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.16	0.08	1.33	0.57	0.01	0.11	—	0.11	0.11	—	0.11	0.00	1,533	1,533	0.03	< 0.005	—	1,535
Consumer Products	—	14.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	5.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.15	1.08	0.11	11.9	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	29.7	29.7	< 0.005	< 0.005	—	29.8
Total	1.30	20.6	1.44	12.5	0.01	0.11	—	0.11	0.11	—	0.11	0.00	1,563	1,563	0.03	< 0.005	—	1,564

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3.80	1.90	32.5	13.8	0.21	2.63	—	2.63	2.63	—	2.63	0.00	41,217	41,217	0.78	0.08	—	41,259
Consumer Products	—	76.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	30.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	12.8	12.1	1.21	132	0.01	0.07	—	0.07	0.05	—	0.05	—	364	364	0.02	< 0.005	—	365
Total	16.6	121	33.7	146	0.21	2.70	—	2.70	2.68	—	2.68	0.00	41,581	41,581	0.79	0.08	—	41,625
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3.80	1.90	32.5	13.8	0.21	2.63	—	2.63	2.63	—	2.63	0.00	41,217	41,217	0.78	0.08	—	41,259
Consumer Products	—	76.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	30.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	3.80	109	32.5	13.8	0.21	2.63	—	2.63	2.63	—	2.63	0.00	41,217	41,217	0.78	0.08	—	41,259
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.16	0.08	1.33	0.57	0.01	0.11	—	0.11	0.11	—	0.11	0.00	1,533	1,533	0.03	< 0.005	—	1,535
Consumer Products	—	14.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	5.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.15	1.08	0.11	11.9	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	29.7	29.7	< 0.005	< 0.005	—	29.8
Total	1.30	20.6	1.44	12.5	0.01	0.11	—	0.11	0.11	—	0.11	0.00	1,563	1,563	0.03	< 0.005	—	1,564

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	34.4	6.92	41.3	3.53	0.08	—	154
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	24.8	4.99	29.7	2.54	0.06	—	111
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	74.2	51.9	126	7.60	0.18	—	370
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.91	11.4	0.97	0.02	—	42.5

General Office Building	—	—	—	—	—	—	—	—	—	—	—	42.6	8.57	51.1	4.37	0.10	—	191
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	185	74.3	260	19.0	0.45	—	869
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	34.4	6.92	41.3	3.53	0.08	—	154
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	24.8	4.99	29.7	2.54	0.06	—	111
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	74.2	51.9	126	7.60	0.18	—	370
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.91	11.4	0.97	0.02	—	42.5
General Office Building	—	—	—	—	—	—	—	—	—	—	—	42.6	8.57	51.1	4.37	0.10	—	191
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	185	74.3	260	19.0	0.45	—	869

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	5.69	1.15	6.84	0.58	0.01	—	25.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	4.10	0.83	4.93	0.42	0.01	—	18.4
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	12.3	8.59	20.9	1.26	0.03	—	61.3
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.57	0.32	1.88	0.16	< 0.005	—	7.04
General Office Building	—	—	—	—	—	—	—	—	—	—	—	7.05	1.42	8.47	0.72	0.02	—	31.7
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	30.7	12.3	43.0	3.15	0.07	—	144

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	34.4	6.92	41.3	3.53	0.08	—	154
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	24.8	4.99	29.7	2.54	0.06	—	111
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	74.2	51.9	126	7.60	0.18	—	370
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.91	11.4	0.97	0.02	—	42.5
General Office Building	—	—	—	—	—	—	—	—	—	—	—	42.6	8.57	51.1	4.37	0.10	—	191
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	185	74.3	260	19.0	0.45	—	869
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	34.4	6.92	41.3	3.53	0.08	—	154
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	24.8	4.99	29.7	2.54	0.06	—	111
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	74.2	51.9	126	7.60	0.18	—	370

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.91	11.4	0.97	0.02	—	42.5
General Office Building	—	—	—	—	—	—	—	—	—	—	—	42.6	8.57	51.1	4.37	0.10	—	191
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	185	74.3	260	19.0	0.45	—	869
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	5.69	1.15	6.84	0.58	0.01	—	25.6
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	4.10	0.83	4.93	0.42	0.01	—	18.4
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	12.3	8.59	20.9	1.26	0.03	—	61.3
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.57	0.32	1.88	0.16	< 0.005	—	7.04
General Office Building	—	—	—	—	—	—	—	—	—	—	—	7.05	1.42	8.47	0.72	0.02	—	31.7

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	30.7	12.3	43.0	3.15	0.07	—	144

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	224	0.00	224	22.3	0.00	—	782
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	161	0.00	161	16.1	0.00	—	563
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	363	0.00	363	36.3	0.00	—	1,271
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	62.7	0.00	62.7	6.26	0.00	—	219

City Park	—	—	—	—	—	—	—	—	—	—	—	0.93	0.00	0.93	0.09	0.00	—	3.24
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	849	0.00	849	84.9	0.00	—	2,971
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	224	0.00	224	22.3	0.00	—	782
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	161	0.00	161	16.1	0.00	—	563
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	363	0.00	363	36.3	0.00	—	1,271
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	62.7	0.00	62.7	6.26	0.00	—	219
City Park	—	—	—	—	—	—	—	—	—	—	—	0.93	0.00	0.93	0.09	0.00	—	3.24
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	849	0.00	849	84.9	0.00	—	2,971
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	37.0	0.00	37.0	3.70	0.00	—	129
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	26.6	0.00	26.6	2.66	0.00	—	93.2
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	60.2	0.00	60.2	6.01	0.00	—	210
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.25	0.00	6.25	0.62	0.00	—	21.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	10.4	0.00	10.4	1.04	0.00	—	36.3
City Park	—	—	—	—	—	—	—	—	—	—	—	0.15	0.00	0.15	0.02	0.00	—	0.54
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	492

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	224	0.00	224	22.3	0.00	—	782
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	161	0.00	161	16.1	0.00	—	563
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	363	0.00	363	36.3	0.00	—	1,271
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	62.7	0.00	62.7	6.26	0.00	—	219
City Park	—	—	—	—	—	—	—	—	—	—	—	0.93	0.00	0.93	0.09	0.00	—	3.24
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	849	0.00	849	84.9	0.00	—	2,971
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	224	0.00	224	22.3	0.00	—	782
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	161	0.00	161	16.1	0.00	—	563
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	363	0.00	363	36.3	0.00	—	1,271

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	62.7	0.00	62.7	6.26	0.00	—	219
City Park	—	—	—	—	—	—	—	—	—	—	—	0.93	0.00	0.93	0.09	0.00	—	3.24
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	849	0.00	849	84.9	0.00	—	2,971
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	37.0	0.00	37.0	3.70	0.00	—	129
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	26.6	0.00	26.6	2.66	0.00	—	93.2
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	60.2	0.00	60.2	6.01	0.00	—	210
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.25	0.00	6.25	0.62	0.00	—	21.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	10.4	0.00	10.4	1.04	0.00	—	36.3

City Park	—	—	—	—	—	—	—	—	—	—	—	0.15	0.00	0.15	0.02	0.00	—	0.54
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	492

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.26	4.26
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.07	3.07
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.9	16.9
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.30	0.30

City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.9	24.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.26	4.26
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.07	3.07
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.9	16.9
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.30	0.30
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.9	24.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.71	0.71
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.51	0.51

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.80	2.80
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.13	4.13

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.26	4.26
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.07	3.07
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.9	16.9

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.30	0.30
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.9	24.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.26	4.26
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.07	3.07
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.9	16.9
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.30	0.30
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.9	24.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.71	0.71
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.51	0.51
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.80	2.80
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.13	4.13

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	22,853	22,853	22,853	8,341,324	113,917	113,917	113,917	41,579,705

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	22,853	22,853	22,853	8,341,324	113,917	113,917	113,917	41,579,705

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	505
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	364
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1089

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	505
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	364
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1089
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
6849360	2,283,120	287,504	95,835	28,750

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	2,894,290	45.0	0.0000	0.0000	13,026,389
Apartments Low Rise	1,795,727	45.0	0.0000	0.0000	6,140,449
Single Family Housing	10,316,108	45.0	0.0000	0.0000	35,198,931
Junior High School	0.00	45.0	0.0000	0.0000	0.00
Elementary School	0.00	45.0	0.0000	0.0000	0.00
Strip Mall	580,817	45.0	0.0000	0.0000	575,052
General Office Building	2,616,188	45.0	0.0000	0.0000	3,608,656
City Park	0.00	45.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	45.0	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	2,891,525	45.0	0.0000	0.0000	13,026,389
Apartments Low Rise	1,794,730	45.0	0.0000	0.0000	6,140,449
Single Family Housing	10,309,143	45.0	0.0000	0.0000	35,198,931
Junior High School	0.00	45.0	0.0000	0.0000	0.00
Elementary School	0.00	45.0	0.0000	0.0000	0.00
Strip Mall	580,817	45.0	0.0000	0.0000	575,052
General Office Building	2,616,188	45.0	0.0000	0.0000	3,608,656

City Park	0.00	45.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	45.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	17,943,557	0.00
Apartments Low Rise	12,921,920	0.00
Single Family Housing	38,701,790	185,895,676
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	4,938,267	0.00
General Office Building	22,216,896	0.00
City Park	0.00	477
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	17,943,557	0.00
Apartments Low Rise	12,921,920	0.00
Single Family Housing	38,701,790	185,895,676
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	4,938,267	0.00
General Office Building	22,216,896	0.00
City Park	0.00	477

Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	415	—
Apartments Low Rise	299	—
Single Family Housing	674	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	70.0	—
General Office Building	116	—
City Park	1.72	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	415	—
Apartments Low Rise	299	—
Single Family Housing	674	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	70.0	—
General Office Building	116	—
City Park	1.72	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9

AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—

Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8

Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team

MV OP 11 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 11
Operational Year	2037
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	612	Dwelling Unit	71.0	648,720	0.00	—	1,554	—

Apartments Low Rise	479	Dwelling Unit	24.0	507,740	0.00	—	1,217	—
Single Family Housing	1,320	Dwelling Unit	461	2,574,000	15,460,971	—	3,353	—
Junior High School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	66.7	1000sqft	1.53	66,668	0.00	—	—	—
General Office Building	166	1000sqft	3.81	166,000	0.00	—	—	—
City Park	26.0	Acre	26.0	0.00	26.0	26.0	—	—
Other Asphalt Surfaces	11.0	Acre	11.0	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	107	217	89.7	595	1.27	4.86	90.4	95.3	4.81	23.0	27.8	1,167	163,707	164,874	124	4.70	130	169,506
Mit.	107	217	89.7	595	1.27	4.86	90.4	95.3	4.81	23.0	27.8	1,167	163,706	164,873	124	4.70	130	169,505
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	86.1	197	94.7	429	1.19	4.78	90.4	95.2	4.75	23.0	27.7	1,167	156,323	157,490	125	5.14	30.2	162,172
Mit.	86.1	197	94.7	429	1.19	4.78	90.4	95.2	4.75	23.0	27.7	1,167	156,322	157,489	125	5.14	30.2	162,171
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	89.9	202	65.2	478	1.03	2.57	89.8	92.4	2.52	22.8	25.3	1,167	122,445	123,612	124	4.90	71.8	128,241
Mit.	89.9	202	65.2	478	1.03	2.57	89.8	92.4	2.52	22.8	25.3	1,167	122,444	123,611	124	4.90	71.8	128,239
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.4	37.0	11.9	87.3	0.19	0.47	16.4	16.9	0.46	4.16	4.62	193	20,272	20,465	20.5	0.81	11.9	21,232
Mit.	16.4	37.0	11.9	87.3	0.19	0.47	16.4	16.9	0.46	4.16	4.62	193	20,272	20,465	20.5	0.81	11.9	21,232
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	86.2	82.4	35.8	424	0.93	0.54	90.4	90.9	0.51	23.0	23.5	—	94,367	94,367	4.12	4.05	103	95,780
Area	18.5	134	37.3	163	0.24	2.99	—	2.99	2.97	—	2.97	0.00	46,096	46,096	0.88	0.09	—	46,145
Energy	1.93	0.96	16.6	7.65	0.11	1.33	—	1.33	1.33	—	1.33	—	23,170	23,170	1.85	0.04	—	23,228
Water	—	—	—	—	—	—	—	—	—	—	—	214	74.1	288	21.9	0.52	—	991

Waste	—	—	—	—	—	—	—	—	—	—	—	953	0.00	953	95.3	0.00	—	3,335
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.5	27.5
Total	107	217	89.7	595	1.27	4.86	90.4	95.3	4.81	23.0	27.8	1,167	163,707	164,874	124	4.70	130	169,506
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	80.0	75.9	42.1	406	0.86	0.54	90.4	90.9	0.51	23.0	23.5	—	87,390	87,390	4.91	4.49	2.66	88,854
Area	4.21	120	36.0	15.3	0.23	2.91	—	2.91	2.91	—	2.91	0.00	45,689	45,689	0.86	0.09	—	45,736
Energy	1.93	0.96	16.6	7.65	0.11	1.33	—	1.33	1.33	—	1.33	—	23,170	23,170	1.85	0.04	—	23,228
Water	—	—	—	—	—	—	—	—	—	—	—	214	74.1	288	21.9	0.52	—	991
Waste	—	—	—	—	—	—	—	—	—	—	—	953	0.00	953	95.3	0.00	—	3,335
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.5	27.5
Total	86.1	197	94.7	429	1.19	4.78	90.4	95.2	4.75	23.0	27.7	1,167	156,323	157,490	125	5.14	30.2	162,172
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	80.0	76.0	39.8	394	0.87	0.54	89.8	90.3	0.51	22.8	23.3	—	88,736	88,736	4.59	4.32	44.3	90,183
Area	8.01	125	8.75	76.2	0.05	0.69	—	0.69	0.68	—	0.68	0.00	10,465	10,465	0.20	0.02	—	10,477
Energy	1.93	0.96	16.6	7.65	0.11	1.33	—	1.33	1.33	—	1.33	—	23,170	23,170	1.85	0.04	—	23,228
Water	—	—	—	—	—	—	—	—	—	—	—	214	74.1	288	21.9	0.52	—	991
Waste	—	—	—	—	—	—	—	—	—	—	—	953	0.00	953	95.3	0.00	—	3,335
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.5	27.5
Total	89.9	202	65.2	478	1.03	2.57	89.8	92.4	2.52	22.8	25.3	1,167	122,445	123,612	124	4.90	71.8	128,241
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	14.6	13.9	7.27	72.0	0.16	0.10	16.4	16.5	0.09	4.16	4.26	—	14,691	14,691	0.76	0.72	7.33	14,931
Area	1.46	22.9	1.60	13.9	0.01	0.13	—	0.13	0.12	—	0.12	0.00	1,733	1,733	0.03	< 0.005	—	1,735
Energy	0.35	0.18	3.02	1.40	0.02	0.24	—	0.24	0.24	—	0.24	—	3,836	3,836	0.31	0.01	—	3,846
Water	—	—	—	—	—	—	—	—	—	—	—	35.4	12.3	47.7	3.63	0.09	—	164
Waste	—	—	—	—	—	—	—	—	—	—	—	158	0.00	158	15.8	0.00	—	552
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.56	4.56

Total	16.4	37.0	11.9	87.3	0.19	0.47	16.4	16.9	0.46	4.16	4.62	193	20,272	20,465	20.5	0.81	11.9	21,232

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	86.2	82.4	35.8	424	0.93	0.54	90.4	90.9	0.51	23.0	23.5	—	94,367	94,367	4.12	4.05	103	95,780
Area	18.5	134	37.3	163	0.24	2.99	—	2.99	2.97	—	2.97	0.00	46,096	46,096	0.88	0.09	—	46,145
Energy	1.93	0.96	16.6	7.65	0.11	1.33	—	1.33	1.33	—	1.33	—	23,168	23,168	1.85	0.04	—	23,226
Water	—	—	—	—	—	—	—	—	—	—	—	214	74.1	288	21.9	0.52	—	991
Waste	—	—	—	—	—	—	—	—	—	—	—	953	0.00	953	95.3	0.00	—	3,335
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.5	27.5
Total	107	217	89.7	595	1.27	4.86	90.4	95.3	4.81	23.0	27.8	1,167	163,706	164,873	124	4.70	130	169,505
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	80.0	75.9	42.1	406	0.86	0.54	90.4	90.9	0.51	23.0	23.5	—	87,390	87,390	4.91	4.49	2.66	88,854
Area	4.21	120	36.0	15.3	0.23	2.91	—	2.91	2.91	—	2.91	0.00	45,689	45,689	0.86	0.09	—	45,736
Energy	1.93	0.96	16.6	7.65	0.11	1.33	—	1.33	1.33	—	1.33	—	23,168	23,168	1.85	0.04	—	23,226
Water	—	—	—	—	—	—	—	—	—	—	—	214	74.1	288	21.9	0.52	—	991
Waste	—	—	—	—	—	—	—	—	—	—	—	953	0.00	953	95.3	0.00	—	3,335
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.5	27.5
Total	86.1	197	94.7	429	1.19	4.78	90.4	95.2	4.75	23.0	27.7	1,167	156,322	157,489	125	5.14	30.2	162,171
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	80.0	76.0	39.8	394	0.87	0.54	89.8	90.3	0.51	22.8	23.3	—	88,736	88,736	4.59	4.32	44.3	90,183
Area	8.01	125	8.75	76.2	0.05	0.69	—	0.69	0.68	—	0.68	0.00	10,465	10,465	0.20	0.02	—	10,477

Energy	1.93	0.96	16.6	7.65	0.11	1.33	—	1.33	1.33	—	1.33	—	23,168	23,168	1.85	0.04	—	23,226
Water	—	—	—	—	—	—	—	—	—	—	—	214	74.1	288	21.9	0.52	—	991
Waste	—	—	—	—	—	—	—	—	—	—	—	953	0.00	953	95.3	0.00	—	3,335
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.5	27.5
Total	89.9	202	65.2	478	1.03	2.57	89.8	92.4	2.52	22.8	25.3	1,167	122,444	123,611	124	4.90	71.8	128,239
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	14.6	13.9	7.27	72.0	0.16	0.10	16.4	16.5	0.09	4.16	4.26	—	14,691	14,691	0.76	0.72	7.33	14,931
Area	1.46	22.9	1.60	13.9	0.01	0.13	—	0.13	0.12	—	0.12	0.00	1,733	1,733	0.03	< 0.005	—	1,735
Energy	0.35	0.18	3.02	1.40	0.02	0.24	—	0.24	0.24	—	0.24	—	3,836	3,836	0.31	0.01	—	3,845
Water	—	—	—	—	—	—	—	—	—	—	—	35.4	12.3	47.7	3.63	0.09	—	164
Waste	—	—	—	—	—	—	—	—	—	—	—	158	0.00	158	15.8	0.00	—	552
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.56	4.56
Total	16.4	37.0	11.9	87.3	0.19	0.47	16.4	16.9	0.46	4.16	4.62	193	20,272	20,465	20.5	0.81	11.9	21,232

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	346	346	0.00	0.00	—	346
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	233	233	0.00	0.00	—	233
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,233	1,233	0.00	0.00	—	1,233
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	63.6	63.6	0.00	0.00	—	63.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	380	380	0.00	0.00	—	380
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,256	2,256	0.00	0.00	—	2,256
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	346	346	0.00	0.00	—	346
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	233	233	0.00	0.00	—	233

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,233	1,233	0.00	0.00	—	1,233
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	63.6	63.6	0.00	0.00	—	63.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	380	380	0.00	0.00	—	380
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,256	2,256	0.00	0.00	—	2,256
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	57.3	57.3	0.00	0.00	—	57.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	38.6	38.6	0.00	0.00	—	38.6
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	204	204	0.00	0.00	—	204
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	0.00	0.00	—	10.5

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	63.0	63.0	0.00	0.00	—	63.0
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	373	373	0.00	0.00	—	373

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	345	345	0.00	0.00	—	345
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	233	233	0.00	0.00	—	233
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,232	1,232	0.00	0.00	—	1,232
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	63.6	63.6	0.00	0.00	—	63.6

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	380	380	0.00	0.00	—	380
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,254	2,254	0.00	0.00	—	2,254
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	345	345	0.00	0.00	—	345
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	233	233	0.00	0.00	—	233
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,232	1,232	0.00	0.00	—	1,232
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	63.6	63.6	0.00	0.00	—	63.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	380	380	0.00	0.00	—	380
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,254	2,254	0.00	0.00	—	2,254

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	57.2	57.2	0.00	0.00	—	57.2
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	38.6	38.6	0.00	0.00	—	38.6
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	204	204	0.00	0.00	—	204
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	0.00	0.00	—	10.5
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	63.0	63.0	0.00	0.00	—	63.0
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	373	373	0.00	0.00	—	373

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	0.42	0.21	3.59	1.53	0.02	0.29	—	0.29	0.29	—	0.29	—	4,554	4,554	0.40	0.01	—	4,567
Apartments Low Rise	0.22	0.11	1.84	0.78	0.01	0.15	—	0.15	0.15	—	0.15	—	2,333	2,333	0.21	< 0.005	—	2,340
Single Family Housing	1.13	0.57	9.70	4.13	0.06	0.78	—	0.78	0.78	—	0.78	—	12,306	12,306	1.09	0.02	—	12,340
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.14	0.07	1.29	1.08	0.01	0.10	—	0.10	0.10	—	0.10	—	1,536	1,536	0.14	< 0.005	—	1,540
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.93	0.96	16.6	7.65	0.11	1.33	—	1.33	1.33	—	1.33	—	20,914	20,914	1.85	0.04	—	20,972
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.42	0.21	3.59	1.53	0.02	0.29	—	0.29	0.29	—	0.29	—	4,554	4,554	0.40	0.01	—	4,567
Apartments Low Rise	0.22	0.11	1.84	0.78	0.01	0.15	—	0.15	0.15	—	0.15	—	2,333	2,333	0.21	< 0.005	—	2,340
Single Family Housing	1.13	0.57	9.70	4.13	0.06	0.78	—	0.78	0.78	—	0.78	—	12,306	12,306	1.09	0.02	—	12,340

Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.14	0.07	1.29	1.08	0.01	0.10	—	0.10	0.10	—	0.10	—	1,536	1,536	0.14	< 0.005	—	1,540
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.93	0.96	16.6	7.65	0.11	1.33	—	1.33	1.33	—	1.33	—	20,914	20,914	1.85	0.04	—	20,972
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.08	0.04	0.65	0.28	< 0.005	0.05	—	0.05	0.05	—	0.05	—	754	754	0.07	< 0.005	—	756
Apartments Low Rise	0.04	0.02	0.34	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	386	386	0.03	< 0.005	—	387
Single Family Housing	0.21	0.10	1.77	0.75	0.01	0.14	—	0.14	0.14	—	0.14	—	2,037	2,037	0.18	< 0.005	—	2,043
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.5	30.5	< 0.005	< 0.005	—	30.6
General Office Building	0.03	0.01	0.23	0.20	< 0.005	0.02	—	0.02	0.02	—	0.02	—	254	254	0.02	< 0.005	—	255

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.35	0.18	3.02	1.40	0.02	0.24	—	0.24	0.24	—	0.24	—	3,463	3,463	0.31	0.01	—	3,472

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.42	0.21	3.59	1.53	0.02	0.29	—	0.29	0.29	—	0.29	—	4,554	4,554	0.40	0.01	—	4,567
Apartments Low Rise	0.22	0.11	1.84	0.78	0.01	0.15	—	0.15	0.15	—	0.15	—	2,333	2,333	0.21	< 0.005	—	2,340
Single Family Housing	1.13	0.57	9.70	4.13	0.06	0.78	—	0.78	0.78	—	0.78	—	12,306	12,306	1.09	0.02	—	12,340
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.14	0.07	1.29	1.08	0.01	0.10	—	0.10	0.10	—	0.10	—	1,536	1,536	0.14	< 0.005	—	1,540
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.93	0.96	16.6	7.65	0.11	1.33	—	1.33	1.33	—	1.33	—	20,914	20,914	1.85	0.04	—	20,972
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.42	0.21	3.59	1.53	0.02	0.29	—	0.29	0.29	—	0.29	—	4,554	4,554	0.40	0.01	—	4,567
Apartments Low Rise	0.22	0.11	1.84	0.78	0.01	0.15	—	0.15	0.15	—	0.15	—	2,333	2,333	0.21	< 0.005	—	2,340
Single Family Housing	1.13	0.57	9.70	4.13	0.06	0.78	—	0.78	0.78	—	0.78	—	12,306	12,306	1.09	0.02	—	12,340
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.14	0.07	1.29	1.08	0.01	0.10	—	0.10	0.10	—	0.10	—	1,536	1,536	0.14	< 0.005	—	1,540
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	1.93	0.96	16.6	7.65	0.11	1.33	—	1.33	1.33	—	1.33	—	20,914	20,914	1.85	0.04	—	20,972
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.08	0.04	0.65	0.28	< 0.005	0.05	—	0.05	0.05	—	0.05	—	754	754	0.07	< 0.005	—	756

Apartme Low Rise	0.04	0.02	0.34	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	386	386	0.03	< 0.005	—	387
Single Family Housing	0.21	0.10	1.77	0.75	0.01	0.14	—	0.14	0.14	—	0.14	—	2,037	2,037	0.18	< 0.005	—	2,043
Junior High School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Element ary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.5	30.5	< 0.005	< 0.005	—	30.6
General Office Building	0.03	0.01	0.23	0.20	< 0.005	0.02	—	0.02	0.02	—	0.02	—	254	254	0.02	< 0.005	—	255
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.35	0.18	3.02	1.40	0.02	0.24	—	0.24	0.24	—	0.24	—	3,463	3,463	0.31	0.01	—	3,472

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	4.21	2.11	36.0	15.3	0.23	2.91	—	2.91	2.91	—	2.91	0.00	45,689	45,689	0.86	0.09	—	45,736
Consum er Products	—	84.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	33.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	14.3	13.5	1.35	148	0.01	0.08	—	0.08	0.06	—	0.06	—	407	407	0.02	< 0.005	—	409
Total	18.5	134	37.3	163	0.24	2.99	—	2.99	2.97	—	2.97	0.00	46,096	46,096	0.88	0.09	—	46,145
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	4.21	2.11	36.0	15.3	0.23	2.91	—	2.91	2.91	—	2.91	0.00	45,689	45,689	0.86	0.09	—	45,736
Consumer Products	—	84.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	33.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4.21	120	36.0	15.3	0.23	2.91	—	2.91	2.91	—	2.91	0.00	45,689	45,689	0.86	0.09	—	45,736
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.17	0.09	1.48	0.63	0.01	0.12	—	0.12	0.12	—	0.12	0.00	1,699	1,699	0.03	< 0.005	—	1,701
Consumer Products	—	15.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	6.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.29	1.22	0.12	13.3	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.3	33.3	< 0.005	< 0.005	—	33.4
Total	1.46	22.9	1.60	13.9	0.01	0.13	—	0.13	0.12	—	0.12	0.00	1,733	1,733	0.03	< 0.005	—	1,735

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	4.21	2.11	36.0	15.3	0.23	2.91	—	2.91	2.91	—	2.91	0.00	45,689	45,689	0.86	0.09	—	45,736
Consumer Products	—	84.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	33.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	14.3	13.5	1.35	148	0.01	0.08	—	0.08	0.06	—	0.06	—	407	407	0.02	< 0.005	—	409
Total	18.5	134	37.3	163	0.24	2.99	—	2.99	2.97	—	2.97	0.00	46,096	46,096	0.88	0.09	—	46,145
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	4.21	2.11	36.0	15.3	0.23	2.91	—	2.91	2.91	—	2.91	0.00	45,689	45,689	0.86	0.09	—	45,736
Consumer Products	—	84.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	33.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4.21	120	36.0	15.3	0.23	2.91	—	2.91	2.91	—	2.91	0.00	45,689	45,689	0.86	0.09	—	45,736
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.17	0.09	1.48	0.63	0.01	0.12	—	0.12	0.12	—	0.12	0.00	1,699	1,699	0.03	< 0.005	—	1,701
Consumer Products	—	15.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	6.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.29	1.22	0.12	13.3	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.3	33.3	< 0.005	< 0.005	—	33.4
Total	1.46	22.9	1.60	13.9	0.01	0.13	—	0.13	0.12	—	0.12	0.00	1,733	1,733	0.03	< 0.005	—	1,735

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	37.5	6.71	44.2	3.85	0.09	—	168
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	29.4	5.25	34.6	3.01	0.07	—	131
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	80.9	50.3	131	8.30	0.20	—	397
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.69	11.2	0.97	0.02	—	42.3

General Office Building	—	—	—	—	—	—	—	—	—	—	—	56.5	10.1	66.7	5.80	0.14	—	253
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	214	74.1	288	21.9	0.52	—	991
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	37.5	6.71	44.2	3.85	0.09	—	168
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	29.4	5.25	34.6	3.01	0.07	—	131
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	80.9	50.3	131	8.30	0.20	—	397
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.69	11.2	0.97	0.02	—	42.3
General Office Building	—	—	—	—	—	—	—	—	—	—	—	56.5	10.1	66.7	5.80	0.14	—	253
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	214	74.1	288	21.9	0.52	—	991

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.21	1.11	7.32	0.64	0.02	—	27.8
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	4.86	0.87	5.73	0.50	0.01	—	21.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	13.4	8.33	21.7	1.37	0.03	—	65.8
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.57	0.28	1.85	0.16	< 0.005	—	7.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	9.36	1.68	11.0	0.96	0.02	—	41.8
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	35.4	12.3	47.7	3.63	0.09	—	164

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	37.5	6.71	44.2	3.85	0.09	—	168
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	29.4	5.25	34.6	3.01	0.07	—	131
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	80.9	50.3	131	8.30	0.20	—	397
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.69	11.2	0.97	0.02	—	42.3
General Office Building	—	—	—	—	—	—	—	—	—	—	—	56.5	10.1	66.7	5.80	0.14	—	253
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	214	74.1	288	21.9	0.52	—	991
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	37.5	6.71	44.2	3.85	0.09	—	168
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	29.4	5.25	34.6	3.01	0.07	—	131
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	80.9	50.3	131	8.30	0.20	—	397

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.69	11.2	0.97	0.02	—	42.3
General Office Building	—	—	—	—	—	—	—	—	—	—	—	56.5	10.1	66.7	5.80	0.14	—	253
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	214	74.1	288	21.9	0.52	—	991
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.21	1.11	7.32	0.64	0.02	—	27.8
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	4.86	0.87	5.73	0.50	0.01	—	21.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	13.4	8.33	21.7	1.37	0.03	—	65.8
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.57	0.28	1.85	0.16	< 0.005	—	7.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	9.36	1.68	11.0	0.96	0.02	—	41.8

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	35.4	12.3	47.7	3.63	0.09	—	164

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	244	0.00	244	24.4	0.00	—	853
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	191	0.00	191	19.1	0.00	—	668
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	396	0.00	396	39.6	0.00	—	1,387
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	83.2	0.00	83.2	8.32	0.00	—	291

City Park	—	—	—	—	—	—	—	—	—	—	—	1.21	0.00	1.21	0.12	0.00	—	4.22
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	953	0.00	953	95.3	0.00	—	3,335
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	244	0.00	244	24.4	0.00	—	853
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	191	0.00	191	19.1	0.00	—	668
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	396	0.00	396	39.6	0.00	—	1,387
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	83.2	0.00	83.2	8.32	0.00	—	291
City Park	—	—	—	—	—	—	—	—	—	—	—	1.21	0.00	1.21	0.12	0.00	—	4.22
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	953	0.00	953	95.3	0.00	—	3,335
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	40.4	0.00	40.4	4.03	0.00	—	141
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	31.6	0.00	31.6	3.16	0.00	—	111
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	65.6	0.00	65.6	6.56	0.00	—	230
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.25	0.00	6.25	0.62	0.00	—	21.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	13.8	0.00	13.8	1.38	0.00	—	48.2
City Park	—	—	—	—	—	—	—	—	—	—	—	0.20	0.00	0.20	0.02	0.00	—	0.70
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	158	0.00	158	15.8	0.00	—	552

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	244	0.00	244	24.4	0.00	—	853
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	191	0.00	191	19.1	0.00	—	668
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	396	0.00	396	39.6	0.00	—	1,387
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	83.2	0.00	83.2	8.32	0.00	—	291
City Park	—	—	—	—	—	—	—	—	—	—	—	1.21	0.00	1.21	0.12	0.00	—	4.22
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	953	0.00	953	95.3	0.00	—	3,335
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	244	0.00	244	24.4	0.00	—	853
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	191	0.00	191	19.1	0.00	—	668
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	396	0.00	396	39.6	0.00	—	1,387

Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	83.2	0.00	83.2	8.32	0.00	—	291
City Park	—	—	—	—	—	—	—	—	—	—	—	1.21	0.00	1.21	0.12	0.00	—	4.22
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	953	0.00	953	95.3	0.00	—	3,335
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	40.4	0.00	40.4	4.03	0.00	—	141
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	31.6	0.00	31.6	3.16	0.00	—	111
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	65.6	0.00	65.6	6.56	0.00	—	230
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.25	0.00	6.25	0.62	0.00	—	21.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	13.8	0.00	13.8	1.38	0.00	—	48.2

City Park	—	—	—	—	—	—	—	—	—	—	—	0.20	0.00	0.20	0.02	0.00	—	0.70
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	158	0.00	158	15.8	0.00	—	552

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.65	4.65
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.4	18.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40

City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.5	27.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.65	4.65
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.4	18.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.5	27.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.77	0.77
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.60	0.60

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.05	3.05
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.56	4.56

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.65	4.65
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.4	18.4

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.5	27.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.65	4.65
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.64	3.64
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	18.4	18.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.5	27.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.77	0.77
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.60	0.60
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.05	3.05
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.56	4.56

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	25,790	25,790	25,790	9,413,246	127,508	127,508	127,508	46,540,389

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	25,790	25,790	25,790	9,413,246	127,508	127,508	127,508	46,540,389

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	551
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	431
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1188

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	551
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	431
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1188
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
7554181.5	2,518,061	349,002	116,334	28,750

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,157,407	40.0	0.0000	0.0000	14,210,606
Apartments Low Rise	2,129,092	40.0	0.0000	0.0000	7,280,384
Single Family Housing	11,253,936	40.0	0.0000	0.0000	38,398,834
Junior High School	0.00	40.0	0.0000	0.0000	0.00
Elementary School	0.00	40.0	0.0000	0.0000	0.00
Strip Mall	580,817	40.0	0.0000	0.0000	575,052
General Office Building	3,474,270	40.0	0.0000	0.0000	4,792,257
City Park	0.00	40.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	40.0	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,154,391	40.0	0.0000	0.0000	14,210,606
Apartments Low Rise	2,127,910	40.0	0.0000	0.0000	7,280,384
Single Family Housing	11,246,338	40.0	0.0000	0.0000	38,398,834
Junior High School	0.00	40.0	0.0000	0.0000	0.00
Elementary School	0.00	40.0	0.0000	0.0000	0.00
Strip Mall	580,817	40.0	0.0000	0.0000	575,052
General Office Building	3,474,270	40.0	0.0000	0.0000	4,792,257

City Park	0.00	40.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	40.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	19,574,789	0.00
Apartments Low Rise	15,320,791	0.00
Single Family Housing	42,220,134	202,795,279
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	4,938,267	0.00
General Office Building	29,503,802	0.00
City Park	0.00	620
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	19,574,789	0.00
Apartments Low Rise	15,320,791	0.00
Single Family Housing	42,220,134	202,795,279
Junior High School	0.00	0.00
Elementary School	0.00	0.00
Strip Mall	4,938,267	0.00
General Office Building	29,503,802	0.00
City Park	0.00	620

Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	452	—
Apartments Low Rise	354	—
Single Family Housing	736	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	70.0	—
General Office Building	154	—
City Park	2.24	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	452	—
Apartments Low Rise	354	—
Single Family Housing	736	—
Junior High School	0.00	—
Elementary School	0.00	—
Strip Mall	70.0	—
General Office Building	154	—
City Park	2.24	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9

AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—

Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8

Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team

MV OP 12 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 12
Operational Year	2038
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	647	Dwelling Unit	75.0	685,820	0.00	—	1,643	—

Apartments Low Rise	551	Dwelling Unit	28.0	584,060	0.00	—	1,400	—
Single Family Housing	1,430	Dwelling Unit	499	2,788,500	16,749,386	—	3,632	—
Junior High School	779	Student	19.0	91,581	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	66.7	1000sqft	1.53	66,668	0.00	—	—	—
General Office Building	208	1000sqft	4.78	208,335	0.00	—	—	—
City Park	26.0	Acre	26.0	0.00	26.0	26.0	—	—
Other Asphalt Surfaces	11.0	Acre	11.0	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	118	241	99.3	680	1.47	5.40	108	113	5.34	27.4	32.8	1,372	187,787	189,159	145	5.33	137	194,520
Mit.	118	241	99.3	680	1.47	5.40	108	113	5.34	27.4	32.8	1,372	187,786	189,158	145	5.33	137	194,518
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	94.6	218	105	487	1.38	5.31	108	113	5.27	27.4	32.7	1,372	179,017	180,389	146	5.82	33.1	185,814
Mit.	94.6	218	105	487	1.38	5.31	108	113	5.27	27.4	32.7	1,372	179,016	180,388	146	5.82	33.1	185,813
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	99.2	224	72.7	545	1.21	2.90	107	110	2.85	27.2	30.1	1,372	142,238	143,610	145	5.56	76.4	148,973
Mit.	99.2	224	72.7	545	1.21	2.90	107	110	2.85	27.2	30.1	1,372	142,237	143,609	145	5.56	76.4	148,972
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	18.1	41.0	13.3	99.4	0.22	0.53	19.6	20.1	0.52	4.97	5.49	227	23,549	23,776	24.0	0.92	12.6	24,664
Mit.	18.1	41.0	13.3	99.4	0.22	0.53	19.6	20.1	0.52	4.97	5.49	227	23,549	23,776	24.0	0.92	12.6	24,664
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	94.3	90.0	39.4	488	1.09	0.59	108	109	0.56	27.4	28.0	—	111,002	111,002	4.59	4.59	107	112,590
Area	21.1	150	40.7	182	0.26	3.27	—	3.27	3.24	—	3.24	0.00	50,266	50,266	0.96	0.10	—	50,319
Energy	2.23	1.12	19.2	9.36	0.12	1.54	—	1.54	1.54	—	1.54	—	26,447	26,447	2.14	0.05	—	26,514
Water	—	—	—	—	—	—	—	—	—	—	—	245	72.3	317	25.1	0.60	—	1,124

Waste	—	—	—	—	—	—	—	—	—	—	—	1,127	0.00	1,127	113	0.00	—	3,942
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30.3	30.3
Total	118	241	99.3	680	1.47	5.40	108	113	5.34	27.4	32.8	1,372	187,787	189,159	145	5.33	137	194,520
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	87.8	83.1	46.5	461	1.01	0.59	108	109	0.56	27.4	28.0	—	102,696	102,696	5.43	5.09	2.77	104,351
Area	4.59	134	39.2	16.7	0.25	3.17	—	3.17	3.17	—	3.17	0.00	49,801	49,801	0.94	0.09	—	49,853
Energy	2.23	1.12	19.2	9.36	0.12	1.54	—	1.54	1.54	—	1.54	—	26,447	26,447	2.14	0.05	—	26,514
Water	—	—	—	—	—	—	—	—	—	—	—	245	72.3	317	25.1	0.60	—	1,124
Waste	—	—	—	—	—	—	—	—	—	—	—	1,127	0.00	1,127	113	0.00	—	3,942
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30.3	30.3
Total	94.6	218	105	487	1.38	5.31	108	113	5.27	27.4	32.7	1,372	179,017	180,389	146	5.82	33.1	185,814
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	87.8	83.3	43.9	450	1.03	0.59	107	108	0.56	27.2	27.8	—	104,302	104,302	5.09	4.89	46.1	105,933
Area	9.16	140	9.56	85.5	0.06	0.76	—	0.76	0.75	—	0.75	0.00	11,417	11,417	0.22	0.02	—	11,430
Energy	2.23	1.12	19.2	9.36	0.12	1.54	—	1.54	1.54	—	1.54	—	26,447	26,447	2.14	0.05	—	26,514
Water	—	—	—	—	—	—	—	—	—	—	—	245	72.3	317	25.1	0.60	—	1,124
Waste	—	—	—	—	—	—	—	—	—	—	—	1,127	0.00	1,127	113	0.00	—	3,942
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30.3	30.3
Total	99.2	224	72.7	545	1.21	2.90	107	110	2.85	27.2	30.1	1,372	142,238	143,610	145	5.56	76.4	148,973
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	16.0	15.2	8.01	82.1	0.19	0.11	19.6	19.7	0.10	4.97	5.07	—	17,268	17,268	0.84	0.81	7.63	17,538
Area	1.67	25.6	1.74	15.6	0.01	0.14	—	0.14	0.14	—	0.14	0.00	1,890	1,890	0.04	< 0.005	—	1,892
Energy	0.41	0.20	3.51	1.71	0.02	0.28	—	0.28	0.28	—	0.28	—	4,379	4,379	0.35	0.01	—	4,390
Water	—	—	—	—	—	—	—	—	—	—	—	40.6	12.0	52.6	4.16	0.10	—	186
Waste	—	—	—	—	—	—	—	—	—	—	—	187	0.00	187	18.6	0.00	—	653
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.02	5.02

Total	18.1	41.0	13.3	99.4	0.22	0.53	19.6	20.1	0.52	4.97	5.49	227	23,549	23,776	24.0	0.92	12.6	24,664

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	94.3	90.0	39.4	488	1.09	0.59	108	109	0.56	27.4	28.0	—	111,002	111,002	4.59	4.59	107	112,590
Area	21.1	150	40.7	182	0.26	3.27	—	3.27	3.24	—	3.24	0.00	50,266	50,266	0.96	0.10	—	50,319
Energy	2.23	1.12	19.2	9.36	0.12	1.54	—	1.54	1.54	—	1.54	—	26,446	26,446	2.14	0.05	—	26,513
Water	—	—	—	—	—	—	—	—	—	—	—	245	72.3	317	25.1	0.60	—	1,124
Waste	—	—	—	—	—	—	—	—	—	—	—	1,127	0.00	1,127	113	0.00	—	3,942
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30.3	30.3
Total	118	241	99.3	680	1.47	5.40	108	113	5.34	27.4	32.8	1,372	187,786	189,158	145	5.33	137	194,518
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	87.8	83.1	46.5	461	1.01	0.59	108	109	0.56	27.4	28.0	—	102,696	102,696	5.43	5.09	2.77	104,351
Area	4.59	134	39.2	16.7	0.25	3.17	—	3.17	3.17	—	3.17	0.00	49,801	49,801	0.94	0.09	—	49,853
Energy	2.23	1.12	19.2	9.36	0.12	1.54	—	1.54	1.54	—	1.54	—	26,446	26,446	2.14	0.05	—	26,513
Water	—	—	—	—	—	—	—	—	—	—	—	245	72.3	317	25.1	0.60	—	1,124
Waste	—	—	—	—	—	—	—	—	—	—	—	1,127	0.00	1,127	113	0.00	—	3,942
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30.3	30.3
Total	94.6	218	105	487	1.38	5.31	108	113	5.27	27.4	32.7	1,372	179,016	180,388	146	5.82	33.1	185,813
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	87.8	83.3	43.9	450	1.03	0.59	107	108	0.56	27.2	27.8	—	104,302	104,302	5.09	4.89	46.1	105,933
Area	9.16	140	9.56	85.5	0.06	0.76	—	0.76	0.75	—	0.75	0.00	11,417	11,417	0.22	0.02	—	11,430

Energy	2.23	1.12	19.2	9.36	0.12	1.54	—	1.54	1.54	—	1.54	—	26,446	26,446	2.14	0.05	—	26,513
Water	—	—	—	—	—	—	—	—	—	—	—	245	72.3	317	25.1	0.60	—	1,124
Waste	—	—	—	—	—	—	—	—	—	—	—	1,127	0.00	1,127	113	0.00	—	3,942
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30.3	30.3
Total	99.2	224	72.7	545	1.21	2.90	107	110	2.85	27.2	30.1	1,372	142,237	143,609	145	5.56	76.4	148,972
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	16.0	15.2	8.01	82.1	0.19	0.11	19.6	19.7	0.10	4.97	5.07	—	17,268	17,268	0.84	0.81	7.63	17,538
Area	1.67	25.6	1.74	15.6	0.01	0.14	—	0.14	0.14	—	0.14	0.00	1,890	1,890	0.04	< 0.005	—	1,892
Energy	0.41	0.20	3.51	1.71	0.02	0.28	—	0.28	0.28	—	0.28	—	4,378	4,378	0.35	0.01	—	4,390
Water	—	—	—	—	—	—	—	—	—	—	—	40.6	12.0	52.6	4.16	0.10	—	186
Waste	—	—	—	—	—	—	—	—	—	—	—	187	0.00	187	18.6	0.00	—	653
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.02	5.02
Total	18.1	41.0	13.3	99.4	0.22	0.53	19.6	20.1	0.52	4.97	5.49	227	23,549	23,776	24.0	0.92	12.6	24,664

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	320	320	0.00	0.00	—	320
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	235	235	0.00	0.00	—	235
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,168	1,168	0.00	0.00	—	1,168
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	40.2	40.2	0.00	0.00	—	40.2
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	55.7	55.7	0.00	0.00	—	55.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	418	418	0.00	0.00	—	418
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,237	2,237	0.00	0.00	—	2,237
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	320	320	0.00	0.00	—	320
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	235	235	0.00	0.00	—	235

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,168	1,168	0.00	0.00	—	1,168
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	40.2	40.2	0.00	0.00	—	40.2
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	55.7	55.7	0.00	0.00	—	55.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	418	418	0.00	0.00	—	418
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,237	2,237	0.00	0.00	—	2,237
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	53.0	53.0	0.00	0.00	—	53.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	38.9	38.9	0.00	0.00	—	38.9
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	193	193	0.00	0.00	—	193
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	6.66	6.66	0.00	0.00	—	6.66
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	9.22	9.22	0.00	0.00	—	9.22

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	69.2	69.2	0.00	0.00	—	69.2
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	370	370	0.00	0.00	—	370

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	320	320	0.00	0.00	—	320
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	235	235	0.00	0.00	—	235
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,168	1,168	0.00	0.00	—	1,168
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	40.2	40.2	0.00	0.00	—	40.2
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	55.7	55.7	0.00	0.00	—	55.7

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	418	418	0.00	0.00	—	418
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,235	2,235	0.00	0.00	—	2,235
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	320	320	0.00	0.00	—	320
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	235	235	0.00	0.00	—	235
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,168	1,168	0.00	0.00	—	1,168
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	40.2	40.2	0.00	0.00	—	40.2
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	55.7	55.7	0.00	0.00	—	55.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	418	418	0.00	0.00	—	418
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,235	2,235	0.00	0.00	—	2,235

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	52.9	52.9	0.00	0.00	—	52.9
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	38.8	38.8	0.00	0.00	—	38.8
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	193	193	0.00	0.00	—	193
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	6.66	6.66	0.00	0.00	—	6.66
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	9.22	9.22	0.00	0.00	—	9.22
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	69.2	69.2	0.00	0.00	—	69.2
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	370	370	0.00	0.00	—	370

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	0.44	0.22	3.79	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,815	4,815	0.43	0.01	—	4,828
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.23	0.61	10.5	4.47	0.07	0.85	—	0.85	0.85	—	0.85	—	13,332	13,332	1.18	0.03	—	13,369
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.18	0.09	1.62	1.36	0.01	0.12	—	0.12	0.12	—	0.12	—	1,928	1,928	0.17	< 0.005	—	1,933
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.23	1.12	19.2	9.36	0.12	1.54	—	1.54	1.54	—	1.54	—	24,211	24,211	2.14	0.05	—	24,278
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.44	0.22	3.79	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,815	4,815	0.43	0.01	—	4,828
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.23	0.61	10.5	4.47	0.07	0.85	—	0.85	0.85	—	0.85	—	13,332	13,332	1.18	0.03	—	13,369

Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.18	0.09	1.62	1.36	0.01	0.12	—	0.12	0.12	—	0.12	—	1,928	1,928	0.17	< 0.005	—	1,933
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.23	1.12	19.2	9.36	0.12	1.54	—	1.54	1.54	—	1.54	—	24,211	24,211	2.14	0.05	—	24,278
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.08	0.04	0.69	0.29	< 0.005	0.06	—	0.06	0.06	—	0.06	—	797	797	0.07	< 0.005	—	799
Apartments Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.22	0.11	1.92	0.82	0.01	0.15	—	0.15	0.15	—	0.15	—	2,207	2,207	0.20	< 0.005	—	2,213
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.5	30.5	< 0.005	< 0.005	—	30.6
General Office Building	0.03	0.02	0.29	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	—	319	319	0.03	< 0.005	—	320

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.41	0.20	3.51	1.71	0.02	0.28	—	0.28	0.28	—	0.28	—	4,008	4,008	0.35	0.01	—	4,019

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.44	0.22	3.79	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,815	4,815	0.43	0.01	—	4,828
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.23	0.61	10.5	4.47	0.07	0.85	—	0.85	0.85	—	0.85	—	13,332	13,332	1.18	0.03	—	13,369
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.18	0.09	1.62	1.36	0.01	0.12	—	0.12	0.12	—	0.12	—	1,928	1,928	0.17	< 0.005	—	1,933
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.23	1.12	19.2	9.36	0.12	1.54	—	1.54	1.54	—	1.54	—	24,211	24,211	2.14	0.05	—	24,278
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.44	0.22	3.79	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,815	4,815	0.43	0.01	—	4,828
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.23	0.61	10.5	4.47	0.07	0.85	—	0.85	0.85	—	0.85	—	13,332	13,332	1.18	0.03	—	13,369
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.18	0.09	1.62	1.36	0.01	0.12	—	0.12	0.12	—	0.12	—	1,928	1,928	0.17	< 0.005	—	1,933
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.23	1.12	19.2	9.36	0.12	1.54	—	1.54	1.54	—	1.54	—	24,211	24,211	2.14	0.05	—	24,278
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.08	0.04	0.69	0.29	< 0.005	0.06	—	0.06	0.06	—	0.06	—	797	797	0.07	< 0.005	—	799

Apartme Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.22	0.11	1.92	0.82	0.01	0.15	—	0.15	0.15	—	0.15	—	2,207	2,207	0.20	< 0.005	—	2,213
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211
Element ary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.5	30.5	< 0.005	< 0.005	—	30.6
General Office Building	0.03	0.02	0.29	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	—	319	319	0.03	< 0.005	—	320
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.41	0.20	3.51	1.71	0.02	0.28	—	0.28	0.28	—	0.28	—	4,008	4,008	0.35	0.01	—	4,019

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	4.59	2.30	39.2	16.7	0.25	3.17	—	3.17	3.17	—	3.17	0.00	49,801	49,801	0.94	0.09	—	49,853
Consum er Products	—	94.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	37.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	16.5	15.5	1.51	166	0.01	0.09	—	0.09	0.07	—	0.07	—	464	464	0.02	< 0.005	—	466
Total	21.1	150	40.7	182	0.26	3.27	—	3.27	3.24	—	3.24	0.00	50,266	50,266	0.96	0.10	—	50,319
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	4.59	2.30	39.2	16.7	0.25	3.17	—	3.17	3.17	—	3.17	0.00	49,801	49,801	0.94	0.09	—	49,853
Consumer Products	—	94.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	37.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4.59	134	39.2	16.7	0.25	3.17	—	3.17	3.17	—	3.17	0.00	49,801	49,801	0.94	0.09	—	49,853
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.19	0.09	1.61	0.68	0.01	0.13	—	0.13	0.13	—	0.13	0.00	1,852	1,852	0.03	< 0.005	—	1,854
Consumer Products	—	17.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	6.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.48	1.40	0.14	14.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	37.9	37.9	< 0.005	< 0.005	—	38.0
Total	1.67	25.6	1.74	15.6	0.01	0.14	—	0.14	0.14	—	0.14	0.00	1,890	1,890	0.04	< 0.005	—	1,892

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	4.59	2.30	39.2	16.7	0.25	3.17	—	3.17	3.17	—	3.17	0.00	49,801	49,801	0.94	0.09	—	49,853
Consumer Products	—	94.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	37.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	16.5	15.5	1.51	166	0.01	0.09	—	0.09	0.07	—	0.07	—	464	464	0.02	< 0.005	—	466
Total	21.1	150	40.7	182	0.26	3.27	—	3.27	3.24	—	3.24	0.00	50,266	50,266	0.96	0.10	—	50,319
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	4.59	2.30	39.2	16.7	0.25	3.17	—	3.17	3.17	—	3.17	0.00	49,801	49,801	0.94	0.09	—	49,853
Consumer Products	—	94.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	37.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4.59	134	39.2	16.7	0.25	3.17	—	3.17	3.17	—	3.17	0.00	49,801	49,801	0.94	0.09	—	49,853
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.19	0.09	1.61	0.68	0.01	0.13	—	0.13	0.13	—	0.13	0.00	1,852	1,852	0.03	< 0.005	—	1,854
Consumer Products	—	17.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	6.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.48	1.40	0.14	14.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	37.9	37.9	< 0.005	< 0.005	—	38.0
Total	1.67	25.6	1.74	15.6	0.01	0.14	—	0.14	0.14	—	0.14	0.00	1,890	1,890	0.04	< 0.005	—	1,892

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	39.7	6.21	45.9	4.07	0.10	—	176
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	5.29	39.1	3.46	0.08	—	150
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	87.6	47.7	135	8.99	0.21	—	424
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.57	4.19	0.37	0.01	—	16.1
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.48	10.9	0.97	0.02	—	42.1

General Office Building	—	—	—	—	—	—	—	—	—	—	—	71.0	11.1	82.1	7.28	0.17	—	315
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	245	72.3	317	25.1	0.60	—	1,124
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	39.7	6.21	45.9	4.07	0.10	—	176
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	5.29	39.1	3.46	0.08	—	150
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	87.6	47.7	135	8.99	0.21	—	424
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.57	4.19	0.37	0.01	—	16.1
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.48	10.9	0.97	0.02	—	42.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	71.0	11.1	82.1	7.28	0.17	—	315
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	245	72.3	317	25.1	0.60	—	1,124

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.57	1.03	7.59	0.67	0.02	—	29.2
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	5.59	0.88	6.47	0.57	0.01	—	24.9
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.5	7.89	22.4	1.49	0.04	—	70.1
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.60	0.09	0.69	0.06	< 0.005	—	2.66
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.57	0.25	1.81	0.16	< 0.005	—	6.97
General Office Building	—	—	—	—	—	—	—	—	—	—	—	11.7	1.84	13.6	1.20	0.03	—	52.2
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	40.6	12.0	52.6	4.16	0.10	—	186

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	39.7	6.21	45.9	4.07	0.10	—	176
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	5.29	39.1	3.46	0.08	—	150
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	87.6	47.7	135	8.99	0.21	—	424
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.57	4.19	0.37	0.01	—	16.1
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.48	10.9	0.97	0.02	—	42.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	71.0	11.1	82.1	7.28	0.17	—	315
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	245	72.3	317	25.1	0.60	—	1,124
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	39.7	6.21	45.9	4.07	0.10	—	176
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	5.29	39.1	3.46	0.08	—	150
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	87.6	47.7	135	8.99	0.21	—	424

Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.57	4.19	0.37	0.01	—	16.1
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.48	10.9	0.97	0.02	—	42.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	71.0	11.1	82.1	7.28	0.17	—	315
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	245	72.3	317	25.1	0.60	—	1,124
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.57	1.03	7.59	0.67	0.02	—	29.2
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	5.59	0.88	6.47	0.57	0.01	—	24.9
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	14.5	7.89	22.4	1.49	0.04	—	70.1
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.60	0.09	0.69	0.06	< 0.005	—	2.66
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.57	0.25	1.81	0.16	< 0.005	—	6.97
General Office Building	—	—	—	—	—	—	—	—	—	—	—	11.7	1.84	13.6	1.20	0.03	—	52.2

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	40.6	12.0	52.6	4.16	0.10	—	186

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	258	0.00	258	25.8	0.00	—	902
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	429	0.00	429	42.9	0.00	—	1,502
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	104	0.00	104	10.4	0.00	—	365

City Park	—	—	—	—	—	—	—	—	—	—	—	1.21	0.00	1.21	0.12	0.00	—	4.22
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,127	0.00	1,127	113	0.00	—	3,942
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	258	0.00	258	25.8	0.00	—	902
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	429	0.00	429	42.9	0.00	—	1,502
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	104	0.00	104	10.4	0.00	—	365
City Park	—	—	—	—	—	—	—	—	—	—	—	1.21	0.00	1.21	0.12	0.00	—	4.22
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,127	0.00	1,127	113	0.00	—	3,942
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	42.7	0.00	42.7	4.27	0.00	—	149
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	71.1	0.00	71.1	7.11	0.00	—	249
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.25	0.00	6.25	0.62	0.00	—	21.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	17.3	0.00	17.3	1.73	0.00	—	60.5
City Park	—	—	—	—	—	—	—	—	—	—	—	0.20	0.00	0.20	0.02	0.00	—	0.70
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	187	0.00	187	18.6	0.00	—	653

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	258	0.00	258	25.8	0.00	—	902
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	429	0.00	429	42.9	0.00	—	1,502
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	104	0.00	104	10.4	0.00	—	365
City Park	—	—	—	—	—	—	—	—	—	—	—	1.21	0.00	1.21	0.12	0.00	—	4.22
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,127	0.00	1,127	113	0.00	—	3,942
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	258	0.00	258	25.8	0.00	—	902
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	429	0.00	429	42.9	0.00	—	1,502

Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	104	0.00	104	10.4	0.00	—	365
City Park	—	—	—	—	—	—	—	—	—	—	—	1.21	0.00	1.21	0.12	0.00	—	4.22
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,127	0.00	1,127	113	0.00	—	3,942
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	42.7	0.00	42.7	4.27	0.00	—	149
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	71.1	0.00	71.1	7.11	0.00	—	249
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.25	0.00	6.25	0.62	0.00	—	21.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	17.3	0.00	17.3	1.73	0.00	—	60.5

City Park	—	—	—	—	—	—	—	—	—	—	—	0.20	0.00	0.20	0.02	0.00	—	0.70
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	187	0.00	187	18.6	0.00	—	653

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.91	4.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20.0	20.0
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.51	0.51

City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30.3	30.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.91	4.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20.0	20.0
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.51	0.51
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30.3	30.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.31	3.31
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.02	5.02

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.91	4.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20.0	20.0

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.51	0.51
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30.3	30.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.91	4.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20.0	20.0
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.51	0.51
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30.3	30.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.31	3.31
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.02	5.02

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	28,636	28,636	28,636	10,452,118	152,344	152,344	152,344	55,605,468

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	28,636	28,636	28,636	10,452,118	152,344	152,344	152,344	55,605,468

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	582
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	496
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1287

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	582
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	496
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1287
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
8218219.5	2,739,407	549,876	183,292	28,750

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,337,978	35.0	0.0000	0.0000	15,023,304
Apartments Low Rise	2,449,123	35.0	0.0000	0.0000	8,374,722
Single Family Housing	12,191,764	35.0	0.0000	0.0000	41,598,736
Junior High School	419,734	35.0	0.0000	0.0000	3,957,049
Elementary School	0.00	35.0	0.0000	0.0000	0.00
Strip Mall	580,817	35.0	0.0000	0.0000	575,052
General Office Building	4,360,313	35.0	0.0000	0.0000	6,014,427
City Park	0.00	35.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	35.0	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,334,789	35.0	0.0000	0.0000	15,023,304
Apartments Low Rise	2,447,762	35.0	0.0000	0.0000	8,374,722
Single Family Housing	12,183,533	35.0	0.0000	0.0000	41,598,736
Junior High School	419,734	35.0	0.0000	0.0000	3,957,049
Elementary School	0.00	35.0	0.0000	0.0000	0.00
Strip Mall	580,817	35.0	0.0000	0.0000	575,052
General Office Building	4,360,313	35.0	0.0000	0.0000	6,014,427

City Park	0.00	35.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	35.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	20,694,263	0.00
Apartments Low Rise	17,623,707	0.00
Single Family Housing	45,738,479	219,694,896
Junior High School	1,888,483	0.00
Elementary School	0.00	0.00
Strip Mall	4,938,267	0.00
General Office Building	37,028,160	0.00
City Park	0.00	620
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	20,694,263	0.00
Apartments Low Rise	17,623,707	0.00
Single Family Housing	45,738,479	219,694,896
Junior High School	1,888,483	0.00
Elementary School	0.00	0.00
Strip Mall	4,938,267	0.00
General Office Building	37,028,160	0.00
City Park	0.00	620

Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	478	—
Apartments Low Rise	408	—
Single Family Housing	797	—
Junior High School	142	—
Elementary School	0.00	—
Strip Mall	70.0	—
General Office Building	194	—
City Park	2.24	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	478	—
Apartments Low Rise	408	—
Single Family Housing	797	—
Junior High School	142	—
Elementary School	0.00	—
Strip Mall	70.0	—
General Office Building	194	—
City Park	2.24	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9

AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—

Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8

Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team

MV OP 13 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 13
Operational Year	2039
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	647	Dwelling Unit	75.0	685,820	0.00	—	1,643	—

Apartments Low Rise	551	Dwelling Unit	28.0	584,060	0.00	—	1,400	—
Single Family Housing	1,540	Dwelling Unit	537	3,003,000	18,037,800	—	3,912	—
Junior High School	779	Student	19.0	91,581	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	66.7	1000sqft	1.53	66,668	0.00	—	—	—
General Office Building	250	1000sqft	5.74	250,002	0.00	—	—	—
City Park	32.0	Acre	32.0	0.00	32.0	32.0	—	—
Other Asphalt Surfaces	11.0	Acre	11.0	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	122	252	102	702	1.52	5.61	112	118	5.55	28.5	34.0	1,447	194,227	195,674	153	5.49	128	201,271
Mit.	122	252	102	702	1.52	5.61	112	118	5.55	28.5	34.0	1,447	194,225	195,673	153	5.49	128	201,270
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	98.0	229	108	501	1.43	5.51	112	118	5.48	28.5	33.9	1,447	185,152	186,599	154	6.01	34.5	192,277
Mit.	98.0	229	108	501	1.43	5.51	112	118	5.48	28.5	33.9	1,447	185,151	186,598	154	6.01	34.5	192,276
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	103	235	74.2	562	1.25	3.00	111	114	2.95	28.3	31.2	1,447	146,823	148,270	153	5.73	73.6	153,877
Mit.	103	235	74.2	562	1.25	3.00	111	114	2.95	28.3	31.2	1,447	146,822	148,269	153	5.73	73.6	153,876
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	18.8	43.0	13.5	102	0.23	0.55	20.3	20.9	0.54	5.16	5.70	240	24,308	24,548	25.3	0.95	12.2	25,476
Mit.	18.8	43.0	13.5	102	0.23	0.55	20.3	20.9	0.54	5.16	5.70	240	24,308	24,548	25.3	0.95	12.2	25,476
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	97.3	93.0	39.3	501	1.12	0.58	112	113	0.54	28.5	29.0	—	114,098	114,098	4.71	4.69	96.3	115,710
Area	22.2	158	42.5	191	0.27	3.41	—	3.41	3.38	—	3.38	0.00	52,374	52,374	1.00	0.10	—	52,430
Energy	2.36	1.18	20.4	9.98	0.13	1.63	—	1.63	1.63	—	1.63	—	27,687	27,687	2.27	0.05	—	27,758
Water	—	—	—	—	—	—	—	—	—	—	—	266	67.1	333	27.3	0.65	—	1,208

Waste	—	—	—	—	—	—	—	—	—	—	—	1,181	0.00	1,181	118	0.00	—	4,132
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.0	32.0
Total	122	252	102	702	1.52	5.61	112	118	5.55	28.5	34.0	1,447	194,227	195,674	153	5.49	128	201,271
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	90.8	86.1	46.5	474	1.04	0.58	112	113	0.54	28.5	29.0	—	105,511	105,511	5.57	5.21	2.50	107,207
Area	4.78	142	40.9	17.4	0.26	3.30	—	3.30	3.30	—	3.30	0.00	51,886	51,886	0.98	0.10	—	51,939
Energy	2.36	1.18	20.4	9.98	0.13	1.63	—	1.63	1.63	—	1.63	—	27,687	27,687	2.27	0.05	—	27,758
Water	—	—	—	—	—	—	—	—	—	—	—	266	67.1	333	27.3	0.65	—	1,208
Waste	—	—	—	—	—	—	—	—	—	—	—	1,181	0.00	1,181	118	0.00	—	4,132
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.0	32.0
Total	98.0	229	108	501	1.43	5.51	112	118	5.48	28.5	33.9	1,447	185,152	186,599	154	6.01	34.5	192,277
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	90.8	86.2	43.9	462	1.05	0.58	111	112	0.54	28.3	28.8	—	107,171	107,171	5.22	5.01	41.6	108,836
Area	9.65	148	9.96	89.7	0.06	0.79	—	0.79	0.78	—	0.78	0.00	11,897	11,897	0.23	0.02	—	11,910
Energy	2.36	1.18	20.4	9.98	0.13	1.63	—	1.63	1.63	—	1.63	—	27,687	27,687	2.27	0.05	—	27,758
Water	—	—	—	—	—	—	—	—	—	—	—	266	67.1	333	27.3	0.65	—	1,208
Waste	—	—	—	—	—	—	—	—	—	—	—	1,181	0.00	1,181	118	0.00	—	4,132
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.0	32.0
Total	103	235	74.2	562	1.25	3.00	111	114	2.95	28.3	31.2	1,447	146,823	148,270	153	5.73	73.6	153,877
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	16.6	15.7	8.01	84.3	0.19	0.11	20.3	20.4	0.10	5.16	5.26	—	17,743	17,743	0.86	0.83	6.89	18,019
Area	1.76	27.0	1.82	16.4	0.01	0.14	—	0.14	0.14	—	0.14	0.00	1,970	1,970	0.04	< 0.005	—	1,972
Energy	0.43	0.22	3.72	1.82	0.02	0.30	—	0.30	0.30	—	0.30	—	4,584	4,584	0.38	0.01	—	4,596
Water	—	—	—	—	—	—	—	—	—	—	—	44.0	11.1	55.1	4.52	0.11	—	200
Waste	—	—	—	—	—	—	—	—	—	—	—	196	0.00	196	19.5	0.00	—	684
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.29	5.29

Total	18.8	43.0	13.5	102	0.23	0.55	20.3	20.9	0.54	5.16	5.70	240	24,308	24,548	25.3	0.95	12.2	25,476

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	97.3	93.0	39.3	501	1.12	0.58	112	113	0.54	28.5	29.0	—	114,098	114,098	4.71	4.69	96.3	115,710
Area	22.2	158	42.5	191	0.27	3.41	—	3.41	3.38	—	3.38	0.00	52,374	52,374	1.00	0.10	—	52,430
Energy	2.36	1.18	20.4	9.98	0.13	1.63	—	1.63	1.63	—	1.63	—	27,686	27,686	2.27	0.05	—	27,757
Water	—	—	—	—	—	—	—	—	—	—	—	266	67.1	333	27.3	0.65	—	1,208
Waste	—	—	—	—	—	—	—	—	—	—	—	1,181	0.00	1,181	118	0.00	—	4,132
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.0	32.0
Total	122	252	102	702	1.52	5.61	112	118	5.55	28.5	34.0	1,447	194,225	195,673	153	5.49	128	201,270
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	90.8	86.1	46.5	474	1.04	0.58	112	113	0.54	28.5	29.0	—	105,511	105,511	5.57	5.21	2.50	107,207
Area	4.78	142	40.9	17.4	0.26	3.30	—	3.30	3.30	—	3.30	0.00	51,886	51,886	0.98	0.10	—	51,939
Energy	2.36	1.18	20.4	9.98	0.13	1.63	—	1.63	1.63	—	1.63	—	27,686	27,686	2.27	0.05	—	27,757
Water	—	—	—	—	—	—	—	—	—	—	—	266	67.1	333	27.3	0.65	—	1,208
Waste	—	—	—	—	—	—	—	—	—	—	—	1,181	0.00	1,181	118	0.00	—	4,132
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.0	32.0
Total	98.0	229	108	501	1.43	5.51	112	118	5.48	28.5	33.9	1,447	185,151	186,598	154	6.01	34.5	192,276
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	90.8	86.2	43.9	462	1.05	0.58	111	112	0.54	28.3	28.8	—	107,171	107,171	5.22	5.01	41.6	108,836
Area	9.65	148	9.96	89.7	0.06	0.79	—	0.79	0.78	—	0.78	0.00	11,897	11,897	0.23	0.02	—	11,910

Energy	2.36	1.18	20.4	9.98	0.13	1.63	—	1.63	1.63	—	1.63	—	27,686	27,686	2.27	0.05	—	27,757
Water	—	—	—	—	—	—	—	—	—	—	—	266	67.1	333	27.3	0.65	—	1,208
Waste	—	—	—	—	—	—	—	—	—	—	—	1,181	0.00	1,181	118	0.00	—	4,132
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.0	32.0
Total	103	235	74.2	562	1.25	3.00	111	114	2.95	28.3	31.2	1,447	146,822	148,269	153	5.73	73.6	153,876
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	16.6	15.7	8.01	84.3	0.19	0.11	20.3	20.4	0.10	5.16	5.26	—	17,743	17,743	0.86	0.83	6.89	18,019
Area	1.76	27.0	1.82	16.4	0.01	0.14	—	0.14	0.14	—	0.14	0.00	1,970	1,970	0.04	< 0.005	—	1,972
Energy	0.43	0.22	3.72	1.82	0.02	0.30	—	0.30	0.30	—	0.30	—	4,584	4,584	0.38	0.01	—	4,596
Water	—	—	—	—	—	—	—	—	—	—	—	44.0	11.1	55.1	4.52	0.11	—	200
Waste	—	—	—	—	—	—	—	—	—	—	—	196	0.00	196	19.5	0.00	—	684
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.29	5.29
Total	18.8	43.0	13.5	102	0.23	0.55	20.3	20.9	0.54	5.16	5.70	240	24,308	24,548	25.3	0.95	12.2	25,476

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	274	274	0.00	0.00	—	274
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	201	201	0.00	0.00	—	201
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078	0.00	0.00	—	1,078
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	34.5	34.5	0.00	0.00	—	34.5
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	47.7	47.7	0.00	0.00	—	47.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	430	430	0.00	0.00	—	430
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,066	2,066	0.00	0.00	—	2,066
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	274	274	0.00	0.00	—	274
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	201	201	0.00	0.00	—	201

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078	0.00	0.00	—	1,078
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	34.5	34.5	0.00	0.00	—	34.5
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	47.7	47.7	0.00	0.00	—	47.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	430	430	0.00	0.00	—	430
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,066	2,066	0.00	0.00	—	2,066
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	45.4	45.4	0.00	0.00	—	45.4
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	33.3	33.3	0.00	0.00	—	33.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	179	179	0.00	0.00	—	179
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	5.71	5.71	0.00	0.00	—	5.71
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	7.90	7.90	0.00	0.00	—	7.90

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	71.2	71.2	0.00	0.00	—	71.2
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	342	342	0.00	0.00	—	342

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	274	274	0.00	0.00	—	274
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	201	201	0.00	0.00	—	201
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078	0.00	0.00	—	1,078
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	34.5	34.5	0.00	0.00	—	34.5
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	47.7	47.7	0.00	0.00	—	47.7

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	430	430	0.00	0.00	—	430
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,065	2,065	0.00	0.00	—	2,065
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	274	274	0.00	0.00	—	274
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	201	201	0.00	0.00	—	201
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078	0.00	0.00	—	1,078
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	34.5	34.5	0.00	0.00	—	34.5
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	47.7	47.7	0.00	0.00	—	47.7
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	430	430	0.00	0.00	—	430
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,065	2,065	0.00	0.00	—	2,065

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	45.4	45.4	0.00	0.00	—	45.4
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	33.3	33.3	0.00	0.00	—	33.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	178	178	0.00	0.00	—	178
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	5.71	5.71	0.00	0.00	—	5.71
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	7.90	7.90	0.00	0.00	—	7.90
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	71.2	71.2	0.00	0.00	—	71.2
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	342	342	0.00	0.00	—	342

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	0.44	0.22	3.79	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,815	4,815	0.43	0.01	—	4,828
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.32	0.66	11.3	4.81	0.07	0.91	—	0.91	0.91	—	0.91	—	14,357	14,357	1.27	0.03	—	14,397
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.21	0.11	1.94	1.63	0.01	0.15	—	0.15	0.15	—	0.15	—	2,313	2,313	0.20	< 0.005	—	2,319
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.36	1.18	20.4	9.98	0.13	1.63	—	1.63	1.63	—	1.63	—	25,622	25,622	2.27	0.05	—	25,693
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.44	0.22	3.79	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,815	4,815	0.43	0.01	—	4,828
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.32	0.66	11.3	4.81	0.07	0.91	—	0.91	0.91	—	0.91	—	14,357	14,357	1.27	0.03	—	14,397

Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.21	0.11	1.94	1.63	0.01	0.15	—	0.15	0.15	—	0.15	—	2,313	2,313	0.20	< 0.005	—	2,319
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.36	1.18	20.4	9.98	0.13	1.63	—	1.63	1.63	—	1.63	—	25,622	25,622	2.27	0.05	—	25,693
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.08	0.04	0.69	0.29	< 0.005	0.06	—	0.06	0.06	—	0.06	—	797	797	0.07	< 0.005	—	799
Apartments Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.24	0.12	2.06	0.88	0.01	0.17	—	0.17	0.17	—	0.17	—	2,377	2,377	0.21	< 0.005	—	2,384
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.5	30.5	< 0.005	< 0.005	—	30.6
General Office Building	0.04	0.02	0.35	0.30	< 0.005	0.03	—	0.03	0.03	—	0.03	—	383	383	0.03	< 0.005	—	384

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.43	0.22	3.72	1.82	0.02	0.30	—	0.30	0.30	—	0.30	—	4,242	4,242	0.38	0.01	—	4,254

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.44	0.22	3.79	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,815	4,815	0.43	0.01	—	4,828
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.32	0.66	11.3	4.81	0.07	0.91	—	0.91	0.91	—	0.91	—	14,357	14,357	1.27	0.03	—	14,397
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.21	0.11	1.94	1.63	0.01	0.15	—	0.15	0.15	—	0.15	—	2,313	2,313	0.20	< 0.005	—	2,319
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.36	1.18	20.4	9.98	0.13	1.63	—	1.63	1.63	—	1.63	—	25,622	25,622	2.27	0.05	—	25,693
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.44	0.22	3.79	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,815	4,815	0.43	0.01	—	4,828
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.32	0.66	11.3	4.81	0.07	0.91	—	0.91	0.91	—	0.91	—	14,357	14,357	1.27	0.03	—	14,397
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.21	0.11	1.94	1.63	0.01	0.15	—	0.15	0.15	—	0.15	—	2,313	2,313	0.20	< 0.005	—	2,319
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.36	1.18	20.4	9.98	0.13	1.63	—	1.63	1.63	—	1.63	—	25,622	25,622	2.27	0.05	—	25,693
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.08	0.04	0.69	0.29	< 0.005	0.06	—	0.06	0.06	—	0.06	—	797	797	0.07	< 0.005	—	799

Apartment Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.24	0.12	2.06	0.88	0.01	0.17	—	0.17	0.17	—	0.17	—	2,377	2,377	0.21	< 0.005	—	2,384
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.5	30.5	< 0.005	< 0.005	—	30.6
General Office Building	0.04	0.02	0.35	0.30	< 0.005	0.03	—	0.03	0.03	—	0.03	—	383	383	0.03	< 0.005	—	384
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.43	0.22	3.72	1.82	0.02	0.30	—	0.30	0.30	—	0.30	—	4,242	4,242	0.38	0.01	—	4,254

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	4.78	2.39	40.9	17.4	0.26	3.30	—	3.30	3.30	—	3.30	0.00	51,886	51,886	0.98	0.10	—	51,939
Consumer Products	—	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	39.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	17.4	16.4	1.58	174	0.01	0.10	—	0.10	0.08	—	0.08	—	488	488	0.02	< 0.005	—	490
Total	22.2	158	42.5	191	0.27	3.41	—	3.41	3.38	—	3.38	0.00	52,374	52,374	1.00	0.10	—	52,430
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	4.78	2.39	40.9	17.4	0.26	3.30	—	3.30	3.30	—	3.30	0.00	51,886	51,886	0.98	0.10	—	51,939
Consumer Products	—	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	39.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4.78	142	40.9	17.4	0.26	3.30	—	3.30	3.30	—	3.30	0.00	51,886	51,886	0.98	0.10	—	51,939
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.20	0.10	1.68	0.71	0.01	0.14	—	0.14	0.14	—	0.14	0.00	1,930	1,930	0.04	< 0.005	—	1,932
Consumer Products	—	18.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	7.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.57	1.48	0.14	15.6	< 0.005	0.01	—	0.01	0.01	—	0.01	—	39.9	39.9	< 0.005	< 0.005	—	40.0
Total	1.76	27.0	1.82	16.4	0.01	0.14	—	0.14	0.14	—	0.14	0.00	1,970	1,970	0.04	< 0.005	—	1,972

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	4.78	2.39	40.9	17.4	0.26	3.30	—	3.30	3.30	—	3.30	0.00	51,886	51,886	0.98	0.10	—	51,939
Consumer Products	—	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	39.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	17.4	16.4	1.58	174	0.01	0.10	—	0.10	0.08	—	0.08	—	488	488	0.02	< 0.005	—	490
Total	22.2	158	42.5	191	0.27	3.41	—	3.41	3.38	—	3.38	0.00	52,374	52,374	1.00	0.10	—	52,430
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	4.78	2.39	40.9	17.4	0.26	3.30	—	3.30	3.30	—	3.30	0.00	51,886	51,886	0.98	0.10	—	51,939
Consumer Products	—	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	39.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4.78	142	40.9	17.4	0.26	3.30	—	3.30	3.30	—	3.30	0.00	51,886	51,886	0.98	0.10	—	51,939
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.20	0.10	1.68	0.71	0.01	0.14	—	0.14	0.14	—	0.14	0.00	1,930	1,930	0.04	< 0.005	—	1,932
Consumer Products	—	18.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	7.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.57	1.48	0.14	15.6	< 0.005	0.01	—	0.01	0.01	—	0.01	—	39.9	39.9	< 0.005	< 0.005	—	40.0
Total	1.76	27.0	1.82	16.4	0.01	0.14	—	0.14	0.14	—	0.14	0.00	1,970	1,970	0.04	< 0.005	—	1,972

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	39.7	5.32	45.0	4.07	0.10	—	175
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	4.53	38.3	3.46	0.08	—	149
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.4	44.0	138	9.68	0.23	—	449
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.49	4.10	0.37	0.01	—	16.0
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.27	10.7	0.97	0.02	—	41.9

General Office Building	—	—	—	—	—	—	—	—	—	—	—	85.1	11.4	96.6	8.73	0.21	—	377
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	266	67.1	333	27.3	0.65	—	1,208
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	39.7	5.32	45.0	4.07	0.10	—	175
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	4.53	38.3	3.46	0.08	—	149
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.4	44.0	138	9.68	0.23	—	449
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.49	4.10	0.37	0.01	—	16.0
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.27	10.7	0.97	0.02	—	41.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	85.1	11.4	96.6	8.73	0.21	—	377
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	266	67.1	333	27.3	0.65	—	1,208

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.57	0.88	7.45	0.67	0.02	—	29.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	5.59	0.75	6.34	0.57	0.01	—	24.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	15.6	7.29	22.9	1.60	0.04	—	74.3
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.60	0.08	0.68	0.06	< 0.005	—	2.65
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.57	0.21	1.78	0.16	< 0.005	—	6.93
General Office Building	—	—	—	—	—	—	—	—	—	—	—	14.1	1.89	16.0	1.45	0.03	—	62.4
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	44.0	11.1	55.1	4.52	0.11	—	200

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	39.7	5.32	45.0	4.07	0.10	—	175
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	4.53	38.3	3.46	0.08	—	149
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.4	44.0	138	9.68	0.23	—	449
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.49	4.10	0.37	0.01	—	16.0
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.27	10.7	0.97	0.02	—	41.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	85.1	11.4	96.6	8.73	0.21	—	377
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	266	67.1	333	27.3	0.65	—	1,208
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	39.7	5.32	45.0	4.07	0.10	—	175
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	4.53	38.3	3.46	0.08	—	149
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	94.4	44.0	138	9.68	0.23	—	449

Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.49	4.10	0.37	0.01	—	16.0
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.27	10.7	0.97	0.02	—	41.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	85.1	11.4	96.6	8.73	0.21	—	377
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	266	67.1	333	27.3	0.65	—	1,208
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.57	0.88	7.45	0.67	0.02	—	29.0
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	5.59	0.75	6.34	0.57	0.01	—	24.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	15.6	7.29	22.9	1.60	0.04	—	74.3
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.60	0.08	0.68	0.06	< 0.005	—	2.65
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.57	0.21	1.78	0.16	< 0.005	—	6.93
General Office Building	—	—	—	—	—	—	—	—	—	—	—	14.1	1.89	16.0	1.45	0.03	—	62.4

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	44.0	11.1	55.1	4.52	0.11	—	200

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	258	0.00	258	25.8	0.00	—	902
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	463	0.00	463	46.2	0.00	—	1,618
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	125	0.00	125	12.5	0.00	—	438

City Park	—	—	—	—	—	—	—	—	—	—	—	1.48	0.00	1.48	0.15	0.00	—	5.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,181	0.00	1,181	118	0.00	—	4,132
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	258	0.00	258	25.8	0.00	—	902
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	463	0.00	463	46.2	0.00	—	1,618
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	125	0.00	125	12.5	0.00	—	438
City Park	—	—	—	—	—	—	—	—	—	—	—	1.48	0.00	1.48	0.15	0.00	—	5.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,181	0.00	1,181	118	0.00	—	4,132
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	42.7	0.00	42.7	4.27	0.00	—	149
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.65	0.00	—	268
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.25	0.00	6.25	0.62	0.00	—	21.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	20.7	0.00	20.7	2.07	0.00	—	72.6
City Park	—	—	—	—	—	—	—	—	—	—	—	0.25	0.00	0.25	0.02	0.00	—	0.86
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	196	0.00	196	19.5	0.00	—	684

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	258	0.00	258	25.8	0.00	—	902
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	463	0.00	463	46.2	0.00	—	1,618
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	125	0.00	125	12.5	0.00	—	438
City Park	—	—	—	—	—	—	—	—	—	—	—	1.48	0.00	1.48	0.15	0.00	—	5.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,181	0.00	1,181	118	0.00	—	4,132
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	258	0.00	258	25.8	0.00	—	902
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	463	0.00	463	46.2	0.00	—	1,618

Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	125	0.00	125	12.5	0.00	—	438
City Park	—	—	—	—	—	—	—	—	—	—	—	1.48	0.00	1.48	0.15	0.00	—	5.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,181	0.00	1,181	118	0.00	—	4,132
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	42.7	0.00	42.7	4.27	0.00	—	149
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.65	0.00	—	268
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.25	0.00	6.25	0.62	0.00	—	21.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	20.7	0.00	20.7	2.07	0.00	—	72.6

City Park	—	—	—	—	—	—	—	—	—	—	—	0.25	0.00	0.25	0.02	0.00	—	0.86
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	196	0.00	196	19.5	0.00	—	684

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.91	4.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21.5	21.5
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.61	0.61

City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.0	32.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.91	4.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21.5	21.5
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.61	0.61
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.0	32.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.56	3.56
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.29	5.29

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.91	4.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21.5	21.5

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.61	0.61
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.0	32.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.91	4.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	21.5	21.5
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.61	0.61
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32.0	32.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.56	3.56
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.29	5.29

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	30,656	30,656	30,656	11,189,310	158,191	158,191	158,191	57,739,882

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	30,656	30,656	30,656	11,189,310	158,191	158,191	158,191	57,739,882

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	582
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	496
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1386

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	582
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	496
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1386
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
8652582	2,884,194	612,377	204,126	28,750

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,337,978	30.0	0.0000	0.0000	15,023,304
Apartments Low Rise	2,449,123	30.0	0.0000	0.0000	8,374,722
Single Family Housing	13,129,592	30.0	0.0000	0.0000	44,798,639
Junior High School	419,734	30.0	0.0000	0.0000	3,957,049
Elementary School	0.00	30.0	0.0000	0.0000	0.00
Strip Mall	580,817	30.0	0.0000	0.0000	575,052
General Office Building	5,232,376	30.0	0.0000	0.0000	7,217,313
City Park	0.00	30.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	30.0	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,334,789	30.0	0.0000	0.0000	15,023,304
Apartments Low Rise	2,447,762	30.0	0.0000	0.0000	8,374,722
Single Family Housing	13,120,728	30.0	0.0000	0.0000	44,798,639
Junior High School	419,734	30.0	0.0000	0.0000	3,957,049
Elementary School	0.00	30.0	0.0000	0.0000	0.00
Strip Mall	580,817	30.0	0.0000	0.0000	575,052
General Office Building	5,232,376	30.0	0.0000	0.0000	7,217,313

City Park	0.00	30.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	30.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	20,694,263	0.00
Apartments Low Rise	17,623,707	0.00
Single Family Housing	49,256,823	236,594,499
Junior High School	1,888,483	0.00
Elementary School	0.00	0.00
Strip Mall	4,938,267	0.00
General Office Building	44,433,792	0.00
City Park	0.00	763
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	20,694,263	0.00
Apartments Low Rise	17,623,707	0.00
Single Family Housing	49,256,823	236,594,499
Junior High School	1,888,483	0.00
Elementary School	0.00	0.00
Strip Mall	4,938,267	0.00
General Office Building	44,433,792	0.00
City Park	0.00	763

Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	478	—
Apartments Low Rise	408	—
Single Family Housing	858	—
Junior High School	142	—
Elementary School	0.00	—
Strip Mall	70.0	—
General Office Building	233	—
City Park	2.75	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	478	—
Apartments Low Rise	408	—
Single Family Housing	858	—
Junior High School	142	—
Elementary School	0.00	—
Strip Mall	70.0	—
General Office Building	233	—
City Park	2.75	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9

AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—

Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8

Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team

MV OP 14 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 14
Operational Year	2040
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	647	Dwelling Unit	75.0	685,820	0.00	—	1,643	—

Apartments Low Rise	551	Dwelling Unit	28.0	584,060	0.00	—	1,400	—
Single Family Housing	1,650	Dwelling Unit	576	3,217,500	19,326,214	—	4,191	—
Junior High School	779	Student	19.0	91,581	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	66.7	1000sqft	1.53	66,668	0.00	—	—	—
General Office Building	292	1000sqft	6.70	291,669	0.00	—	—	—
City Park	39.0	Acre	39.0	0.00	39.0	39.0	—	—
Other Asphalt Surfaces	11.0	Acre	11.0	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	125	263	105	725	1.57	5.83	116	122	5.76	29.5	35.3	1,522	200,617	202,139	161	5.65	120	207,972
Mit.	125	263	105	725	1.57	5.83	116	122	5.76	29.5	35.3	1,522	200,616	202,138	161	5.65	120	207,971
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	101	239	111	515	1.47	5.72	116	122	5.68	29.5	35.2	1,522	191,233	192,755	162	6.19	35.9	198,685
Mit.	101	239	111	515	1.47	5.72	116	122	5.68	29.5	35.2	1,522	191,232	192,754	162	6.19	35.9	198,684
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	106	246	75.8	579	1.28	3.11	115	118	3.06	29.3	32.4	1,522	151,355	152,877	161	5.90	71.1	158,728
Mit.	106	246	75.8	579	1.28	3.11	115	118	3.06	29.3	32.4	1,522	151,354	152,876	161	5.90	71.1	158,727
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	19.3	44.9	13.8	106	0.23	0.57	21.1	21.6	0.56	5.35	5.90	252	25,059	25,311	26.6	0.98	11.8	26,279
Mit.	19.3	44.9	13.8	106	0.23	0.57	21.1	21.6	0.56	5.35	5.90	252	25,058	25,310	26.6	0.98	11.8	26,279
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	99.6	95.1	39.3	515	1.15	0.56	116	117	0.52	29.5	30.0	—	117,196	117,196	4.83	4.79	86.8	118,832
Area	23.3	167	44.2	200	0.28	3.54	—	3.54	3.52	—	3.52	0.00	54,483	54,483	1.04	0.11	—	54,540
Energy	2.49	1.25	21.5	10.6	0.14	1.72	—	1.72	1.72	—	1.72	—	28,878	28,878	2.39	0.05	—	28,953
Water	—	—	—	—	—	—	—	—	—	—	—	287	60.1	347	29.4	0.70	—	1,291

Waste	—	—	—	—	—	—	—	—	—	—	—	1,235	0.00	1,235	123	0.00	—	4,322
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33.6	33.6
Total	125	263	105	725	1.57	5.83	116	122	5.76	29.5	35.3	1,522	200,617	202,139	161	5.65	120	207,972
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	93.1	88.4	46.7	487	1.07	0.56	116	117	0.52	29.5	30.0	—	108,325	108,325	5.71	5.34	2.25	110,060
Area	4.98	150	42.5	18.1	0.27	3.44	—	3.44	3.44	—	3.44	0.00	53,970	53,970	1.02	0.10	—	54,026
Energy	2.49	1.25	21.5	10.6	0.14	1.72	—	1.72	1.72	—	1.72	—	28,878	28,878	2.39	0.05	—	28,953
Water	—	—	—	—	—	—	—	—	—	—	—	287	60.1	347	29.4	0.70	—	1,291
Waste	—	—	—	—	—	—	—	—	—	—	—	1,235	0.00	1,235	123	0.00	—	4,322
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33.6	33.6
Total	101	239	111	515	1.47	5.72	116	122	5.68	29.5	35.2	1,522	191,233	192,755	162	6.19	35.9	198,685
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	93.0	88.4	44.0	475	1.08	0.56	115	116	0.52	29.3	29.8	—	110,039	110,039	5.36	5.12	37.5	111,738
Area	10.1	156	10.4	93.8	0.07	0.83	—	0.83	0.81	—	0.81	0.00	12,378	12,378	0.24	0.02	—	12,391
Energy	2.49	1.25	21.5	10.6	0.14	1.72	—	1.72	1.72	—	1.72	—	28,878	28,878	2.39	0.05	—	28,953
Water	—	—	—	—	—	—	—	—	—	—	—	287	60.1	347	29.4	0.70	—	1,291
Waste	—	—	—	—	—	—	—	—	—	—	—	1,235	0.00	1,235	123	0.00	—	4,322
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33.6	33.6
Total	106	246	75.8	579	1.28	3.11	115	118	3.06	29.3	32.4	1,522	151,355	152,877	161	5.90	71.1	158,728
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	17.0	16.1	8.02	86.6	0.20	0.10	21.1	21.2	0.10	5.35	5.44	—	18,218	18,218	0.89	0.85	6.21	18,499
Area	1.85	28.5	1.89	17.1	0.01	0.15	—	0.15	0.15	—	0.15	0.00	2,049	2,049	0.04	< 0.005	—	2,051
Energy	0.45	0.23	3.92	1.93	0.02	0.31	—	0.31	0.31	—	0.31	—	4,781	4,781	0.40	0.01	—	4,793
Water	—	—	—	—	—	—	—	—	—	—	—	47.5	9.95	57.5	4.87	0.12	—	214
Waste	—	—	—	—	—	—	—	—	—	—	—	205	0.00	205	20.4	0.00	—	716
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.57	5.57

Total	19.3	44.9	13.8	106	0.23	0.57	21.1	21.6	0.56	5.35	5.90	252	25,059	25,311	26.6	0.98	11.8	26,279

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	99.6	95.1	39.3	515	1.15	0.56	116	117	0.52	29.5	30.0	—	117,196	117,196	4.83	4.79	86.8	118,832
Area	23.3	167	44.2	200	0.28	3.54	—	3.54	3.52	—	3.52	0.00	54,483	54,483	1.04	0.11	—	54,540
Energy	2.49	1.25	21.5	10.6	0.14	1.72	—	1.72	1.72	—	1.72	—	28,877	28,877	2.39	0.05	—	28,952
Water	—	—	—	—	—	—	—	—	—	—	—	287	60.1	347	29.4	0.70	—	1,291
Waste	—	—	—	—	—	—	—	—	—	—	—	1,235	0.00	1,235	123	0.00	—	4,322
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33.6	33.6
Total	125	263	105	725	1.57	5.83	116	122	5.76	29.5	35.3	1,522	200,616	202,138	161	5.65	120	207,971
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	93.1	88.4	46.7	487	1.07	0.56	116	117	0.52	29.5	30.0	—	108,325	108,325	5.71	5.34	2.25	110,060
Area	4.98	150	42.5	18.1	0.27	3.44	—	3.44	3.44	—	3.44	0.00	53,970	53,970	1.02	0.10	—	54,026
Energy	2.49	1.25	21.5	10.6	0.14	1.72	—	1.72	1.72	—	1.72	—	28,877	28,877	2.39	0.05	—	28,952
Water	—	—	—	—	—	—	—	—	—	—	—	287	60.1	347	29.4	0.70	—	1,291
Waste	—	—	—	—	—	—	—	—	—	—	—	1,235	0.00	1,235	123	0.00	—	4,322
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33.6	33.6
Total	101	239	111	515	1.47	5.72	116	122	5.68	29.5	35.2	1,522	191,232	192,754	162	6.19	35.9	198,684
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	93.0	88.4	44.0	475	1.08	0.56	115	116	0.52	29.3	29.8	—	110,039	110,039	5.36	5.12	37.5	111,738
Area	10.1	156	10.4	93.8	0.07	0.83	—	0.83	0.81	—	0.81	0.00	12,378	12,378	0.24	0.02	—	12,391

Energy	2.49	1.25	21.5	10.6	0.14	1.72	—	1.72	1.72	—	1.72	—	28,877	28,877	2.39	0.05	—	28,952
Water	—	—	—	—	—	—	—	—	—	—	—	287	60.1	347	29.4	0.70	—	1,291
Waste	—	—	—	—	—	—	—	—	—	—	—	1,235	0.00	1,235	123	0.00	—	4,322
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33.6	33.6
Total	106	246	75.8	579	1.28	3.11	115	118	3.06	29.3	32.4	1,522	151,354	152,876	161	5.90	71.1	158,727
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	17.0	16.1	8.02	86.6	0.20	0.10	21.1	21.2	0.10	5.35	5.44	—	18,218	18,218	0.89	0.85	6.21	18,499
Area	1.85	28.5	1.89	17.1	0.01	0.15	—	0.15	0.15	—	0.15	0.00	2,049	2,049	0.04	< 0.005	—	2,051
Energy	0.45	0.23	3.92	1.93	0.02	0.31	—	0.31	0.31	—	0.31	—	4,781	4,781	0.40	0.01	—	4,793
Water	—	—	—	—	—	—	—	—	—	—	—	47.5	9.95	57.5	4.87	0.12	—	214
Waste	—	—	—	—	—	—	—	—	—	—	—	205	0.00	205	20.4	0.00	—	716
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.57	5.57
Total	19.3	44.9	13.8	106	0.23	0.57	21.1	21.6	0.56	5.35	5.90	252	25,058	25,310	26.6	0.98	11.8	26,279

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	228	228	0.00	0.00	—	228
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	168	168	0.00	0.00	—	168
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	963	963	0.00	0.00	—	963
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	28.7	28.7	0.00	0.00	—	28.7
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	39.8	39.8	0.00	0.00	—	39.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	418	418	0.00	0.00	—	418
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,845	1,845	0.00	0.00	—	1,845
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	228	228	0.00	0.00	—	228
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	168	168	0.00	0.00	—	168

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	963	963	0.00	0.00	—	963
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	28.7	28.7	0.00	0.00	—	28.7
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	39.8	39.8	0.00	0.00	—	39.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	418	418	0.00	0.00	—	418
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,845	1,845	0.00	0.00	—	1,845
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	37.8	37.8	0.00	0.00	—	37.8
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	27.8	27.8	0.00	0.00	—	27.8
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	159	159	0.00	0.00	—	159
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	4.76	4.76	0.00	0.00	—	4.76
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	6.58	6.58	0.00	0.00	—	6.58

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	69.2	69.2	0.00	0.00	—	69.2
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	306	306	0.00	0.00	—	306

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	228	228	0.00	0.00	—	228
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	168	168	0.00	0.00	—	168
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	962	962	0.00	0.00	—	962
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	28.7	28.7	0.00	0.00	—	28.7
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	39.8	39.8	0.00	0.00	—	39.8

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	418	418	0.00	0.00	—	418
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,844	1,844	0.00	0.00	—	1,844
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	228	228	0.00	0.00	—	228
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	168	168	0.00	0.00	—	168
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	962	962	0.00	0.00	—	962
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	28.7	28.7	0.00	0.00	—	28.7
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	39.8	39.8	0.00	0.00	—	39.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	418	418	0.00	0.00	—	418
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,844	1,844	0.00	0.00	—	1,844

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	37.8	37.8	0.00	0.00	—	37.8
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	27.7	27.7	0.00	0.00	—	27.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	159	159	0.00	0.00	—	159
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	4.76	4.76	0.00	0.00	—	4.76
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	6.58	6.58	0.00	0.00	—	6.58
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	69.2	69.2	0.00	0.00	—	69.2
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	305	305	0.00	0.00	—	305

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	0.44	0.22	3.79	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,815	4,815	0.43	0.01	—	4,828
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.42	0.71	12.1	5.16	0.08	0.98	—	0.98	0.98	—	0.98	—	15,383	15,383	1.36	0.03	—	15,425
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.25	0.12	2.26	1.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,699	2,699	0.24	0.01	—	2,706
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.49	1.25	21.5	10.6	0.14	1.72	—	1.72	1.72	—	1.72	—	27,033	27,033	2.39	0.05	—	27,108
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.44	0.22	3.79	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,815	4,815	0.43	0.01	—	4,828
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.42	0.71	12.1	5.16	0.08	0.98	—	0.98	0.98	—	0.98	—	15,383	15,383	1.36	0.03	—	15,425

Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.25	0.12	2.26	1.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,699	2,699	0.24	0.01	—	2,706
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.49	1.25	21.5	10.6	0.14	1.72	—	1.72	1.72	—	1.72	—	27,033	27,033	2.39	0.05	—	27,108
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.08	0.04	0.69	0.29	< 0.005	0.06	—	0.06	0.06	—	0.06	—	797	797	0.07	< 0.005	—	799
Apartments Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.26	0.13	2.21	0.94	0.01	0.18	—	0.18	0.18	—	0.18	—	2,547	2,547	0.23	< 0.005	—	2,554
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.5	30.5	< 0.005	< 0.005	—	30.6
General Office Building	0.05	0.02	0.41	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	447	447	0.04	< 0.005	—	448

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.45	0.23	3.92	1.93	0.02	0.31	—	0.31	0.31	—	0.31	—	4,476	4,476	0.40	0.01	—	4,488

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.44	0.22	3.79	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,815	4,815	0.43	0.01	—	4,828
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.42	0.71	12.1	5.16	0.08	0.98	—	0.98	0.98	—	0.98	—	15,383	15,383	1.36	0.03	—	15,425
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.25	0.12	2.26	1.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,699	2,699	0.24	0.01	—	2,706
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.49	1.25	21.5	10.6	0.14	1.72	—	1.72	1.72	—	1.72	—	27,033	27,033	2.39	0.05	—	27,108
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.44	0.22	3.79	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,815	4,815	0.43	0.01	—	4,828
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.42	0.71	12.1	5.16	0.08	0.98	—	0.98	0.98	—	0.98	—	15,383	15,383	1.36	0.03	—	15,425
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.25	0.12	2.26	1.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,699	2,699	0.24	0.01	—	2,706
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.49	1.25	21.5	10.6	0.14	1.72	—	1.72	1.72	—	1.72	—	27,033	27,033	2.39	0.05	—	27,108
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.08	0.04	0.69	0.29	< 0.005	0.06	—	0.06	0.06	—	0.06	—	797	797	0.07	< 0.005	—	799

Apartment Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.26	0.13	2.21	0.94	0.01	0.18	—	0.18	0.18	—	0.18	—	2,547	2,547	0.23	< 0.005	—	2,554
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.5	30.5	< 0.005	< 0.005	—	30.6
General Office Building	0.05	0.02	0.41	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	447	447	0.04	< 0.005	—	448
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.45	0.23	3.92	1.93	0.02	0.31	—	0.31	0.31	—	0.31	—	4,476	4,476	0.40	0.01	—	4,488

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	4.98	2.49	42.5	18.1	0.27	3.44	—	3.44	3.44	—	3.44	0.00	53,970	53,970	1.02	0.10	—	54,026
Consumer Products	—	106	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	41.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	18.3	17.2	1.66	182	0.01	0.11	—	0.11	0.08	—	0.08	—	512	512	0.02	< 0.005	—	514
Total	23.3	167	44.2	200	0.28	3.54	—	3.54	3.52	—	3.52	0.00	54,483	54,483	1.04	0.11	—	54,540
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	4.98	2.49	42.5	18.1	0.27	3.44	—	3.44	3.44	—	3.44	0.00	53,970	53,970	1.02	0.10	—	54,026
Consumer Products	—	106	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	41.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4.98	150	42.5	18.1	0.27	3.44	—	3.44	3.44	—	3.44	0.00	53,970	53,970	1.02	0.10	—	54,026
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.20	0.10	1.74	0.74	0.01	0.14	—	0.14	0.14	—	0.14	0.00	2,007	2,007	0.04	< 0.005	—	2,009
Consumer Products	—	19.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	7.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.65	1.55	0.15	16.4	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.8	41.8	< 0.005	< 0.005	—	42.0
Total	1.85	28.5	1.89	17.1	0.01	0.15	—	0.15	0.15	—	0.15	0.00	2,049	2,049	0.04	< 0.005	—	2,051

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	4.98	2.49	42.5	18.1	0.27	3.44	—	3.44	3.44	—	3.44	0.00	53,970	53,970	1.02	0.10	—	54,026
Consumer Products	—	106	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	41.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	18.3	17.2	1.66	182	0.01	0.11	—	0.11	0.08	—	0.08	—	512	512	0.02	< 0.005	—	514
Total	23.3	167	44.2	200	0.28	3.54	—	3.54	3.52	—	3.52	0.00	54,483	54,483	1.04	0.11	—	54,540
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	4.98	2.49	42.5	18.1	0.27	3.44	—	3.44	3.44	—	3.44	0.00	53,970	53,970	1.02	0.10	—	54,026
Consumer Products	—	106	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	41.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4.98	150	42.5	18.1	0.27	3.44	—	3.44	3.44	—	3.44	0.00	53,970	53,970	1.02	0.10	—	54,026
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.20	0.10	1.74	0.74	0.01	0.14	—	0.14	0.14	—	0.14	0.00	2,007	2,007	0.04	< 0.005	—	2,009
Consumer Products	—	19.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	7.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.65	1.55	0.15	16.4	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.8	41.8	< 0.005	< 0.005	—	42.0
Total	1.85	28.5	1.89	17.1	0.01	0.15	—	0.15	0.15	—	0.15	0.00	2,049	2,049	0.04	< 0.005	—	2,051

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	39.7	4.44	44.1	4.07	0.10	—	175
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	3.78	37.5	3.46	0.08	—	149
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	101	39.3	140	10.4	0.25	—	473
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.40	4.02	0.37	0.01	—	15.9
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.06	10.5	0.97	0.02	—	41.6

General Office Building	—	—	—	—	—	—	—	—	—	—	—	99.3	11.1	110	10.2	0.24	—	437
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	287	60.1	347	29.4	0.70	—	1,291
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	39.7	4.44	44.1	4.07	0.10	—	175
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	3.78	37.5	3.46	0.08	—	149
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	101	39.3	140	10.4	0.25	—	473
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.40	4.02	0.37	0.01	—	15.9
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.06	10.5	0.97	0.02	—	41.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	99.3	11.1	110	10.2	0.24	—	437
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	287	60.1	347	29.4	0.70	—	1,291

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.57	0.73	7.30	0.67	0.02	—	28.9
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	5.59	0.63	6.22	0.57	0.01	—	24.6
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	16.7	6.51	23.2	1.72	0.04	—	78.3
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.60	0.07	0.67	0.06	< 0.005	—	2.64
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.57	0.18	1.74	0.16	< 0.005	—	6.90
General Office Building	—	—	—	—	—	—	—	—	—	—	—	16.4	1.84	18.3	1.69	0.04	—	72.4
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	47.5	9.95	57.5	4.87	0.12	—	214

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	39.7	4.44	44.1	4.07	0.10	—	175
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	3.78	37.5	3.46	0.08	—	149
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	101	39.3	140	10.4	0.25	—	473
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.40	4.02	0.37	0.01	—	15.9
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.06	10.5	0.97	0.02	—	41.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	99.3	11.1	110	10.2	0.24	—	437
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	287	60.1	347	29.4	0.70	—	1,291
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	39.7	4.44	44.1	4.07	0.10	—	175
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	3.78	37.5	3.46	0.08	—	149
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	101	39.3	140	10.4	0.25	—	473

Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.40	4.02	0.37	0.01	—	15.9
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	1.06	10.5	0.97	0.02	—	41.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	99.3	11.1	110	10.2	0.24	—	437
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	287	60.1	347	29.4	0.70	—	1,291
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.57	0.73	7.30	0.67	0.02	—	28.9
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	5.59	0.63	6.22	0.57	0.01	—	24.6
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	16.7	6.51	23.2	1.72	0.04	—	78.3
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.60	0.07	0.67	0.06	< 0.005	—	2.64
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.57	0.18	1.74	0.16	< 0.005	—	6.90
General Office Building	—	—	—	—	—	—	—	—	—	—	—	16.4	1.84	18.3	1.69	0.04	—	72.4

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	47.5	9.95	57.5	4.87	0.12	—	214

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	258	0.00	258	25.8	0.00	—	902
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	496	0.00	496	49.5	0.00	—	1,734
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	511

City Park	—	—	—	—	—	—	—	—	—	—	—	1.81	0.00	1.81	0.18	0.00	—	6.32
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,235	0.00	1,235	123	0.00	—	4,322
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	258	0.00	258	25.8	0.00	—	902
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	496	0.00	496	49.5	0.00	—	1,734
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	511
City Park	—	—	—	—	—	—	—	—	—	—	—	1.81	0.00	1.81	0.18	0.00	—	6.32
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,235	0.00	1,235	123	0.00	—	4,322
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	42.7	0.00	42.7	4.27	0.00	—	149
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	82.0	0.00	82.0	8.20	0.00	—	287
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.25	0.00	6.25	0.62	0.00	—	21.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	24.2	0.00	24.2	2.42	0.00	—	84.7
City Park	—	—	—	—	—	—	—	—	—	—	—	0.30	0.00	0.30	0.03	0.00	—	1.05
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	205	0.00	205	20.4	0.00	—	716

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	258	0.00	258	25.8	0.00	—	902
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	496	0.00	496	49.5	0.00	—	1,734
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	511
City Park	—	—	—	—	—	—	—	—	—	—	—	1.81	0.00	1.81	0.18	0.00	—	6.32
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,235	0.00	1,235	123	0.00	—	4,322
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	258	0.00	258	25.8	0.00	—	902
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	496	0.00	496	49.5	0.00	—	1,734

Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	146	0.00	146	14.6	0.00	—	511
City Park	—	—	—	—	—	—	—	—	—	—	—	1.81	0.00	1.81	0.18	0.00	—	6.32
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,235	0.00	1,235	123	0.00	—	4,322
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	42.7	0.00	42.7	4.27	0.00	—	149
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	82.0	0.00	82.0	8.20	0.00	—	287
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.25	0.00	6.25	0.62	0.00	—	21.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	24.2	0.00	24.2	2.42	0.00	—	84.7

City Park	—	—	—	—	—	—	—	—	—	—	—	0.30	0.00	0.30	0.03	0.00	—	1.05
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	205	0.00	205	20.4	0.00	—	716

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.91	4.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.0	23.0
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.71	0.71

City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33.6	33.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.91	4.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.0	23.0
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.71	0.71
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33.6	33.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.82	3.82
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.57	5.57

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.91	4.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.0	23.0

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.71	0.71
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33.6	33.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.91	4.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23.0	23.0
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.71	0.71
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33.6	33.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.82	3.82
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12	0.12
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.57	5.57

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	32,675	32,675	32,675	11,926,501	164,039	164,039	164,039	59,874,296

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	32,675	32,675	32,675	11,926,501	164,039	164,039	164,039	59,874,296

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	582
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	496
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1485

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	582
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	496
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1485
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
9086944.5	3,028,982	674,877	224,959	28,750

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,337,978	25.0	0.0000	0.0000	15,023,304
Apartments Low Rise	2,449,123	25.0	0.0000	0.0000	8,374,722
Single Family Housing	14,067,420	25.0	0.0000	0.0000	47,998,542
Junior High School	419,734	25.0	0.0000	0.0000	3,957,049
Elementary School	0.00	25.0	0.0000	0.0000	0.00
Strip Mall	580,817	25.0	0.0000	0.0000	575,052
General Office Building	6,104,439	25.0	0.0000	0.0000	8,420,198
City Park	0.00	25.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	25.0	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,334,789	25.0	0.0000	0.0000	15,023,304
Apartments Low Rise	2,447,762	25.0	0.0000	0.0000	8,374,722
Single Family Housing	14,057,923	25.0	0.0000	0.0000	47,998,542
Junior High School	419,734	25.0	0.0000	0.0000	3,957,049
Elementary School	0.00	25.0	0.0000	0.0000	0.00
Strip Mall	580,817	25.0	0.0000	0.0000	575,052
General Office Building	6,104,439	25.0	0.0000	0.0000	8,420,198

City Park	0.00	25.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	25.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	20,694,263	0.00
Apartments Low Rise	17,623,707	0.00
Single Family Housing	52,775,168	253,494,103
Junior High School	1,888,483	0.00
Elementary School	0.00	0.00
Strip Mall	4,938,267	0.00
General Office Building	51,839,425	0.00
City Park	0.00	930
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	20,694,263	0.00
Apartments Low Rise	17,623,707	0.00
Single Family Housing	52,775,168	253,494,103
Junior High School	1,888,483	0.00
Elementary School	0.00	0.00
Strip Mall	4,938,267	0.00
General Office Building	51,839,425	0.00
City Park	0.00	930

Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	478	—
Apartments Low Rise	408	—
Single Family Housing	919	—
Junior High School	142	—
Elementary School	0.00	—
Strip Mall	70.0	—
General Office Building	271	—
City Park	3.35	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	478	—
Apartments Low Rise	408	—
Single Family Housing	919	—
Junior High School	142	—
Elementary School	0.00	—
Strip Mall	70.0	—
General Office Building	271	—
City Park	3.35	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9

AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—

Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8

Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team

MV OP 15 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 15
Operational Year	2041
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	647	Dwelling Unit	75.0	685,820	0.00	—	1,643	—

Apartments Low Rise	551	Dwelling Unit	28.0	584,060	0.00	—	1,400	—
Single Family Housing	1,755	Dwelling Unit	612	3,422,250	20,556,064	—	4,458	—
Junior High School	779	Student	19.0	91,581	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	66.7	1000sqft	1.53	66,668	0.00	—	—	—
General Office Building	333	1000sqft	7.65	333,336	0.00	—	—	—
City Park	45.0	Acre	45.0	0.00	45.0	45.0	—	—
Other Asphalt Surfaces	11.0	Acre	11.0	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	129	274	108	748	1.62	6.03	120	126	5.97	30.5	36.5	1,596	206,731	208,327	169	5.81	113	214,392
Mit.	129	274	108	748	1.62	6.03	120	126	5.97	30.5	36.5	1,596	206,730	208,326	169	5.81	113	214,391
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	103	249	114	530	1.52	5.92	120	126	5.89	30.5	36.4	1,596	197,049	198,645	170	6.37	37.2	204,823
Mit.	103	249	114	530	1.52	5.92	120	126	5.89	30.5	36.4	1,596	197,049	198,644	170	6.37	37.2	204,822
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	109	256	77.4	597	1.32	3.21	119	123	3.16	30.3	33.5	1,596	155,693	157,289	169	6.07	68.9	163,379
Mit.	109	256	77.4	597	1.32	3.21	119	123	3.16	30.3	33.5	1,596	155,692	157,288	169	6.07	68.9	163,379
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	19.9	46.7	14.1	109	0.24	0.59	21.8	22.4	0.58	5.53	6.11	264	25,777	26,041	27.9	1.00	11.4	27,049
Mit.	19.9	46.7	14.1	109	0.24	0.59	21.8	22.4	0.58	5.53	6.11	264	25,777	26,041	27.9	1.00	11.4	27,049
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	102	97.6	39.4	528	1.18	0.55	120	121	0.51	30.5	31.0	—	120,214	120,214	4.95	4.90	78.0	121,876
Area	24.3	175	45.8	209	0.29	3.68	—	3.68	3.65	—	3.65	0.00	56,496	56,496	1.08	0.11	—	56,556
Energy	2.62	1.31	22.6	11.2	0.14	1.81	—	1.81	1.81	—	1.81	—	29,970	29,970	2.51	0.05	—	30,049
Water	—	—	—	—	—	—	—	—	—	—	—	308	51.3	359	31.5	0.75	—	1,371

Waste	—	—	—	—	—	—	—	—	—	—	—	1,288	0.00	1,288	129	0.00	—	4,506
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.2	35.2
Total	129	274	108	748	1.62	6.03	120	126	5.97	30.5	36.5	1,596	206,731	208,327	169	5.81	113	214,392
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	95.7	90.9	46.9	500	1.09	0.55	120	121	0.51	30.5	31.0	—	111,068	111,068	5.86	5.46	2.02	112,844
Area	5.16	157	44.1	18.8	0.28	3.56	—	3.56	3.56	—	3.56	0.00	55,960	55,960	1.05	0.11	—	56,018
Energy	2.62	1.31	22.6	11.2	0.14	1.81	—	1.81	1.81	—	1.81	—	29,970	29,970	2.51	0.05	—	30,049
Water	—	—	—	—	—	—	—	—	—	—	—	308	51.3	359	31.5	0.75	—	1,371
Waste	—	—	—	—	—	—	—	—	—	—	—	1,288	0.00	1,288	129	0.00	—	4,506
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.2	35.2
Total	103	249	114	530	1.52	5.92	120	126	5.89	30.5	36.4	1,596	197,049	198,645	170	6.37	37.2	204,823
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	95.5	90.8	44.1	488	1.11	0.55	119	120	0.51	30.3	30.8	—	112,836	112,836	5.49	5.24	33.7	114,568
Area	10.6	164	10.8	97.8	0.07	0.86	—	0.86	0.84	—	0.84	0.00	12,836	12,836	0.25	0.03	—	12,850
Energy	2.62	1.31	22.6	11.2	0.14	1.81	—	1.81	1.81	—	1.81	—	29,970	29,970	2.51	0.05	—	30,049
Water	—	—	—	—	—	—	—	—	—	—	—	308	51.3	359	31.5	0.75	—	1,371
Waste	—	—	—	—	—	—	—	—	—	—	—	1,288	0.00	1,288	129	0.00	—	4,506
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.2	35.2
Total	109	256	77.4	597	1.32	3.21	119	123	3.16	30.3	33.5	1,596	155,693	157,289	169	6.07	68.9	163,379
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	17.4	16.6	8.05	89.0	0.20	0.10	21.8	21.9	0.09	5.53	5.62	—	18,681	18,681	0.91	0.87	5.58	18,968
Area	1.94	29.9	1.96	17.8	0.01	0.16	—	0.16	0.15	—	0.15	0.00	2,125	2,125	0.04	< 0.005	—	2,127
Energy	0.48	0.24	4.12	2.04	0.03	0.33	—	0.33	0.33	—	0.33	—	4,962	4,962	0.42	0.01	—	4,975
Water	—	—	—	—	—	—	—	—	—	—	—	50.9	8.50	59.4	5.22	0.12	—	227
Waste	—	—	—	—	—	—	—	—	—	—	—	213	0.00	213	21.3	0.00	—	746
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.83	5.83

Total	19.9	46.7	14.1	109	0.24	0.59	21.8	22.4	0.58	5.53	6.11	264	25,777	26,041	27.9	1.00	11.4	27,049

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	102	97.6	39.4	528	1.18	0.55	120	121	0.51	30.5	31.0	—	120,214	120,214	4.95	4.90	78.0	121,876
Area	24.3	175	45.8	209	0.29	3.68	—	3.68	3.65	—	3.65	0.00	56,496	56,496	1.08	0.11	—	56,556
Energy	2.62	1.31	22.6	11.2	0.14	1.81	—	1.81	1.81	—	1.81	—	29,969	29,969	2.51	0.05	—	30,048
Water	—	—	—	—	—	—	—	—	—	—	—	308	51.3	359	31.5	0.75	—	1,371
Waste	—	—	—	—	—	—	—	—	—	—	—	1,288	0.00	1,288	129	0.00	—	4,506
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.2	35.2
Total	129	274	108	748	1.62	6.03	120	126	5.97	30.5	36.5	1,596	206,730	208,326	169	5.81	113	214,391
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	95.7	90.9	46.9	500	1.09	0.55	120	121	0.51	30.5	31.0	—	111,068	111,068	5.86	5.46	2.02	112,844
Area	5.16	157	44.1	18.8	0.28	3.56	—	3.56	3.56	—	3.56	0.00	55,960	55,960	1.05	0.11	—	56,018
Energy	2.62	1.31	22.6	11.2	0.14	1.81	—	1.81	1.81	—	1.81	—	29,969	29,969	2.51	0.05	—	30,048
Water	—	—	—	—	—	—	—	—	—	—	—	308	51.3	359	31.5	0.75	—	1,371
Waste	—	—	—	—	—	—	—	—	—	—	—	1,288	0.00	1,288	129	0.00	—	4,506
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.2	35.2
Total	103	249	114	530	1.52	5.92	120	126	5.89	30.5	36.4	1,596	197,049	198,644	170	6.37	37.2	204,822
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	95.5	90.8	44.1	488	1.11	0.55	119	120	0.51	30.3	30.8	—	112,836	112,836	5.49	5.24	33.7	114,568
Area	10.6	164	10.8	97.8	0.07	0.86	—	0.86	0.84	—	0.84	0.00	12,836	12,836	0.25	0.03	—	12,850

Energy	2.62	1.31	22.6	11.2	0.14	1.81	—	1.81	1.81	—	1.81	—	29,969	29,969	2.51	0.05	—	30,048
Water	—	—	—	—	—	—	—	—	—	—	—	308	51.3	359	31.5	0.75	—	1,371
Waste	—	—	—	—	—	—	—	—	—	—	—	1,288	0.00	1,288	129	0.00	—	4,506
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.2	35.2
Total	109	256	77.4	597	1.32	3.21	119	123	3.16	30.3	33.5	1,596	155,692	157,288	169	6.07	68.9	163,379
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	17.4	16.6	8.05	89.0	0.20	0.10	21.8	21.9	0.09	5.53	5.62	—	18,681	18,681	0.91	0.87	5.58	18,968
Area	1.94	29.9	1.96	17.8	0.01	0.16	—	0.16	0.15	—	0.15	0.00	2,125	2,125	0.04	< 0.005	—	2,127
Energy	0.48	0.24	4.12	2.04	0.03	0.33	—	0.33	0.33	—	0.33	—	4,962	4,962	0.42	0.01	—	4,975
Water	—	—	—	—	—	—	—	—	—	—	—	50.9	8.50	59.4	5.22	0.12	—	227
Waste	—	—	—	—	—	—	—	—	—	—	—	213	0.00	213	21.3	0.00	—	746
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.83	5.83
Total	19.9	46.7	14.1	109	0.24	0.59	21.8	22.4	0.58	5.53	6.11	264	25,777	26,041	27.9	1.00	11.4	27,049

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	183	183	0.00	0.00	—	183
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	134	134	0.00	0.00	—	134
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	819	819	0.00	0.00	—	819
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	23.0	23.0	0.00	0.00	—	23.0
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	31.8	31.8	0.00	0.00	—	31.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	382	382	0.00	0.00	—	382
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,573	1,573	0.00	0.00	—	1,573
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	183	183	0.00	0.00	—	183
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	134	134	0.00	0.00	—	134

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	819	819	0.00	0.00	—	819
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	23.0	23.0	0.00	0.00	—	23.0
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	31.8	31.8	0.00	0.00	—	31.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	382	382	0.00	0.00	—	382
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,573	1,573	0.00	0.00	—	1,573
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	30.3	30.3	0.00	0.00	—	30.3
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	22.2	22.2	0.00	0.00	—	22.2
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	136	136	0.00	0.00	—	136
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	3.81	3.81	0.00	0.00	—	3.81
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	5.27	5.27	0.00	0.00	—	5.27

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	63.2	63.2	0.00	0.00	—	63.2
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	260	260	0.00	0.00	—	260

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	183	183	0.00	0.00	—	183
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	134	134	0.00	0.00	—	134
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	819	819	0.00	0.00	—	819
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	23.0	23.0	0.00	0.00	—	23.0
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	31.8	31.8	0.00	0.00	—	31.8

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	382	382	0.00	0.00	—	382
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,572	1,572	0.00	0.00	—	1,572
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	183	183	0.00	0.00	—	183
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	134	134	0.00	0.00	—	134
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	819	819	0.00	0.00	—	819
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	23.0	23.0	0.00	0.00	—	23.0
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	31.8	31.8	0.00	0.00	—	31.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	382	382	0.00	0.00	—	382
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,572	1,572	0.00	0.00	—	1,572

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	30.2	30.2	0.00	0.00	—	30.2
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	22.2	22.2	0.00	0.00	—	22.2
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	136	136	0.00	0.00	—	136
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	3.81	3.81	0.00	0.00	—	3.81
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	5.27	5.27	0.00	0.00	—	5.27
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	63.2	63.2	0.00	0.00	—	63.2
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	260	260	0.00	0.00	—	260

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	0.44	0.22	3.79	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,815	4,815	0.43	0.01	—	4,828
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.51	0.75	12.9	5.49	0.08	1.04	—	1.04	1.04	—	1.04	—	16,362	16,362	1.45	0.03	—	16,407
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.62	1.31	22.6	11.2	0.14	1.81	—	1.81	1.81	—	1.81	—	28,397	28,397	2.51	0.05	—	28,476
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.44	0.22	3.79	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,815	4,815	0.43	0.01	—	4,828
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.51	0.75	12.9	5.49	0.08	1.04	—	1.04	1.04	—	1.04	—	16,362	16,362	1.45	0.03	—	16,407

Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.62	1.31	22.6	11.2	0.14	1.81	—	1.81	1.81	—	1.81	—	28,397	28,397	2.51	0.05	—	28,476
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.08	0.04	0.69	0.29	< 0.005	0.06	—	0.06	0.06	—	0.06	—	797	797	0.07	< 0.005	—	799
Apartments Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.28	0.14	2.35	1.00	0.02	0.19	—	0.19	0.19	—	0.19	—	2,709	2,709	0.24	0.01	—	2,716
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.5	30.5	< 0.005	< 0.005	—	30.6
General Office Building	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	511	511	0.05	< 0.005	—	512

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.48	0.24	4.12	2.04	0.03	0.33	—	0.33	0.33	—	0.33	—	4,701	4,701	0.42	0.01	—	4,714

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.44	0.22	3.79	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,815	4,815	0.43	0.01	—	4,828
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.51	0.75	12.9	5.49	0.08	1.04	—	1.04	1.04	—	1.04	—	16,362	16,362	1.45	0.03	—	16,407
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.62	1.31	22.6	11.2	0.14	1.81	—	1.81	1.81	—	1.81	—	28,397	28,397	2.51	0.05	—	28,476
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.44	0.22	3.79	1.61	0.02	0.31	—	0.31	0.31	—	0.31	—	4,815	4,815	0.43	0.01	—	4,828
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.51	0.75	12.9	5.49	0.08	1.04	—	1.04	1.04	—	1.04	—	16,362	16,362	1.45	0.03	—	16,407
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.02	0.01	0.15	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	184	184	0.02	< 0.005	—	185
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.62	1.31	22.6	11.2	0.14	1.81	—	1.81	1.81	—	1.81	—	28,397	28,397	2.51	0.05	—	28,476
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.08	0.04	0.69	0.29	< 0.005	0.06	—	0.06	0.06	—	0.06	—	797	797	0.07	< 0.005	—	799

Apartment Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.28	0.14	2.35	1.00	0.02	0.19	—	0.19	0.19	—	0.19	—	2,709	2,709	0.24	0.01	—	2,716
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.5	30.5	< 0.005	< 0.005	—	30.6
General Office Building	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	511	511	0.05	< 0.005	—	512
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.48	0.24	4.12	2.04	0.03	0.33	—	0.33	0.33	—	0.33	—	4,701	4,701	0.42	0.01	—	4,714

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.16	2.58	44.1	18.8	0.28	3.56	—	3.56	3.56	—	3.56	0.00	55,960	55,960	1.05	0.11	—	56,018
Consumer Products	—	111	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	43.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	19.2	18.1	1.73	190	0.01	0.11	—	0.11	0.09	—	0.09	—	536	536	0.02	< 0.005	—	538
Total	24.3	175	45.8	209	0.29	3.68	—	3.68	3.65	—	3.65	0.00	56,496	56,496	1.08	0.11	—	56,556
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.16	2.58	44.1	18.8	0.28	3.56	—	3.56	3.56	—	3.56	0.00	55,960	55,960	1.05	0.11	—	56,018
Consumer Products	—	111	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	43.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.16	157	44.1	18.8	0.28	3.56	—	3.56	3.56	—	3.56	0.00	55,960	55,960	1.05	0.11	—	56,018
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.21	0.11	1.81	0.77	0.01	0.15	—	0.15	0.15	—	0.15	0.00	2,081	2,081	0.04	< 0.005	—	2,084
Consumer Products	—	20.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	7.92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.73	1.63	0.16	17.1	< 0.005	0.01	—	0.01	0.01	—	0.01	—	43.8	43.8	< 0.005	< 0.005	—	43.9
Total	1.94	29.9	1.96	17.8	0.01	0.16	—	0.16	0.15	—	0.15	0.00	2,125	2,125	0.04	< 0.005	—	2,127

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.16	2.58	44.1	18.8	0.28	3.56	—	3.56	3.56	—	3.56	0.00	55,960	55,960	1.05	0.11	—	56,018
Consumer Products	—	111	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	43.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	19.2	18.1	1.73	190	0.01	0.11	—	0.11	0.09	—	0.09	—	536	536	0.02	< 0.005	—	538
Total	24.3	175	45.8	209	0.29	3.68	—	3.68	3.65	—	3.65	0.00	56,496	56,496	1.08	0.11	—	56,556
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.16	2.58	44.1	18.8	0.28	3.56	—	3.56	3.56	—	3.56	0.00	55,960	55,960	1.05	0.11	—	56,018
Consumer Products	—	111	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	43.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.16	157	44.1	18.8	0.28	3.56	—	3.56	3.56	—	3.56	0.00	55,960	55,960	1.05	0.11	—	56,018
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.21	0.11	1.81	0.77	0.01	0.15	—	0.15	0.15	—	0.15	0.00	2,081	2,081	0.04	< 0.005	—	2,084
Consumer Products	—	20.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	7.92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.73	1.63	0.16	17.1	< 0.005	0.01	—	0.01	0.01	—	0.01	—	43.8	43.8	< 0.005	< 0.005	—	43.9
Total	1.94	29.9	1.96	17.8	0.01	0.16	—	0.16	0.15	—	0.15	0.00	2,125	2,125	0.04	< 0.005	—	2,127

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	39.7	3.55	43.2	4.07	0.10	—	174
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	3.02	36.8	3.46	0.08	—	148
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	108	33.4	141	11.0	0.26	—	495
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.32	3.94	0.37	0.01	—	15.8
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	0.85	10.3	0.97	0.02	—	41.4

General Office Building	—	—	—	—	—	—	—	—	—	—	—	114	10.2	124	11.6	0.28	—	497
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	308	51.3	359	31.5	0.75	—	1,371
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	39.7	3.55	43.2	4.07	0.10	—	174
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	3.02	36.8	3.46	0.08	—	148
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	108	33.4	141	11.0	0.26	—	495
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.32	3.94	0.37	0.01	—	15.8
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	0.85	10.3	0.97	0.02	—	41.4
General Office Building	—	—	—	—	—	—	—	—	—	—	—	114	10.2	124	11.6	0.28	—	497
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	308	51.3	359	31.5	0.75	—	1,371

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.57	0.59	7.15	0.67	0.02	—	28.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	5.59	0.50	6.09	0.57	0.01	—	24.5
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	17.8	5.54	23.3	1.83	0.04	—	81.9
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.60	0.05	0.65	0.06	< 0.005	—	2.62
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.57	0.14	1.71	0.16	< 0.005	—	6.86
General Office Building	—	—	—	—	—	—	—	—	—	—	—	18.8	1.68	20.5	1.93	0.05	—	82.3
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	50.9	8.50	59.4	5.22	0.12	—	227

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	39.7	3.55	43.2	4.07	0.10	—	174
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	3.02	36.8	3.46	0.08	—	148
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	108	33.4	141	11.0	0.26	—	495
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.32	3.94	0.37	0.01	—	15.8
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	0.85	10.3	0.97	0.02	—	41.4
General Office Building	—	—	—	—	—	—	—	—	—	—	—	114	10.2	124	11.6	0.28	—	497
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	308	51.3	359	31.5	0.75	—	1,371
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	39.7	3.55	43.2	4.07	0.10	—	174
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	3.02	36.8	3.46	0.08	—	148
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	108	33.4	141	11.0	0.26	—	495

Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.32	3.94	0.37	0.01	—	15.8
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.46	0.85	10.3	0.97	0.02	—	41.4
General Office Building	—	—	—	—	—	—	—	—	—	—	—	114	10.2	124	11.6	0.28	—	497
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	308	51.3	359	31.5	0.75	—	1,371
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.57	0.59	7.15	0.67	0.02	—	28.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	5.59	0.50	6.09	0.57	0.01	—	24.5
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	17.8	5.54	23.3	1.83	0.04	—	81.9
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.60	0.05	0.65	0.06	< 0.005	—	2.62
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.57	0.14	1.71	0.16	< 0.005	—	6.86
General Office Building	—	—	—	—	—	—	—	—	—	—	—	18.8	1.68	20.5	1.93	0.05	—	82.3

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	50.9	8.50	59.4	5.22	0.12	—	227

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	258	0.00	258	25.8	0.00	—	902
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	527	0.00	527	52.7	0.00	—	1,844
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585

City Park	—	—	—	—	—	—	—	—	—	—	—	2.09	0.00	2.09	0.21	0.00	—	7.30
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,288	0.00	1,288	129	0.00	—	4,506
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	258	0.00	258	25.8	0.00	—	902
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	527	0.00	527	52.7	0.00	—	1,844
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.09	0.00	2.09	0.21	0.00	—	7.30
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,288	0.00	1,288	129	0.00	—	4,506
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	42.7	0.00	42.7	4.27	0.00	—	149
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	87.3	0.00	87.3	8.72	0.00	—	305
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.25	0.00	6.25	0.62	0.00	—	21.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	27.7	0.00	27.7	2.76	0.00	—	96.8
City Park	—	—	—	—	—	—	—	—	—	—	—	0.35	0.00	0.35	0.03	0.00	—	1.21
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	213	0.00	213	21.3	0.00	—	746

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	258	0.00	258	25.8	0.00	—	902
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	527	0.00	527	52.7	0.00	—	1,844
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.09	0.00	2.09	0.21	0.00	—	7.30
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,288	0.00	1,288	129	0.00	—	4,506
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	258	0.00	258	25.8	0.00	—	902
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	527	0.00	527	52.7	0.00	—	1,844

Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	37.7	0.00	37.7	3.77	0.00	—	132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.09	0.00	2.09	0.21	0.00	—	7.30
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,288	0.00	1,288	129	0.00	—	4,506
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	42.7	0.00	42.7	4.27	0.00	—	149
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	87.3	0.00	87.3	8.72	0.00	—	305
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.25	0.00	6.25	0.62	0.00	—	21.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	27.7	0.00	27.7	2.76	0.00	—	96.8

City Park	—	—	—	—	—	—	—	—	—	—	—	0.35	0.00	0.35	0.03	0.00	—	1.21
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	213	0.00	213	21.3	0.00	—	746

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.91	4.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.5	24.5
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81

City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.2	35.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.91	4.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.5	24.5
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.2	35.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.06	4.06
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.83	5.83

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.91	4.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.5	24.5

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.2	35.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.91	4.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.5	24.5
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35.2	35.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.06	4.06
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.83	5.83

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	34,649	34,649	34,649	12,646,718	169,672	169,672	169,672	61,930,176

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	34,649	34,649	34,649	12,646,718	169,672	169,672	169,672	61,930,176

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	582
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	496
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1580

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	582
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	496
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1580
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
9501563.25	3,167,188	737,378	245,793	28,750

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,337,978	20.0	0.0000	0.0000	15,023,304
Apartments Low Rise	2,449,123	20.0	0.0000	0.0000	8,374,722
Single Family Housing	14,962,620	20.0	0.0000	0.0000	51,052,995
Junior High School	419,734	20.0	0.0000	0.0000	3,957,049
Elementary School	0.00	20.0	0.0000	0.0000	0.00
Strip Mall	580,817	20.0	0.0000	0.0000	575,052
General Office Building	6,976,501	20.0	0.0000	0.0000	9,623,084
City Park	0.00	20.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	20.0	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,334,789	20.0	0.0000	0.0000	15,023,304
Apartments Low Rise	2,447,762	20.0	0.0000	0.0000	8,374,722
Single Family Housing	14,952,518	20.0	0.0000	0.0000	51,052,995
Junior High School	419,734	20.0	0.0000	0.0000	3,957,049
Elementary School	0.00	20.0	0.0000	0.0000	0.00
Strip Mall	580,817	20.0	0.0000	0.0000	575,052
General Office Building	6,976,501	20.0	0.0000	0.0000	9,623,084

City Park	0.00	20.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	20.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	20,694,263	0.00
Apartments Low Rise	17,623,707	0.00
Single Family Housing	56,133,587	269,625,546
Junior High School	1,888,483	0.00
Elementary School	0.00	0.00
Strip Mall	4,938,267	0.00
General Office Building	59,245,057	0.00
City Park	0.00	1,073
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	20,694,263	0.00
Apartments Low Rise	17,623,707	0.00
Single Family Housing	56,133,587	269,625,546
Junior High School	1,888,483	0.00
Elementary School	0.00	0.00
Strip Mall	4,938,267	0.00
General Office Building	59,245,057	0.00
City Park	0.00	1,073

Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	478	—
Apartments Low Rise	408	—
Single Family Housing	978	—
Junior High School	142	—
Elementary School	0.00	—
Strip Mall	70.0	—
General Office Building	310	—
City Park	3.87	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	478	—
Apartments Low Rise	408	—
Single Family Housing	978	—
Junior High School	142	—
Elementary School	0.00	—
Strip Mall	70.0	—
General Office Building	310	—
City Park	3.87	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9

AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—

Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8

Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team

MV OP 16 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 16
Operational Year	2042
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	689	Dwelling Unit	80.0	730,340	0.00	—	1,750	—

Apartments Low Rise	551	Dwelling Unit	28.0	584,060	0.00	—	1,400	—
Single Family Housing	1,859	Dwelling Unit	649	3,625,050	21,774,201	—	4,722	—
Junior High School	779	Student	19.0	91,581	0.00	0.00	—	—
Elementary School	0.00	Student	0.00	0.00	0.00	0.00	—	—
Strip Mall	100	1000sqft	2.30	100,000	0.00	—	—	—
General Office Building	333	1000sqft	7.65	333,336	0.00	—	—	—
City Park	45.0	Acre	45.0	0.00	45.0	45.0	—	—
Other Asphalt Surfaces	11.0	Acre	11.0	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	133	286	112	778	1.68	6.30	126	132	6.23	31.9	38.1	1,676	215,093	216,769	177	6.01	108	223,098
Mit.	133	286	112	778	1.68	6.30	126	132	6.23	31.9	38.1	1,676	215,093	216,769	177	6.01	108	223,097
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	107	260	117	549	1.58	6.18	126	132	6.14	31.9	38.0	1,676	204,992	206,668	178	6.59	39.0	213,123
Mit.	107	260	117	549	1.58	6.18	126	132	6.14	31.9	38.0	1,676	204,991	206,667	178	6.59	39.0	213,122
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	112	268	79.6	619	1.37	3.34	125	128	3.29	31.7	35.0	1,676	161,580	163,256	177	6.27	67.8	169,616
Mit.	112	268	79.6	619	1.37	3.34	125	128	3.29	31.7	35.0	1,676	161,580	163,256	177	6.27	67.8	169,616
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	20.5	48.9	14.5	113	0.25	0.61	22.8	23.4	0.60	5.78	6.38	278	26,751	27,029	29.3	1.04	11.2	28,082
Mit.	20.5	48.9	14.5	113	0.25	0.61	22.8	23.4	0.60	5.78	6.38	278	26,751	27,029	29.3	1.04	11.2	28,082
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	105	100	39.8	547	1.23	0.54	126	126	0.51	31.9	32.4	—	124,753	124,753	5.10	5.05	71.0	126,457
Area	25.6	184	48.1	219	0.30	3.86	—	3.86	3.83	—	3.83	0.00	59,291	59,291	1.13	0.12	—	59,354
Energy	2.74	1.37	23.7	11.7	0.15	1.90	—	1.90	1.90	—	1.90	—	31,008	31,008	2.63	0.06	—	31,091
Water	—	—	—	—	—	—	—	—	—	—	—	321	40.5	362	32.9	0.78	—	1,419

Waste	—	—	—	—	—	—	—	—	—	—	—	1,355	0.00	1,355	135	0.00	—	4,740
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37.2	37.2
Total	133	286	112	778	1.68	6.30	126	132	6.23	31.9	38.1	1,676	215,093	216,769	177	6.01	108	223,098
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	98.7	93.7	47.5	518	1.13	0.54	126	126	0.51	31.9	32.4	—	115,216	115,216	6.03	5.64	1.84	117,049
Area	5.41	165	46.3	19.7	0.30	3.74	—	3.74	3.74	—	3.74	0.00	58,727	58,727	1.11	0.11	—	58,788
Energy	2.74	1.37	23.7	11.7	0.15	1.90	—	1.90	1.90	—	1.90	—	31,008	31,008	2.63	0.06	—	31,091
Water	—	—	—	—	—	—	—	—	—	—	—	321	40.5	362	32.9	0.78	—	1,419
Waste	—	—	—	—	—	—	—	—	—	—	—	1,355	0.00	1,355	135	0.00	—	4,740
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37.2	37.2
Total	107	260	117	549	1.58	6.18	126	132	6.14	31.9	38.0	1,676	204,992	206,668	178	6.59	39.0	213,123
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	98.5	93.6	44.6	505	1.15	0.54	125	125	0.51	31.7	32.2	—	117,060	117,060	5.65	5.41	30.7	118,843
Area	11.2	173	11.3	103	0.07	0.90	—	0.90	0.88	—	0.88	0.00	13,472	13,472	0.26	0.03	—	13,486
Energy	2.74	1.37	23.7	11.7	0.15	1.90	—	1.90	1.90	—	1.90	—	31,008	31,008	2.63	0.06	—	31,091
Water	—	—	—	—	—	—	—	—	—	—	—	321	40.5	362	32.9	0.78	—	1,419
Waste	—	—	—	—	—	—	—	—	—	—	—	1,355	0.00	1,355	135	0.00	—	4,740
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37.2	37.2
Total	112	268	79.6	619	1.37	3.34	125	128	3.29	31.7	35.0	1,676	161,580	163,256	177	6.27	67.8	169,616
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	18.0	17.1	8.14	92.1	0.21	0.10	22.8	22.9	0.09	5.78	5.87	—	19,381	19,381	0.94	0.90	5.08	19,676
Area	2.04	31.5	2.06	18.8	0.01	0.16	—	0.16	0.16	—	0.16	0.00	2,230	2,230	0.04	< 0.005	—	2,233
Energy	0.50	0.25	4.32	2.13	0.03	0.35	—	0.35	0.35	—	0.35	—	5,134	5,134	0.44	0.01	—	5,147
Water	—	—	—	—	—	—	—	—	—	—	—	53.2	6.70	59.9	5.45	0.13	—	235
Waste	—	—	—	—	—	—	—	—	—	—	—	224	0.00	224	22.4	0.00	—	785
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.15	6.15

Total	20.5	48.9	14.5	113	0.25	0.61	22.8	23.4	0.60	5.78	6.38	278	26,751	27,029	29.3	1.04	11.2	28,082

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	105	100	39.8	547	1.23	0.54	126	126	0.51	31.9	32.4	—	124,753	124,753	5.10	5.05	71.0	126,457
Area	25.6	184	48.1	219	0.30	3.86	—	3.86	3.83	—	3.83	0.00	59,291	59,291	1.13	0.12	—	59,354
Energy	2.74	1.37	23.7	11.7	0.15	1.90	—	1.90	1.90	—	1.90	—	31,008	31,008	2.63	0.06	—	31,090
Water	—	—	—	—	—	—	—	—	—	—	—	321	40.5	362	32.9	0.78	—	1,419
Waste	—	—	—	—	—	—	—	—	—	—	—	1,355	0.00	1,355	135	0.00	—	4,740
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37.2	37.2
Total	133	286	112	778	1.68	6.30	126	132	6.23	31.9	38.1	1,676	215,093	216,769	177	6.01	108	223,097
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	98.7	93.7	47.5	518	1.13	0.54	126	126	0.51	31.9	32.4	—	115,216	115,216	6.03	5.64	1.84	117,049
Area	5.41	165	46.3	19.7	0.30	3.74	—	3.74	3.74	—	3.74	0.00	58,727	58,727	1.11	0.11	—	58,788
Energy	2.74	1.37	23.7	11.7	0.15	1.90	—	1.90	1.90	—	1.90	—	31,008	31,008	2.63	0.06	—	31,090
Water	—	—	—	—	—	—	—	—	—	—	—	321	40.5	362	32.9	0.78	—	1,419
Waste	—	—	—	—	—	—	—	—	—	—	—	1,355	0.00	1,355	135	0.00	—	4,740
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37.2	37.2
Total	107	260	117	549	1.58	6.18	126	132	6.14	31.9	38.0	1,676	204,991	206,667	178	6.59	39.0	213,122
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	98.5	93.6	44.6	505	1.15	0.54	125	125	0.51	31.7	32.2	—	117,060	117,060	5.65	5.41	30.7	118,843
Area	11.2	173	11.3	103	0.07	0.90	—	0.90	0.88	—	0.88	0.00	13,472	13,472	0.26	0.03	—	13,486

Energy	2.74	1.37	23.7	11.7	0.15	1.90	—	1.90	1.90	—	1.90	—	31,008	31,008	2.63	0.06	—	31,090
Water	—	—	—	—	—	—	—	—	—	—	—	321	40.5	362	32.9	0.78	—	1,419
Waste	—	—	—	—	—	—	—	—	—	—	—	1,355	0.00	1,355	135	0.00	—	4,740
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37.2	37.2
Total	112	268	79.6	619	1.37	3.34	125	128	3.29	31.7	35.0	1,676	161,580	163,256	177	6.27	67.8	169,616
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	18.0	17.1	8.14	92.1	0.21	0.10	22.8	22.9	0.09	5.78	5.87	—	19,381	19,381	0.94	0.90	5.08	19,676
Area	2.04	31.5	2.06	18.8	0.01	0.16	—	0.16	0.16	—	0.16	0.00	2,230	2,230	0.04	< 0.005	—	2,233
Energy	0.50	0.25	4.32	2.13	0.03	0.35	—	0.35	0.35	—	0.35	—	5,134	5,134	0.44	0.01	—	5,147
Water	—	—	—	—	—	—	—	—	—	—	—	53.2	6.70	59.9	5.45	0.13	—	235
Waste	—	—	—	—	—	—	—	—	—	—	—	224	0.00	224	22.4	0.00	—	785
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.15	6.15
Total	20.5	48.9	14.5	113	0.25	0.61	22.8	23.4	0.60	5.78	6.38	278	26,751	27,029	29.3	1.04	11.2	28,082

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	146	146	0.00	0.00	—	146
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	101	101	0.00	0.00	—	101
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	651	651	0.00	0.00	—	651
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	17.2	17.2	0.00	0.00	—	17.2
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	35.8	35.8	0.00	0.00	—	35.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	287	287	0.00	0.00	—	287
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,237	1,237	0.00	0.00	—	1,237
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	146	146	0.00	0.00	—	146
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	101	101	0.00	0.00	—	101

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	651	651	0.00	0.00	—	651
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	17.2	17.2	0.00	0.00	—	17.2
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	35.8	35.8	0.00	0.00	—	35.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	287	287	0.00	0.00	—	287
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,237	1,237	0.00	0.00	—	1,237
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	24.2	24.2	0.00	0.00	—	24.2
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	16.7	16.7	0.00	0.00	—	16.7
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	108	108	0.00	0.00	—	108
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	2.85	2.85	0.00	0.00	—	2.85
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	5.92	5.92	0.00	0.00	—	5.92

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	47.4	47.4	0.00	0.00	—	47.4
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	205	205	0.00	0.00	—	205

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	146	146	0.00	0.00	—	146
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	101	101	0.00	0.00	—	101
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	650	650	0.00	0.00	—	650
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	17.2	17.2	0.00	0.00	—	17.2
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	35.8	35.8	0.00	0.00	—	35.8

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	287	287	0.00	0.00	—	287
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,236	1,236	0.00	0.00	—	1,236
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	146	146	0.00	0.00	—	146
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	101	101	0.00	0.00	—	101
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	650	650	0.00	0.00	—	650
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	17.2	17.2	0.00	0.00	—	17.2
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	35.8	35.8	0.00	0.00	—	35.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	287	287	0.00	0.00	—	287
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,236	1,236	0.00	0.00	—	1,236

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	24.1	24.1	0.00	0.00	—	24.1
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	16.6	16.6	0.00	0.00	—	16.6
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	108	108	0.00	0.00	—	108
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	2.85	2.85	0.00	0.00	—	2.85
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	5.92	5.92	0.00	0.00	—	5.92
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	47.4	47.4	0.00	0.00	—	47.4
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	205	205	0.00	0.00	—	205

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,127	5,127	0.45	0.01	—	5,142
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.60	0.80	13.7	5.81	0.09	1.10	—	1.10	1.10	—	1.10	—	17,331	17,331	1.53	0.03	—	17,379
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.74	1.37	23.7	11.7	0.15	1.90	—	1.90	1.90	—	1.90	—	29,771	29,771	2.63	0.06	—	29,854
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,127	5,127	0.45	0.01	—	5,142
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.60	0.80	13.7	5.81	0.09	1.10	—	1.10	1.10	—	1.10	—	17,331	17,331	1.53	0.03	—	17,379

Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.74	1.37	23.7	11.7	0.15	1.90	—	1.90	1.90	—	1.90	—	29,771	29,771	2.63	0.06	—	29,854
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.09	0.04	0.74	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	849	849	0.08	< 0.005	—	851
Apartments Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.29	0.15	2.49	1.06	0.02	0.20	—	0.20	0.20	—	0.20	—	2,869	2,869	0.25	0.01	—	2,877
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	45.8	45.8	< 0.005	< 0.005	—	45.9
General Office Building	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	511	511	0.05	< 0.005	—	512

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.50	0.25	4.32	2.13	0.03	0.35	—	0.35	0.35	—	0.35	—	4,929	4,929	0.44	0.01	—	4,943

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,127	5,127	0.45	0.01	—	5,142
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.60	0.80	13.7	5.81	0.09	1.10	—	1.10	1.10	—	1.10	—	17,331	17,331	1.53	0.03	—	17,379
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.74	1.37	23.7	11.7	0.15	1.90	—	1.90	1.90	—	1.90	—	29,771	29,771	2.63	0.06	—	29,854
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.47	0.24	4.04	1.72	0.03	0.33	—	0.33	0.33	—	0.33	—	5,127	5,127	0.45	0.01	—	5,142
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.60	0.80	13.7	5.81	0.09	1.10	—	1.10	1.10	—	1.10	—	17,331	17,331	1.53	0.03	—	17,379
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.74	1.37	23.7	11.7	0.15	1.90	—	1.90	1.90	—	1.90	—	29,771	29,771	2.63	0.06	—	29,854
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.09	0.04	0.74	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	849	849	0.08	< 0.005	—	851

Apartme Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.29	0.15	2.49	1.06	0.02	0.20	—	0.20	0.20	—	0.20	—	2,869	2,869	0.25	0.01	—	2,877
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211
Element ary School	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	45.8	45.8	< 0.005	< 0.005	—	45.9
General Office Building	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	511	511	0.05	< 0.005	—	512
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.50	0.25	4.32	2.13	0.03	0.35	—	0.35	0.35	—	0.35	—	4,929	4,929	0.44	0.01	—	4,943

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.41	2.71	46.3	19.7	0.30	3.74	—	3.74	3.74	—	3.74	0.00	58,727	58,727	1.11	0.11	—	58,788
Consum er Products	—	117	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	45.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	20.2	19.0	1.82	200	0.01	0.12	—	0.12	0.09	—	0.09	—	564	564	0.02	< 0.005	—	566
Total	25.6	184	48.1	219	0.30	3.86	—	3.86	3.83	—	3.83	0.00	59,291	59,291	1.13	0.12	—	59,354
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.41	2.71	46.3	19.7	0.30	3.74	—	3.74	3.74	—	3.74	0.00	58,727	58,727	1.11	0.11	—	58,788
Consumer Products	—	117	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	45.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.41	165	46.3	19.7	0.30	3.74	—	3.74	3.74	—	3.74	0.00	58,727	58,727	1.11	0.11	—	58,788
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.22	0.11	1.90	0.81	0.01	0.15	—	0.15	0.15	—	0.15	0.00	2,184	2,184	0.04	< 0.005	—	2,187
Consumer Products	—	21.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	8.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.82	1.71	0.16	18.0	< 0.005	0.01	—	0.01	0.01	—	0.01	—	46.0	46.0	< 0.005	< 0.005	—	46.2
Total	2.04	31.5	2.06	18.8	0.01	0.16	—	0.16	0.16	—	0.16	0.00	2,230	2,230	0.04	< 0.005	—	2,233

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.41	2.71	46.3	19.7	0.30	3.74	—	3.74	3.74	—	3.74	0.00	58,727	58,727	1.11	0.11	—	58,788
Consumer Products	—	117	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	45.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	20.2	19.0	1.82	200	0.01	0.12	—	0.12	0.09	—	0.09	—	564	564	0.02	< 0.005	—	566
Total	25.6	184	48.1	219	0.30	3.86	—	3.86	3.83	—	3.83	0.00	59,291	59,291	1.13	0.12	—	59,354
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.41	2.71	46.3	19.7	0.30	3.74	—	3.74	3.74	—	3.74	0.00	58,727	58,727	1.11	0.11	—	58,788
Consumer Products	—	117	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	45.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.41	165	46.3	19.7	0.30	3.74	—	3.74	3.74	—	3.74	0.00	58,727	58,727	1.11	0.11	—	58,788
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.22	0.11	1.90	0.81	0.01	0.15	—	0.15	0.15	—	0.15	0.00	2,184	2,184	0.04	< 0.005	—	2,187
Consumer Products	—	21.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	8.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.82	1.71	0.16	18.0	< 0.005	0.01	—	0.01	0.01	—	0.01	—	46.0	46.0	< 0.005	< 0.005	—	46.2
Total	2.04	31.5	2.06	18.8	0.01	0.16	—	0.16	0.16	—	0.16	0.00	2,230	2,230	0.04	< 0.005	—	2,233

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	42.2	2.83	45.1	4.33	0.10	—	184
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	2.27	36.0	3.46	0.08	—	147
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	114	26.6	141	11.7	0.28	—	515
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.24	3.86	0.37	0.01	—	15.8
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	14.2	0.95	15.1	1.46	0.03	—	61.8

General Office Building	—	—	—	—	—	—	—	—	—	—	—	114	7.62	121	11.6	0.28	—	495
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	321	40.5	362	32.9	0.78	—	1,419
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	42.2	2.83	45.1	4.33	0.10	—	184
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	2.27	36.0	3.46	0.08	—	147
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	114	26.6	141	11.7	0.28	—	515
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.24	3.86	0.37	0.01	—	15.8
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	14.2	0.95	15.1	1.46	0.03	—	61.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	114	7.62	121	11.6	0.28	—	495
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	321	40.5	362	32.9	0.78	—	1,419

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.99	0.47	7.46	0.72	0.02	—	30.5
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	5.59	0.38	5.97	0.57	0.01	—	24.4
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	18.9	4.40	23.3	1.93	0.05	—	85.3
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.60	0.04	0.64	0.06	< 0.005	—	2.61
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	2.35	0.16	2.51	0.24	0.01	—	10.2
General Office Building	—	—	—	—	—	—	—	—	—	—	—	18.8	1.26	20.1	1.93	0.05	—	81.9
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	53.2	6.70	59.9	5.45	0.13	—	235

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	42.2	2.83	45.1	4.33	0.10	—	184
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	2.27	36.0	3.46	0.08	—	147
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	114	26.6	141	11.7	0.28	—	515
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.24	3.86	0.37	0.01	—	15.8
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	14.2	0.95	15.1	1.46	0.03	—	61.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	114	7.62	121	11.6	0.28	—	495
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	321	40.5	362	32.9	0.78	—	1,419
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	42.2	2.83	45.1	4.33	0.10	—	184
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	2.27	36.0	3.46	0.08	—	147
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	114	26.6	141	11.7	0.28	—	515

Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.24	3.86	0.37	0.01	—	15.8
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	14.2	0.95	15.1	1.46	0.03	—	61.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	114	7.62	121	11.6	0.28	—	495
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	321	40.5	362	32.9	0.78	—	1,419
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	6.99	0.47	7.46	0.72	0.02	—	30.5
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	5.59	0.38	5.97	0.57	0.01	—	24.4
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	18.9	4.40	23.3	1.93	0.05	—	85.3
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.60	0.04	0.64	0.06	< 0.005	—	2.61
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	2.35	0.16	2.51	0.24	0.01	—	10.2
General Office Building	—	—	—	—	—	—	—	—	—	—	—	18.8	1.26	20.1	1.93	0.05	—	81.9

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	53.2	6.70	59.9	5.45	0.13	—	235

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	275	0.00	275	27.4	0.00	—	961
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	558	0.00	558	55.8	0.00	—	1,953
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585

City Park	—	—	—	—	—	—	—	—	—	—	—	2.09	0.00	2.09	0.21	0.00	—	7.30
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,355	0.00	1,355	135	0.00	—	4,740
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	275	0.00	275	27.4	0.00	—	961
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	558	0.00	558	55.8	0.00	—	1,953
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.09	0.00	2.09	0.21	0.00	—	7.30
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,355	0.00	1,355	135	0.00	—	4,740
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	45.5	0.00	45.5	4.54	0.00	—	159
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	92.4	0.00	92.4	9.24	0.00	—	323
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.37	0.00	9.37	0.94	0.00	—	32.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	27.7	0.00	27.7	2.76	0.00	—	96.8
City Park	—	—	—	—	—	—	—	—	—	—	—	0.35	0.00	0.35	0.03	0.00	—	1.21
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	224	0.00	224	22.4	0.00	—	785

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	275	0.00	275	27.4	0.00	—	961
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	558	0.00	558	55.8	0.00	—	1,953
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.09	0.00	2.09	0.21	0.00	—	7.30
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,355	0.00	1,355	135	0.00	—	4,740
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	275	0.00	275	27.4	0.00	—	961
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	558	0.00	558	55.8	0.00	—	1,953

Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.09	0.00	2.09	0.21	0.00	—	7.30
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,355	0.00	1,355	135	0.00	—	4,740
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	45.5	0.00	45.5	4.54	0.00	—	159
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	92.4	0.00	92.4	9.24	0.00	—	323
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.37	0.00	9.37	0.94	0.00	—	32.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	27.7	0.00	27.7	2.76	0.00	—	96.8

City Park	—	—	—	—	—	—	—	—	—	—	—	0.35	0.00	0.35	0.03	0.00	—	1.21
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	224	0.00	224	22.4	0.00	—	785

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.23	5.23
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	26.0	26.0
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81

City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37.2	37.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.23	5.23
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	26.0	26.0
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37.2	37.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.87	0.87
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.30	4.30
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.15	6.15

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.23	5.23
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	26.0	26.0

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37.2	37.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.23	5.23
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	26.0	26.0
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	37.2	37.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.87	0.87
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.30	4.30
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.15	6.15

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	36,718	36,718	36,718	13,402,162	177,448	177,448	177,448	64,768,375

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	36,718	36,718	36,718	13,402,162	177,448	177,448	177,448	64,768,375

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	620
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	496
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1673

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	620
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	496
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1673
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
10002386.25	3,334,129	787,376	262,459	28,750

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,554,663	15.0	0.0000	0.0000	15,998,542
Apartments Low Rise	2,449,123	15.0	0.0000	0.0000	8,374,722
Single Family Housing	15,849,294	15.0	0.0000	0.0000	54,078,357
Junior High School	419,734	15.0	0.0000	0.0000	3,957,049
Elementary School	0.00	15.0	0.0000	0.0000	0.00
Strip Mall	871,207	15.0	0.0000	0.0000	862,560
General Office Building	6,976,501	15.0	0.0000	0.0000	9,623,084
City Park	0.00	15.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	15.0	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,551,267	15.0	0.0000	0.0000	15,998,542
Apartments Low Rise	2,447,762	15.0	0.0000	0.0000	8,374,722
Single Family Housing	15,838,593	15.0	0.0000	0.0000	54,078,357
Junior High School	419,734	15.0	0.0000	0.0000	3,957,049
Elementary School	0.00	15.0	0.0000	0.0000	0.00
Strip Mall	871,207	15.0	0.0000	0.0000	862,560
General Office Building	6,976,501	15.0	0.0000	0.0000	9,623,084

City Park	0.00	15.0	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	15.0	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	22,037,631	0.00
Apartments Low Rise	17,623,707	0.00
Single Family Housing	59,460,022	285,603,354
Junior High School	1,888,483	0.00
Elementary School	0.00	0.00
Strip Mall	7,407,252	0.00
General Office Building	59,245,057	0.00
City Park	0.00	1,073
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	22,037,631	0.00
Apartments Low Rise	17,623,707	0.00
Single Family Housing	59,460,022	285,603,354
Junior High School	1,888,483	0.00
Elementary School	0.00	0.00
Strip Mall	7,407,252	0.00
General Office Building	59,245,057	0.00
City Park	0.00	1,073

Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	509	—
Apartments Low Rise	408	—
Single Family Housing	1,036	—
Junior High School	142	—
Elementary School	0.00	—
Strip Mall	105	—
General Office Building	310	—
City Park	3.87	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	509	—
Apartments Low Rise	408	—
Single Family Housing	1,036	—
Junior High School	142	—
Elementary School	0.00	—
Strip Mall	105	—
General Office Building	310	—
City Park	3.87	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9

AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—

Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8

Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Road Dust	Paved road dust percentage updated per discussions with team

MV OP 17 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 17
Operational Year	2043
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	722	Dwelling Unit	84.0	765,320	0.00	—	1,834	—

Apartments Low Rise	551	Dwelling Unit	28.0	584,060	0.00	—	1,400	—
Single Family Housing	1,963	Dwelling Unit	685	3,827,850	22,992,338	—	4,986	—
Junior High School	779	Student	19.0	91,581	0.00	0.00	—	—
Elementary School	614	Student	16.0	51,331	0.00	0.00	—	—
Strip Mall	100	1000sqft	2.30	100,000	0.00	—	—	—
General Office Building	333	1000sqft	7.65	333,336	0.00	—	—	—
City Park	52.0	Acre	52.0	0.00	52.0	52.0	—	—
Other Asphalt Surfaces	11.0	Acre	11.0	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances
Energy	E-10-B	Establish Onsite Renewable Energy Systems: Solar Power

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	136	297	116	822	1.80	6.60	137	143	6.53	34.7	41.2	2,001	228,889	230,891	211	6.78	106	238,286
Mit.	136	297	116	822	1.80	6.60	137	143	6.53	34.7	41.2	2,001	228,262	230,264	211	6.78	106	237,658

% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	108	270	122	575	1.69	6.47	137	143	6.44	34.7	41.1	2,001	217,920	219,922	212	7.39	40.8	227,456
Mit.	108	270	122	575	1.69	6.47	137	143	6.44	34.7	41.1	2,001	217,293	219,295	212	7.39	40.8	226,829
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	114	278	82.7	651	1.47	3.51	136	139	3.46	34.4	37.9	2,001	172,675	174,677	210	7.07	68.0	182,109
Mit.	114	278	82.7	651	1.47	3.51	136	139	3.46	34.4	37.9	2,001	172,048	174,049	210	7.07	68.0	181,481
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	20.8	50.7	15.1	119	0.27	0.64	24.8	25.4	0.63	6.29	6.92	331	28,588	28,920	34.8	1.17	11.3	30,150
Mit.	20.8	50.7	15.1	119	0.27	0.64	24.8	25.4	0.63	6.29	6.92	331	28,484	28,816	34.8	1.17	11.3	30,046
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	< 0.5%	< 0.5%	—	—	—	< 0.5%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	106	101	40.7	579	1.32	0.55	137	137	0.51	34.7	35.2	—	134,375	134,375	5.25	5.28	66.9	136,148
Area	27.0	194	50.2	230	0.32	4.03	—	4.03	4.00	—	4.00	0.00	61,917	61,917	1.18	0.12	—	61,982

Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	32,557	32,557	2.81	0.06	—	32,645
Water	—	—	—	—	—	—	—	—	—	—	—	542	40.2	582	55.5	1.32	—	2,363
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	136	297	116	822	1.80	6.60	137	143	6.53	34.7	41.2	2,001	228,889	230,891	211	6.78	106	238,286
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	99.7	94.6	48.6	542	1.22	0.55	137	137	0.51	34.7	35.2	—	124,000	124,000	6.18	5.90	1.74	125,914
Area	5.65	174	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	32,557	32,557	2.81	0.06	—	32,645
Water	—	—	—	—	—	—	—	—	—	—	—	542	40.2	582	55.5	1.32	—	2,363
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	108	270	122	575	1.69	6.47	137	143	6.44	34.7	41.1	2,001	217,920	219,922	212	7.39	40.8	227,456
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	99.5	94.5	45.7	531	1.24	0.55	136	136	0.51	34.4	35.0	—	126,008	126,008	5.81	5.66	28.9	127,869
Area	11.8	182	11.8	108	0.07	0.94	—	0.94	0.92	—	0.92	0.00	14,070	14,070	0.27	0.03	—	14,085
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	32,557	32,557	2.81	0.06	—	32,645
Water	—	—	—	—	—	—	—	—	—	—	—	542	40.2	582	55.5	1.32	—	2,363
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	114	278	82.7	651	1.47	3.51	136	139	3.46	34.4	37.9	2,001	172,675	174,677	210	7.07	68.0	182,109
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	18.2	17.2	8.33	96.8	0.23	0.10	24.8	24.9	0.09	6.29	6.38	—	20,862	20,862	0.96	0.94	4.78	21,170
Area	2.15	33.2	2.15	19.7	0.01	0.17	—	0.17	0.17	—	0.17	0.00	2,329	2,329	0.04	< 0.005	—	2,332
Energy	0.53	0.27	4.61	2.30	0.03	0.37	—	0.37	0.37	—	0.37	—	5,390	5,390	0.46	0.01	—	5,405
Water	—	—	—	—	—	—	—	—	—	—	—	89.7	6.66	96.3	9.19	0.22	—	391

Waste	—	—	—	—	—	—	—	—	—	—	—	242	0.00	242	24.2	0.00	—	846
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.47	6.47
Total	20.8	50.7	15.1	119	0.27	0.64	24.8	25.4	0.63	6.29	6.92	331	28,588	28,920	34.8	1.17	11.3	30,150

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	106	101	40.7	579	1.32	0.55	137	137	0.51	34.7	35.2	—	134,375	134,375	5.25	5.28	66.9	136,148
Area	27.0	194	50.2	230	0.32	4.03	—	4.03	4.00	—	4.00	0.00	61,917	61,917	1.18	0.12	—	61,982
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,930	31,930	2.81	0.06	—	32,018
Water	—	—	—	—	—	—	—	—	—	—	—	542	40.2	582	55.5	1.32	—	2,363
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	136	297	116	822	1.80	6.60	137	143	6.53	34.7	41.2	2,001	228,262	230,264	211	6.78	106	237,658
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	99.7	94.6	48.6	542	1.22	0.55	137	137	0.51	34.7	35.2	—	124,000	124,000	6.18	5.90	1.74	125,914
Area	5.65	174	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,930	31,930	2.81	0.06	—	32,018
Water	—	—	—	—	—	—	—	—	—	—	—	542	40.2	582	55.5	1.32	—	2,363
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	108	270	122	575	1.69	6.47	137	143	6.44	34.7	41.1	2,001	217,293	219,295	212	7.39	40.8	226,829
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	99.5	94.5	45.7	531	1.24	0.55	136	136	0.51	34.4	35.0	—	126,008	126,008	5.81	5.66	28.9	127,869
Area	11.8	182	11.8	108	0.07	0.94	—	0.94	0.92	—	0.92	0.00	14,070	14,070	0.27	0.03	—	14,085
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,930	31,930	2.81	0.06	—	32,018
Water	—	—	—	—	—	—	—	—	—	—	—	542	40.2	582	55.5	1.32	—	2,363
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	114	278	82.7	651	1.47	3.51	136	139	3.46	34.4	37.9	2,001	172,048	174,049	210	7.07	68.0	181,481
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	18.2	17.2	8.33	96.8	0.23	0.10	24.8	24.9	0.09	6.29	6.38	—	20,862	20,862	0.96	0.94	4.78	21,170
Area	2.15	33.2	2.15	19.7	0.01	0.17	—	0.17	0.17	—	0.17	0.00	2,329	2,329	0.04	< 0.005	—	2,332
Energy	0.53	0.27	4.61	2.30	0.03	0.37	—	0.37	0.37	—	0.37	—	5,286	5,286	0.46	0.01	—	5,301
Water	—	—	—	—	—	—	—	—	—	—	—	89.7	6.66	96.3	9.19	0.22	—	391
Waste	—	—	—	—	—	—	—	—	—	—	—	242	0.00	242	24.2	0.00	—	846
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.47	6.47
Total	20.8	50.7	15.1	119	0.27	0.64	24.8	25.4	0.63	6.29	6.92	331	28,484	28,816	34.8	1.17	11.3	30,046

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	102	102	0.00	0.00	—	102
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	67.1	67.1	0.00	0.00	—	67.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	458	458	0.00	0.00	—	458
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	11.5	11.5	0.00	0.00	—	11.5
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	6.44	6.44	0.00	0.00	—	6.44
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	23.9	23.9	0.00	0.00	—	23.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	191	191	0.00	0.00	—	191
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	860	860	0.00	0.00	—	860
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	102	102	0.00	0.00	—	102
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	67.1	67.1	0.00	0.00	—	67.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	458	458	0.00	0.00	—	458
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	11.5	11.5	0.00	0.00	—	11.5
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	6.44	6.44	0.00	0.00	—	6.44
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	23.9	23.9	0.00	0.00	—	23.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	191	191	0.00	0.00	—	191
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	860	860	0.00	0.00	—	860
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	16.9	16.9	0.00	0.00	—	16.9
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	11.1	11.1	0.00	0.00	—	11.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	75.9	75.9	0.00	0.00	—	75.9

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	1.90	1.90	0.00	0.00	—	1.90
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	1.07	1.07	0.00	0.00	—	1.07
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	3.95	3.95	0.00	0.00	—	3.95
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	31.6	31.6	0.00	0.00	—	31.6
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	142	142	0.00	0.00	—	142

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	0.00	0.00	—	< 0.005

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	11.5	11.5	0.00	0.00	—	11.5
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	6.44	6.44	0.00	0.00	—	6.44
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	23.9	23.9	0.00	0.00	—	23.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	191	191	0.00	0.00	—	191
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	233	233	0.00	0.00	—	233
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	11.5	11.5	0.00	0.00	—	11.5
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	6.44	6.44	0.00	0.00	—	6.44
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	23.9	23.9	0.00	0.00	—	23.9

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	191	191	0.00	0.00	—	191
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	233	233	0.00	0.00	—	233
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005	0.00	0.00	—	< 0.005
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	1.90	1.90	0.00	0.00	—	1.90
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	1.07	1.07	0.00	0.00	—	1.07
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	3.95	3.95	0.00	0.00	—	3.95
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	31.6	31.6	0.00	0.00	—	31.6
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	38.5	38.5	0.00	0.00	—	38.5

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.50	0.25	4.23	1.80	0.03	0.34	—	0.34	0.34	—	0.34	—	5,373	5,373	0.48	0.01	—	5,388
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.69	0.84	14.4	6.14	0.09	1.17	—	1.17	1.17	—	1.17	—	18,301	18,301	1.62	0.03	—	18,352
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713
Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/T	0.50	0.25	4.23	1.80	0.03	0.34	—	0.34	0.34	—	0.34	—	5,373	5,373	0.48	0.01	—	5,388
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.69	0.84	14.4	6.14	0.09	1.17	—	1.17	1.17	—	1.17	—	18,301	18,301	1.62	0.03	—	18,352
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713
Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.09	0.05	0.77	0.33	< 0.005	0.06	—	0.06	0.06	—	0.06	—	890	890	0.08	< 0.005	—	892
Apartments Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.31	0.15	2.63	1.12	0.02	0.21	—	0.21	0.21	—	0.21	—	3,030	3,030	0.27	0.01	—	3,038
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211

Element School	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	118	118	0.01	< 0.005	—	118
Strip Mall	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	45.8	45.8	< 0.005	< 0.005	—	45.9
General Office Building	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	511	511	0.05	< 0.005	—	512
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.53	0.27	4.61	2.30	0.03	0.37	—	0.37	0.37	—	0.37	—	5,248	5,248	0.46	0.01	—	5,262

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.50	0.25	4.23	1.80	0.03	0.34	—	0.34	0.34	—	0.34	—	5,373	5,373	0.48	0.01	—	5,388
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.69	0.84	14.4	6.14	0.09	1.17	—	1.17	1.17	—	1.17	—	18,301	18,301	1.62	0.03	—	18,352
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713

Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.50	0.25	4.23	1.80	0.03	0.34	—	0.34	0.34	—	0.34	—	5,373	5,373	0.48	0.01	—	5,388
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.69	0.84	14.4	6.14	0.09	1.17	—	1.17	1.17	—	1.17	—	18,301	18,301	1.62	0.03	—	18,352
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713
Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.09	0.05	0.77	0.33	< 0.005	0.06	—	0.06	0.06	—	0.06	—	890	890	0.08	< 0.005	—	892
Apartments Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.31	0.15	2.63	1.12	0.02	0.21	—	0.21	0.21	—	0.21	—	3,030	3,030	0.27	0.01	—	3,038
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211
Elementary School	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	118	118	0.01	< 0.005	—	118
Strip Mall	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	45.8	45.8	< 0.005	< 0.005	—	45.9
General Office Building	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	511	511	0.05	< 0.005	—	512
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.53	0.27	4.61	2.30	0.03	0.37	—	0.37	0.37	—	0.37	—	5,248	5,248	0.46	0.01	—	5,262

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.65	2.83	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Consumer Products	—	123	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	48.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	21.3	20.1	1.91	210	0.01	0.13	—	0.13	0.10	—	0.10	—	594	594	0.02	< 0.005	—	596
Total	27.0	194	50.2	230	0.32	4.03	—	4.03	4.00	—	4.00	0.00	61,917	61,917	1.18	0.12	—	61,982
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.65	2.83	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Consumer Products	—	123	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	48.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.65	174	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.23	0.12	1.98	0.84	0.01	0.16	—	0.16	0.16	—	0.16	0.00	2,281	2,281	0.04	< 0.005	—	2,283
Consumer Products	—	22.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	8.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	1.92	1.81	0.17	18.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.5	48.5	< 0.005	< 0.005	—	48.7
Total	2.15	33.2	2.15	19.7	0.01	0.17	—	0.17	0.17	—	0.17	0.00	2,329	2,329	0.04	< 0.005	—	2,332

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.65	2.83	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Consumer Products	—	123	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	48.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	21.3	20.1	1.91	210	0.01	0.13	—	0.13	0.10	—	0.10	—	594	594	0.02	< 0.005	—	596
Total	27.0	194	50.2	230	0.32	4.03	—	4.03	4.00	—	4.00	0.00	61,917	61,917	1.18	0.12	—	61,982
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.65	2.83	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Consumer Products	—	123	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	48.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.65	174	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.23	0.12	1.98	0.84	0.01	0.16	—	0.16	0.16	—	0.16	0.00	2,281	2,281	0.04	< 0.005	—	2,283
Consumer Products	—	22.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	8.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.92	1.81	0.17	18.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.5	48.5	< 0.005	< 0.005	—	48.7
Total	2.15	33.2	2.15	19.7	0.01	0.17	—	0.17	0.17	—	0.17	0.00	2,329	2,329	0.04	< 0.005	—	2,332

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	84.1	5.80	89.9	8.62	0.20	—	366
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	27.0	1.86	28.9	2.77	0.07	—	118
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	379	26.1	405	38.9	0.92	—	1,651

Junior High School	—	—	—	—	—	—	—	—	—	—	—	4.75	0.54	5.30	0.49	0.01	—	20.9
Elementary School	—	—	—	—	—	—	—	—	—	—	—	4.00	0.46	4.46	0.41	0.01	—	17.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	12.0	0.77	12.8	1.23	0.03	—	52.3
General Office Building	—	—	—	—	—	—	—	—	—	—	—	30.8	1.96	32.8	3.16	0.08	—	134
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.12	2.12	0.00	0.00	—	2.12
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.59	0.59	0.00	0.00	—	0.59
Total	—	—	—	—	—	—	—	—	—	—	—	542	40.2	582	55.5	1.32	—	2,363
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	84.1	5.80	89.9	8.62	0.20	—	366
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	27.0	1.86	28.9	2.77	0.07	—	118
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	379	26.1	405	38.9	0.92	—	1,651
Junior High School	—	—	—	—	—	—	—	—	—	—	—	4.75	0.54	5.30	0.49	0.01	—	20.9
Elementary School	—	—	—	—	—	—	—	—	—	—	—	4.00	0.46	4.46	0.41	0.01	—	17.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	12.0	0.77	12.8	1.23	0.03	—	52.3

General Office Building	—	—	—	—	—	—	—	—	—	—	—	30.8	1.96	32.8	3.16	0.08	—	134
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.12	2.12	0.00	0.00	—	2.12
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.59	0.59	0.00	0.00	—	0.59
Total	—	—	—	—	—	—	—	—	—	—	—	542	40.2	582	55.5	1.32	—	2,363
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	13.9	0.96	14.9	1.43	0.03	—	60.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	4.47	0.31	4.78	0.46	0.01	—	19.5
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	62.7	4.33	67.1	6.43	0.15	—	273
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.79	0.09	0.88	0.08	< 0.005	—	3.46
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.66	0.08	0.74	0.07	< 0.005	—	2.92
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.99	0.13	2.12	0.20	< 0.005	—	8.66
General Office Building	—	—	—	—	—	—	—	—	—	—	—	5.10	0.32	5.42	0.52	0.01	—	22.2
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.35	0.35	0.00	0.00	—	0.35
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.10	0.10	0.00	0.00	—	0.10
Total	—	—	—	—	—	—	—	—	—	—	—	89.7	6.66	96.3	9.19	0.22	—	391

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	84.1	5.80	89.9	8.62	0.20	—	366
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	27.0	1.86	28.9	2.77	0.07	—	118
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	379	26.1	405	38.9	0.92	—	1,651
Junior High School	—	—	—	—	—	—	—	—	—	—	—	4.75	0.54	5.30	0.49	0.01	—	20.9
Elementary School	—	—	—	—	—	—	—	—	—	—	—	4.00	0.46	4.46	0.41	0.01	—	17.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	12.0	0.77	12.8	1.23	0.03	—	52.3
General Office Building	—	—	—	—	—	—	—	—	—	—	—	30.8	1.96	32.8	3.16	0.08	—	134
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.12	2.12	0.00	0.00	—	2.12
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.59	0.59	0.00	0.00	—	0.59
Total	—	—	—	—	—	—	—	—	—	—	—	542	40.2	582	55.5	1.32	—	2,363
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/T	—	—	—	—	—	—	—	—	—	—	—	84.1	5.80	89.9	8.62	0.20	—	366
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	27.0	1.86	28.9	2.77	0.07	—	118
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	379	26.1	405	38.9	0.92	—	1,651
Junior High School	—	—	—	—	—	—	—	—	—	—	—	4.75	0.54	5.30	0.49	0.01	—	20.9
Elementary School	—	—	—	—	—	—	—	—	—	—	—	4.00	0.46	4.46	0.41	0.01	—	17.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	12.0	0.77	12.8	1.23	0.03	—	52.3
General Office Building	—	—	—	—	—	—	—	—	—	—	—	30.8	1.96	32.8	3.16	0.08	—	134
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	2.12	2.12	0.00	0.00	—	2.12
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.59	0.59	0.00	0.00	—	0.59
Total	—	—	—	—	—	—	—	—	—	—	—	542	40.2	582	55.5	1.32	—	2,363
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	13.9	0.96	14.9	1.43	0.03	—	60.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	4.47	0.31	4.78	0.46	0.01	—	19.5
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	62.7	4.33	67.1	6.43	0.15	—	273
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.79	0.09	0.88	0.08	< 0.005	—	3.46

Element School	—	—	—	—	—	—	—	—	—	—	—	0.66	0.08	0.74	0.07	< 0.005	—	2.92
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.99	0.13	2.12	0.20	< 0.005	—	8.66
General Office Building	—	—	—	—	—	—	—	—	—	—	—	5.10	0.32	5.42	0.52	0.01	—	22.2
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.35	0.35	0.00	0.00	—	0.35
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.10	0.10	0.00	0.00	—	0.10
Total	—	—	—	—	—	—	—	—	—	—	—	89.7	6.66	96.3	9.19	0.22	—	391

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	288	0.00	288	28.8	0.00	—	1,007
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268

Element School	—	—	—	—	—	—	—	—	—	—	—	60.4	0.00	60.4	6.04	0.00	—	211
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.41	0.00	2.41	0.24	0.00	—	8.43
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	288	0.00	288	28.8	0.00	—	1,007
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	60.4	0.00	60.4	6.04	0.00	—	211
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.41	0.00	2.41	0.24	0.00	—	8.43

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	97.6	0.00	97.6	9.76	0.00	—	341
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	10.00	0.00	10.00	1.00	0.00	—	35.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.37	0.00	9.37	0.94	0.00	—	32.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	27.7	0.00	27.7	2.76	0.00	—	96.8
City Park	—	—	—	—	—	—	—	—	—	—	—	0.40	0.00	0.40	0.04	0.00	—	1.40
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	242	0.00	242	24.2	0.00	—	846

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	288	0.00	288	28.8	0.00	—	1,007
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	60.4	0.00	60.4	6.04	0.00	—	211
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.41	0.00	2.41	0.24	0.00	—	8.43
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	288	0.00	288	28.8	0.00	—	1,007
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	60.4	0.00	60.4	6.04	0.00	—	211
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.41	0.00	2.41	0.24	0.00	—	8.43
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	97.6	0.00	97.6	9.76	0.00	—	341
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	10.00	0.00	10.00	1.00	0.00	—	35.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.37	0.00	9.37	0.94	0.00	—	32.8

General Office Building	—	—	—	—	—	—	—	—	—	—	—	27.7	0.00	27.7	2.76	0.00	—	96.8
City Park	—	—	—	—	—	—	—	—	—	—	—	0.40	0.00	0.40	0.04	0.00	—	1.40
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	242	0.00	242	24.2	0.00	—	846

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.48	5.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.4	27.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.48	5.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.4	27.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.91	0.91

Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.54	4.54
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.47	6.47

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.48	5.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.4	27.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.48	5.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.4	27.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.91	0.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.54	4.54
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.47	6.47

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	37,961	37,961	37,961	13,855,688	193,101	193,101	193,101	70,481,896

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	37,961	37,961	37,961	13,855,688	193,101	193,101	193,101	70,481,896

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	650
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	496
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1767
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	650
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—

Wood Fireplaces	0
Gas Fireplaces	496
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1767
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
10483890.75	3,494,630	864,372	288,124	28,750

5.10.3. Landscape Equipment

Season	Unit	Value

Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,724,915	9.99	0.0000	0.0000	16,764,800
Apartments Low Rise	2,449,123	9.99	0.0000	0.0000	8,374,722
Single Family Housing	16,735,967	9.99	0.0000	0.0000	57,103,720
Junior High School	419,734	9.99	0.0000	0.0000	3,957,049
Elementary School	235,260	9.99	0.0000	0.0000	2,217,920
Strip Mall	871,207	9.99	0.0000	0.0000	862,560
General Office Building	6,976,501	9.99	0.0000	0.0000	9,623,084
City Park	0.00	9.99	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	9.99	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	0.00	9.99	0.0000	0.0000	16,764,800

Apartments Low Rise	0.00	9.99	0.0000	0.0000	8,374,722
Single Family Housing	< 0.005	9.99	0.0000	0.0000	57,103,720
Junior High School	419,734	9.99	0.0000	0.0000	3,957,049
Elementary School	235,260	9.99	0.0000	0.0000	2,217,920
Strip Mall	871,207	9.99	0.0000	0.0000	862,560
General Office Building	6,976,501	9.99	0.0000	0.0000	9,623,084
City Park	0.00	9.99	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	9.99	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	43,865,893	46,190,309
Apartments Low Rise	14,095,412	14,842,315
Single Family Housing	197,727,481	208,204,889
Junior High School	2,478,947	7,525,376
Elementary School	2,087,535	6,337,159
Strip Mall	6,270,946	5,158,358
General Office Building	16,069,298	13,218,294
City Park	0.00	47,937,535
Other Asphalt Surfaces	0.00	13,366,100

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	43,865,893	46,190,309
Apartments Low Rise	14,095,412	14,842,315

Single Family Housing	197,727,481	208,204,889
Junior High School	2,478,947	7,525,376
Elementary School	2,087,535	6,337,159
Strip Mall	6,270,946	5,158,358
General Office Building	16,069,298	13,218,294
City Park	0.00	47,937,535
Other Asphalt Surfaces	0.00	13,366,100

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	534	—
Apartments Low Rise	408	—
Single Family Housing	1,094	—
Junior High School	142	—
Elementary School	112	—
Strip Mall	105	—
General Office Building	310	—
City Park	4.47	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	534	—
Apartments Low Rise	408	—
Single Family Housing	1,094	—

Junior High School	142	—
Elementary School	112	—
Strip Mall	105	—
General Office Building	310	—
City Park	4.47	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A

Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7

Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948

Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—

Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Energy Use	—
Operations: Water and Waste Water	Accounts for Policy 9.36 (20% reduction to indoor residential water use), Policy 9.37 (30% reduction to indoor non-residential water consumption) 13% increase in outdoor due to non-revenue demand. All per WSA.
Operations: Road Dust	Paved road dust percentage updated per discussions with team

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 18 _ Fully Mit
Operational Year	2045
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	722	Dwelling Unit	84.0	765,320	0.00	—	1,834	—

Apartments Low Rise	551	Dwelling Unit	28.0	584,060	0.00	—	1,400	—
Single Family Housing	1,963	Dwelling Unit	685	3,827,850	22,992,338	—	4,986	—
Junior High School	779	Student	19.0	91,581	0.00	0.00	—	—
Elementary School	614	Student	16.0	51,331	0.00	0.00	—	—
Strip Mall	100	1000sqft	2.30	100,000	0.00	—	—	—
General Office Building	333	1000sqft	7.65	333,336	0.00	—	—	—
City Park	52.0	Acre	52.0	0.00	52.0	52.0	—	—
Other Asphalt Surfaces	11.0	Acre	11.0	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances
Energy	E-10-B	Establish Onsite Renewable Energy Systems: Solar Power

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	131	292	112	779	1.69	6.52	126	133	6.46	32.0	38.4	1,986	216,551	218,537	209	6.34	86.1	225,732
Mit.	131	292	112	779	1.69	6.52	126	133	6.46	32.0	38.4	1,986	216,551	218,537	209	6.34	86.1	225,732

% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	104	266	117	539	1.58	6.40	126	132	6.37	32.0	38.4	1,986	206,440	208,426	210	6.92	40.3	215,768
Mit.	104	266	117	539	1.58	6.40	126	132	6.37	32.0	38.4	1,986	206,440	208,426	210	6.92	40.3	215,768
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	110	274	77.9	614	1.37	3.43	125	129	3.38	31.8	35.2	1,986	161,027	163,013	208	6.60	59.4	170,249
Mit.	110	274	77.9	614	1.37	3.43	125	129	3.38	31.8	35.2	1,986	161,027	163,013	208	6.60	59.4	170,249
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	20.0	49.9	14.2	112	0.25	0.63	22.8	23.5	0.62	5.80	6.42	329	26,660	26,989	34.5	1.09	9.83	28,187
Mit.	20.0	49.9	14.2	112	0.25	0.63	22.8	23.5	0.62	5.80	6.42	329	26,660	26,989	34.5	1.09	9.83	28,187
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	101	96.8	36.4	536	1.21	0.47	126	127	0.44	32.0	32.4	—	122,937	122,937	4.90	4.88	47.0	124,561
Area	27.0	194	50.2	230	0.32	4.03	—	4.03	4.00	—	4.00	0.00	61,917	61,917	1.18	0.12	—	61,982

Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Water	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	131	292	112	779	1.69	6.52	126	133	6.46	32.0	38.4	1,986	216,551	218,537	209	6.34	86.1	225,732
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	95.2	90.5	43.6	505	1.12	0.47	126	127	0.44	32.0	32.4	—	113,419	113,419	5.78	5.46	1.22	115,193
Area	5.65	174	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Water	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	104	266	117	539	1.58	6.40	126	132	6.37	32.0	38.4	1,986	206,440	208,426	210	6.92	40.3	215,768
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	95.0	90.4	40.9	494	1.14	0.47	125	126	0.44	31.8	32.2	—	115,260	115,260	5.43	5.23	20.3	116,976
Area	11.8	182	11.8	108	0.07	0.94	—	0.94	0.92	—	0.92	0.00	14,070	14,070	0.27	0.03	—	14,085
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Water	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	110	274	77.9	614	1.37	3.43	125	129	3.38	31.8	35.2	1,986	161,027	163,013	208	6.60	59.4	170,249
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	17.3	16.5	7.46	90.1	0.21	0.09	22.8	22.9	0.08	5.80	5.88	—	19,083	19,083	0.90	0.87	3.36	19,367
Area	2.15	33.2	2.15	19.7	0.01	0.17	—	0.17	0.17	—	0.17	0.00	2,329	2,329	0.04	< 0.005	—	2,332
Energy	0.53	0.27	4.61	2.30	0.03	0.37	—	0.37	0.37	—	0.37	—	5,248	5,248	0.46	0.01	—	5,262
Water	—	—	—	—	—	—	—	—	—	—	—	87.1	0.00	87.1	8.93	0.21	—	374

Waste	—	—	—	—	—	—	—	—	—	—	—	242	0.00	242	24.2	0.00	—	846
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.47	6.47
Total	20.0	49.9	14.2	112	0.25	0.63	22.8	23.5	0.62	5.80	6.42	329	26,660	26,989	34.5	1.09	9.83	28,187

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	101	96.8	36.4	536	1.21	0.47	126	127	0.44	32.0	32.4	—	122,937	122,937	4.90	4.88	47.0	124,561
Area	27.0	194	50.2	230	0.32	4.03	—	4.03	4.00	—	4.00	0.00	61,917	61,917	1.18	0.12	—	61,982
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Water	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	131	292	112	779	1.69	6.52	126	133	6.46	32.0	38.4	1,986	216,551	218,537	209	6.34	86.1	225,732
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	95.2	90.5	43.6	505	1.12	0.47	126	127	0.44	32.0	32.4	—	113,419	113,419	5.78	5.46	1.22	115,193
Area	5.65	174	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Water	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	104	266	117	539	1.58	6.40	126	132	6.37	32.0	38.4	1,986	206,440	208,426	210	6.92	40.3	215,768
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	95.0	90.4	40.9	494	1.14	0.47	125	126	0.44	31.8	32.2	—	115,260	115,260	5.43	5.23	20.3	116,976
Area	11.8	182	11.8	108	0.07	0.94	—	0.94	0.92	—	0.92	0.00	14,070	14,070	0.27	0.03	—	14,085
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Water	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	110	274	77.9	614	1.37	3.43	125	129	3.38	31.8	35.2	1,986	161,027	163,013	208	6.60	59.4	170,249
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	17.3	16.5	7.46	90.1	0.21	0.09	22.8	22.9	0.08	5.80	5.88	—	19,083	19,083	0.90	0.87	3.36	19,367
Area	2.15	33.2	2.15	19.7	0.01	0.17	—	0.17	0.17	—	0.17	0.00	2,329	2,329	0.04	< 0.005	—	2,332
Energy	0.53	0.27	4.61	2.30	0.03	0.37	—	0.37	0.37	—	0.37	—	5,248	5,248	0.46	0.01	—	5,262
Water	—	—	—	—	—	—	—	—	—	—	—	87.1	0.00	87.1	8.93	0.21	—	374
Waste	—	—	—	—	—	—	—	—	—	—	—	242	0.00	242	24.2	0.00	—	846
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.47	6.47
Total	20.0	49.9	14.2	112	0.25	0.63	22.8	23.5	0.62	5.80	6.42	329	26,660	26,989	34.5	1.09	9.83	28,187

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.50	0.25	4.23	1.80	0.03	0.34	—	0.34	0.34	—	0.34	—	5,373	5,373	0.48	0.01	—	5,388
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.69	0.84	14.4	6.14	0.09	1.17	—	1.17	1.17	—	1.17	—	18,301	18,301	1.62	0.03	—	18,352
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713
Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/T	0.50	0.25	4.23	1.80	0.03	0.34	—	0.34	0.34	—	0.34	—	5,373	5,373	0.48	0.01	—	5,388
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.69	0.84	14.4	6.14	0.09	1.17	—	1.17	1.17	—	1.17	—	18,301	18,301	1.62	0.03	—	18,352
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713
Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.09	0.05	0.77	0.33	< 0.005	0.06	—	0.06	0.06	—	0.06	—	890	890	0.08	< 0.005	—	892
Apartments Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.31	0.15	2.63	1.12	0.02	0.21	—	0.21	0.21	—	0.21	—	3,030	3,030	0.27	0.01	—	3,038
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211

Element School	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	118	118	0.01	< 0.005	—	118
Strip Mall	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	45.8	45.8	< 0.005	< 0.005	—	45.9
General Office Building	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	511	511	0.05	< 0.005	—	512
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.53	0.27	4.61	2.30	0.03	0.37	—	0.37	0.37	—	0.37	—	5,248	5,248	0.46	0.01	—	5,262

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.50	0.25	4.23	1.80	0.03	0.34	—	0.34	0.34	—	0.34	—	5,373	5,373	0.48	0.01	—	5,388
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.69	0.84	14.4	6.14	0.09	1.17	—	1.17	1.17	—	1.17	—	18,301	18,301	1.62	0.03	—	18,352
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713

Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.50	0.25	4.23	1.80	0.03	0.34	—	0.34	0.34	—	0.34	—	5,373	5,373	0.48	0.01	—	5,388
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.69	0.84	14.4	6.14	0.09	1.17	—	1.17	1.17	—	1.17	—	18,301	18,301	1.62	0.03	—	18,352
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713
Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.09	0.05	0.77	0.33	< 0.005	0.06	—	0.06	0.06	—	0.06	—	890	890	0.08	< 0.005	—	892
Apartments Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.31	0.15	2.63	1.12	0.02	0.21	—	0.21	0.21	—	0.21	—	3,030	3,030	0.27	0.01	—	3,038
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211
Elementary School	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	118	118	0.01	< 0.005	—	118
Strip Mall	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	45.8	45.8	< 0.005	< 0.005	—	45.9
General Office Building	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	511	511	0.05	< 0.005	—	512
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.53	0.27	4.61	2.30	0.03	0.37	—	0.37	0.37	—	0.37	—	5,248	5,248	0.46	0.01	—	5,262

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.65	2.83	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Consumer Products	—	123	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	48.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	21.3	20.1	1.91	210	0.01	0.13	—	0.13	0.10	—	0.10	—	594	594	0.02	< 0.005	—	596
Total	27.0	194	50.2	230	0.32	4.03	—	4.03	4.00	—	4.00	0.00	61,917	61,917	1.18	0.12	—	61,982
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.65	2.83	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Consumer Products	—	123	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	48.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.65	174	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.23	0.12	1.98	0.84	0.01	0.16	—	0.16	0.16	—	0.16	0.00	2,281	2,281	0.04	< 0.005	—	2,283
Consumer Products	—	22.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	8.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	1.92	1.81	0.17	18.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.5	48.5	< 0.005	< 0.005	—	48.7
Total	2.15	33.2	2.15	19.7	0.01	0.17	—	0.17	0.17	—	0.17	0.00	2,329	2,329	0.04	< 0.005	—	2,332

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.65	2.83	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Consumer Products	—	123	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	48.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	21.3	20.1	1.91	210	0.01	0.13	—	0.13	0.10	—	0.10	—	594	594	0.02	< 0.005	—	596
Total	27.0	194	50.2	230	0.32	4.03	—	4.03	4.00	—	4.00	0.00	61,917	61,917	1.18	0.12	—	61,982
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.65	2.83	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Consumer Products	—	123	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	48.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.65	174	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.23	0.12	1.98	0.84	0.01	0.16	—	0.16	0.16	—	0.16	0.00	2,281	2,281	0.04	< 0.005	—	2,283
Consumer Products	—	22.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	8.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.92	1.81	0.17	18.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.5	48.5	< 0.005	< 0.005	—	48.7
Total	2.15	33.2	2.15	19.7	0.01	0.17	—	0.17	0.17	—	0.17	0.00	2,329	2,329	0.04	< 0.005	—	2,332

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	84.1	0.00	84.1	8.62	0.20	—	361
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	27.0	0.00	27.0	2.77	0.07	—	116
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	379	0.00	379	38.9	0.92	—	1,625

Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.33	0.00	3.33	0.34	0.01	—	14.3
Elementary School	—	—	—	—	—	—	—	—	—	—	—	2.80	0.00	2.80	0.29	0.01	—	12.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	8.41	0.00	8.41	0.86	0.02	—	36.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	21.6	0.00	21.6	2.21	0.05	—	92.5
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	84.1	0.00	84.1	8.62	0.20	—	361
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	27.0	0.00	27.0	2.77	0.07	—	116
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	379	0.00	379	38.9	0.92	—	1,625
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.33	0.00	3.33	0.34	0.01	—	14.3
Elementary School	—	—	—	—	—	—	—	—	—	—	—	2.80	0.00	2.80	0.29	0.01	—	12.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	8.41	0.00	8.41	0.86	0.02	—	36.1

General Office Building	—	—	—	—	—	—	—	—	—	—	—	21.6	0.00	21.6	2.21	0.05	—	92.5
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.43	0.03	—	59.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	4.47	0.00	4.47	0.46	0.01	—	19.2
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	62.7	0.00	62.7	6.43	0.15	—	269
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.55	0.00	0.55	0.06	< 0.005	—	2.36
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.46	0.00	0.46	0.05	< 0.005	—	1.99
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.39	0.00	1.39	0.14	< 0.005	—	5.97
General Office Building	—	—	—	—	—	—	—	—	—	—	—	3.57	0.00	3.57	0.37	0.01	—	15.3
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	87.1	0.00	87.1	8.93	0.21	—	374

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	84.1	0.00	84.1	8.62	0.20	—	361
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	27.0	0.00	27.0	2.77	0.07	—	116
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	379	0.00	379	38.9	0.92	—	1,625
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.33	0.00	3.33	0.34	0.01	—	14.3
Elementary School	—	—	—	—	—	—	—	—	—	—	—	2.80	0.00	2.80	0.29	0.01	—	12.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	8.41	0.00	8.41	0.86	0.02	—	36.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	21.6	0.00	21.6	2.21	0.05	—	92.5
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/T	—	—	—	—	—	—	—	—	—	—	—	84.1	0.00	84.1	8.62	0.20	—	361
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	27.0	0.00	27.0	2.77	0.07	—	116
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	379	0.00	379	38.9	0.92	—	1,625
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.33	0.00	3.33	0.34	0.01	—	14.3
Elementary School	—	—	—	—	—	—	—	—	—	—	—	2.80	0.00	2.80	0.29	0.01	—	12.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	8.41	0.00	8.41	0.86	0.02	—	36.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	21.6	0.00	21.6	2.21	0.05	—	92.5
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.43	0.03	—	59.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	4.47	0.00	4.47	0.46	0.01	—	19.2
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	62.7	0.00	62.7	6.43	0.15	—	269
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.55	0.00	0.55	0.06	< 0.005	—	2.36

Element School	—	—	—	—	—	—	—	—	—	—	—	0.46	0.00	0.46	0.05	< 0.005	—	1.99
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.39	0.00	1.39	0.14	< 0.005	—	5.97
General Office Building	—	—	—	—	—	—	—	—	—	—	—	3.57	0.00	3.57	0.37	0.01	—	15.3
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	87.1	0.00	87.1	8.93	0.21	—	374

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	288	0.00	288	28.8	0.00	—	1,007
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268

Element School	—	—	—	—	—	—	—	—	—	—	—	60.4	0.00	60.4	6.04	0.00	—	211
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.41	0.00	2.41	0.24	0.00	—	8.43
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	288	0.00	288	28.8	0.00	—	1,007
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	60.4	0.00	60.4	6.04	0.00	—	211
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.41	0.00	2.41	0.24	0.00	—	8.43

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	97.6	0.00	97.6	9.76	0.00	—	341
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	10.00	0.00	10.00	1.00	0.00	—	35.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.37	0.00	9.37	0.94	0.00	—	32.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	27.7	0.00	27.7	2.76	0.00	—	96.8
City Park	—	—	—	—	—	—	—	—	—	—	—	0.40	0.00	0.40	0.04	0.00	—	1.40
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	242	0.00	242	24.2	0.00	—	846

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	288	0.00	288	28.8	0.00	—	1,007
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	60.4	0.00	60.4	6.04	0.00	—	211
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.41	0.00	2.41	0.24	0.00	—	8.43
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	288	0.00	288	28.8	0.00	—	1,007
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	60.4	0.00	60.4	6.04	0.00	—	211
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.41	0.00	2.41	0.24	0.00	—	8.43
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	97.6	0.00	97.6	9.76	0.00	—	341
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	10.00	0.00	10.00	1.00	0.00	—	35.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.37	0.00	9.37	0.94	0.00	—	32.8

General Office Building	—	—	—	—	—	—	—	—	—	—	—	27.7	0.00	27.7	2.76	0.00	—	96.8
City Park	—	—	—	—	—	—	—	—	—	—	—	0.40	0.00	0.40	0.04	0.00	—	1.40
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	242	0.00	242	24.2	0.00	—	846

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.48	5.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.4	27.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.48	5.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.4	27.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.91	0.91

Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.54	4.54
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.47	6.47

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.48	5.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.4	27.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.48	5.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.4	27.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.91	0.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.54	4.54
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.47	6.47

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	37,961	37,961	37,961	13,855,688	178,232	178,232	178,232	65,054,627

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	37,961	37,961	37,961	13,855,688	178,232	178,232	178,232	65,054,627

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	650
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	496
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1767
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	650
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—

Wood Fireplaces	0
Gas Fireplaces	496
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1767
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
10483890.75	3,494,630	864,372	288,124	28,750

5.10.3. Landscape Equipment

Season	Unit	Value

Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,724,915	0.00	0.0000	0.0000	16,764,800
Apartments Low Rise	2,449,123	0.00	0.0000	0.0000	8,374,722
Single Family Housing	16,735,967	0.00	0.0000	0.0000	57,103,720
Junior High School	419,734	0.00	0.0000	0.0000	3,957,049
Elementary School	235,260	0.00	0.0000	0.0000	2,217,920
Strip Mall	871,207	0.00	0.0000	0.0000	862,560
General Office Building	6,976,501	0.00	0.0000	0.0000	9,623,084
City Park	0.00	0.00	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	0.00	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	0.00	0.00	0.0000	0.0000	16,764,800

Apartments Low Rise	0.00	0.00	0.0000	0.0000	8,374,722
Single Family Housing	4,169,950	0.00	0.0000	0.0000	57,103,720
Junior High School	419,734	0.00	0.0000	0.0000	3,957,049
Elementary School	235,260	0.00	0.0000	0.0000	2,217,920
Strip Mall	871,207	0.00	0.0000	0.0000	862,560
General Office Building	6,976,501	0.00	0.0000	0.0000	9,623,084
City Park	0.00	0.00	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	0.00	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	43,865,893	46,190,309
Apartments Low Rise	14,095,412	14,842,315
Single Family Housing	197,727,481	208,204,889
Junior High School	1,735,263	7,525,376
Elementary School	1,461,274	6,337,159
Strip Mall	4,389,662	5,158,358
General Office Building	11,248,509	13,218,294
City Park	0.00	47,937,535
Other Asphalt Surfaces	0.00	13,366,100

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	43,865,893	46,190,309
Apartments Low Rise	14,095,412	14,842,315

Single Family Housing	197,727,481	208,204,889
Junior High School	1,735,263	7,525,376
Elementary School	1,461,274	6,337,159
Strip Mall	4,389,662	5,158,358
General Office Building	11,248,509	13,218,294
City Park	0.00	47,937,535
Other Asphalt Surfaces	0.00	13,366,100

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	534	—
Apartments Low Rise	408	—
Single Family Housing	1,094	—
Junior High School	142	—
Elementary School	112	—
Strip Mall	105	—
General Office Building	310	—
City Park	4.47	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	534	—
Apartments Low Rise	408	—
Single Family Housing	1,094	—

Junior High School	142	—
Elementary School	112	—
Strip Mall	105	—
General Office Building	310	—
City Park	4.47	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A

Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7

Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948

Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—

Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Energy Use	—
Operations: Water and Waste Water	Accounts for Policy 9.36 (20% reduction to indoor residential water use), Policy 9.37 (30% reduction to indoor non-residential water consumption) 13% increase in outdoor due to non-revenue demand. All per WSA.
Operations: Road Dust	Paved road dust percentage updated per discussions with team

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 18 _ Partial Mit
Operational Year	2045
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	722	Dwelling Unit	84.0	765,320	0.00	—	1,834	—

Apartments Low Rise	551	Dwelling Unit	28.0	584,060	0.00	—	1,400	—
Single Family Housing	1,963	Dwelling Unit	685	3,827,850	22,992,338	—	4,986	—
Junior High School	779	Student	19.0	91,581	0.00	0.00	—	—
Elementary School	614	Student	16.0	51,331	0.00	0.00	—	—
Strip Mall	100	1000sqft	2.30	100,000	0.00	—	—	—
General Office Building	333	1000sqft	7.65	333,336	0.00	—	—	—
City Park	52.0	Acre	52.0	0.00	52.0	52.0	—	—
Other Asphalt Surfaces	11.0	Acre	11.0	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	132	293	112	792	1.73	6.54	130	137	6.47	33.1	39.5	1,986	220,480	222,466	209	6.44	87.6	229,693
Mit.	132	293	112	792	1.73	6.54	130	137	6.47	33.1	39.5	1,986	220,480	222,466	209	6.44	87.6	229,693
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	104	266	118	549	1.62	6.41	130	137	6.38	33.1	39.4	1,986	210,046	212,032	210	7.02	40.3	219,408
Mit.	104	266	118	549	1.62	6.41	130	137	6.38	33.1	39.4	1,986	210,046	212,032	210	7.02	40.3	219,408
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	110	274	78.6	625	1.40	3.44	129	133	3.40	32.8	36.2	1,986	164,697	166,683	208	6.70	60.0	173,952
Mit.	110	274	78.6	625	1.40	3.44	129	133	3.40	32.8	36.2	1,986	164,697	166,683	208	6.70	60.0	173,952
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	20.1	50.0	14.3	114	0.26	0.63	23.6	24.2	0.62	5.99	6.61	329	27,267	27,596	34.5	1.11	9.94	28,800
Mit.	20.1	50.0	14.3	114	0.26	0.63	23.6	24.2	0.62	5.99	6.61	329	27,267	27,596	34.5	1.11	9.94	28,800
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	102	97.3	37.0	550	1.25	0.48	130	131	0.45	33.1	33.5	—	126,866	126,866	4.97	4.98	48.6	128,522
Area	27.0	194	50.2	230	0.32	4.03	—	4.03	4.00	—	4.00	0.00	61,917	61,917	1.18	0.12	—	61,982
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Water	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256

Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	132	293	112	792	1.73	6.54	130	137	6.47	33.1	39.5	1,986	220,480	222,466	209	6.44	87.6	229,693
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	95.7	90.9	44.4	516	1.15	0.48	130	131	0.45	33.1	33.5	—	117,026	117,026	5.85	5.57	1.26	118,832
Area	5.65	174	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Water	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	104	266	118	549	1.62	6.41	130	137	6.38	33.1	39.4	1,986	210,046	212,032	210	7.02	40.3	219,408
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	95.5	90.8	41.6	504	1.17	0.48	129	130	0.45	32.8	33.3	—	118,930	118,930	5.50	5.34	21.0	120,679
Area	11.8	182	11.8	108	0.07	0.94	—	0.94	0.92	—	0.92	0.00	14,070	14,070	0.27	0.03	—	14,085
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Water	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	110	274	78.6	625	1.40	3.44	129	133	3.40	32.8	36.2	1,986	164,697	166,683	208	6.70	60.0	173,952
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	17.4	16.6	7.59	92.0	0.21	0.09	23.6	23.7	0.08	5.99	6.08	—	19,690	19,690	0.91	0.88	3.47	19,980
Area	2.15	33.2	2.15	19.7	0.01	0.17	—	0.17	0.17	—	0.17	0.00	2,329	2,329	0.04	< 0.005	—	2,332
Energy	0.53	0.27	4.61	2.30	0.03	0.37	—	0.37	0.37	—	0.37	—	5,248	5,248	0.46	0.01	—	5,262
Water	—	—	—	—	—	—	—	—	—	—	—	87.1	0.00	87.1	8.93	0.21	—	374
Waste	—	—	—	—	—	—	—	—	—	—	—	242	0.00	242	24.2	0.00	—	846
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.47	6.47

Total	20.1	50.0	14.3	114	0.26	0.63	23.6	24.2	0.62	5.99	6.61	329	27,267	27,596	34.5	1.11	9.94	28,800

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	102	97.3	37.0	550	1.25	0.48	130	131	0.45	33.1	33.5	—	126,866	126,866	4.97	4.98	48.6	128,522
Area	27.0	194	50.2	230	0.32	4.03	—	4.03	4.00	—	4.00	0.00	61,917	61,917	1.18	0.12	—	61,982
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Water	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	132	293	112	792	1.73	6.54	130	137	6.47	33.1	39.5	1,986	220,480	222,466	209	6.44	87.6	229,693
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	95.7	90.9	44.4	516	1.15	0.48	130	131	0.45	33.1	33.5	—	117,026	117,026	5.85	5.57	1.26	118,832
Area	5.65	174	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Water	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	104	266	118	549	1.62	6.41	130	137	6.38	33.1	39.4	1,986	210,046	212,032	210	7.02	40.3	219,408
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	95.5	90.8	41.6	504	1.17	0.48	129	130	0.45	32.8	33.3	—	118,930	118,930	5.50	5.34	21.0	120,679
Area	11.8	182	11.8	108	0.07	0.94	—	0.94	0.92	—	0.92	0.00	14,070	14,070	0.27	0.03	—	14,085

Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Water	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	110	274	78.6	625	1.40	3.44	129	133	3.40	32.8	36.2	1,986	164,697	166,683	208	6.70	60.0	173,952
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	17.4	16.6	7.59	92.0	0.21	0.09	23.6	23.7	0.08	5.99	6.08	—	19,690	19,690	0.91	0.88	3.47	19,980
Area	2.15	33.2	2.15	19.7	0.01	0.17	—	0.17	0.17	—	0.17	0.00	2,329	2,329	0.04	< 0.005	—	2,332
Energy	0.53	0.27	4.61	2.30	0.03	0.37	—	0.37	0.37	—	0.37	—	5,248	5,248	0.46	0.01	—	5,262
Water	—	—	—	—	—	—	—	—	—	—	—	87.1	0.00	87.1	8.93	0.21	—	374
Waste	—	—	—	—	—	—	—	—	—	—	—	242	0.00	242	24.2	0.00	—	846
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.47	6.47
Total	20.1	50.0	14.3	114	0.26	0.63	23.6	24.2	0.62	5.99	6.61	329	27,267	27,596	34.5	1.11	9.94	28,800

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	0.50	0.25	4.23	1.80	0.03	0.34	—	0.34	0.34	—	0.34	—	5,373	5,373	0.48	0.01	—	5,388
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.69	0.84	14.4	6.14	0.09	1.17	—	1.17	1.17	—	1.17	—	18,301	18,301	1.62	0.03	—	18,352
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713
Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.50	0.25	4.23	1.80	0.03	0.34	—	0.34	0.34	—	0.34	—	5,373	5,373	0.48	0.01	—	5,388
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.69	0.84	14.4	6.14	0.09	1.17	—	1.17	1.17	—	1.17	—	18,301	18,301	1.62	0.03	—	18,352

Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713
Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.09	0.05	0.77	0.33	< 0.005	0.06	—	0.06	0.06	—	0.06	—	890	890	0.08	< 0.005	—	892
Apartments Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.31	0.15	2.63	1.12	0.02	0.21	—	0.21	0.21	—	0.21	—	3,030	3,030	0.27	0.01	—	3,038
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211
Elementary School	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	118	118	0.01	< 0.005	—	118
Strip Mall	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	45.8	45.8	< 0.005	< 0.005	—	45.9
General Office Building	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	511	511	0.05	< 0.005	—	512

City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.53	0.27	4.61	2.30	0.03	0.37	—	0.37	0.37	—	0.37	—	5,248	5,248	0.46	0.01	—	5,262

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.50	0.25	4.23	1.80	0.03	0.34	—	0.34	0.34	—	0.34	—	5,373	5,373	0.48	0.01	—	5,388
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.69	0.84	14.4	6.14	0.09	1.17	—	1.17	1.17	—	1.17	—	18,301	18,301	1.62	0.03	—	18,352
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713
Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.50	0.25	4.23	1.80	0.03	0.34	—	0.34	0.34	—	0.34	—	5,373	5,373	0.48	0.01	—	5,388
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.69	0.84	14.4	6.14	0.09	1.17	—	1.17	1.17	—	1.17	—	18,301	18,301	1.62	0.03	—	18,352
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713
Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.09	0.05	0.77	0.33	< 0.005	0.06	—	0.06	0.06	—	0.06	—	890	890	0.08	< 0.005	—	892

Apartment Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.31	0.15	2.63	1.12	0.02	0.21	—	0.21	0.21	—	0.21	—	3,030	3,030	0.27	0.01	—	3,038
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211
Elementary School	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	118	118	0.01	< 0.005	—	118
Strip Mall	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	45.8	45.8	< 0.005	< 0.005	—	45.9
General Office Building	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	511	511	0.05	< 0.005	—	512
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.53	0.27	4.61	2.30	0.03	0.37	—	0.37	0.37	—	0.37	—	5,248	5,248	0.46	0.01	—	5,262

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.65	2.83	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Consumer Products	—	123	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	48.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	21.3	20.1	1.91	210	0.01	0.13	—	0.13	0.10	—	0.10	—	594	594	0.02	< 0.005	—	596
Total	27.0	194	50.2	230	0.32	4.03	—	4.03	4.00	—	4.00	0.00	61,917	61,917	1.18	0.12	—	61,982
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.65	2.83	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Consumer Products	—	123	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	48.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.65	174	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.23	0.12	1.98	0.84	0.01	0.16	—	0.16	0.16	—	0.16	0.00	2,281	2,281	0.04	< 0.005	—	2,283
Consumer Products	—	22.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	8.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.92	1.81	0.17	18.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.5	48.5	< 0.005	< 0.005	—	48.7
Total	2.15	33.2	2.15	19.7	0.01	0.17	—	0.17	0.17	—	0.17	0.00	2,329	2,329	0.04	< 0.005	—	2,332

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.65	2.83	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Consumer Products	—	123	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	48.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	21.3	20.1	1.91	210	0.01	0.13	—	0.13	0.10	—	0.10	—	594	594	0.02	< 0.005	—	596
Total	27.0	194	50.2	230	0.32	4.03	—	4.03	4.00	—	4.00	0.00	61,917	61,917	1.18	0.12	—	61,982
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.65	2.83	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Consumer Products	—	123	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	48.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.65	174	48.3	20.6	0.31	3.91	—	3.91	3.91	—	3.91	0.00	61,323	61,323	1.15	0.12	—	61,386
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.23	0.12	1.98	0.84	0.01	0.16	—	0.16	0.16	—	0.16	0.00	2,281	2,281	0.04	< 0.005	—	2,283
Consumer Products	—	22.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	8.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.92	1.81	0.17	18.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.5	48.5	< 0.005	< 0.005	—	48.7
Total	2.15	33.2	2.15	19.7	0.01	0.17	—	0.17	0.17	—	0.17	0.00	2,329	2,329	0.04	< 0.005	—	2,332

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	84.1	0.00	84.1	8.62	0.20	—	361
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	27.0	0.00	27.0	2.77	0.07	—	116
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	379	0.00	379	38.9	0.92	—	1,625
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.33	0.00	3.33	0.34	0.01	—	14.3
Elementary School	—	—	—	—	—	—	—	—	—	—	—	2.80	0.00	2.80	0.29	0.01	—	12.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	8.41	0.00	8.41	0.86	0.02	—	36.1

General Office Building	—	—	—	—	—	—	—	—	—	—	—	21.6	0.00	21.6	2.21	0.05	—	92.5
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	84.1	0.00	84.1	8.62	0.20	—	361
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	27.0	0.00	27.0	2.77	0.07	—	116
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	379	0.00	379	38.9	0.92	—	1,625
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.33	0.00	3.33	0.34	0.01	—	14.3
Elementary School	—	—	—	—	—	—	—	—	—	—	—	2.80	0.00	2.80	0.29	0.01	—	12.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	8.41	0.00	8.41	0.86	0.02	—	36.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	21.6	0.00	21.6	2.21	0.05	—	92.5
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.43	0.03	—	59.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	4.47	0.00	4.47	0.46	0.01	—	19.2
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	62.7	0.00	62.7	6.43	0.15	—	269
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.55	0.00	0.55	0.06	< 0.005	—	2.36
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.46	0.00	0.46	0.05	< 0.005	—	1.99
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.39	0.00	1.39	0.14	< 0.005	—	5.97
General Office Building	—	—	—	—	—	—	—	—	—	—	—	3.57	0.00	3.57	0.37	0.01	—	15.3
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	87.1	0.00	87.1	8.93	0.21	—	374

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhous	—	—	—	—	—	—	—	—	—	—	—	84.1	0.00	84.1	8.62	0.20	—	361
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	27.0	0.00	27.0	2.77	0.07	—	116
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	379	0.00	379	38.9	0.92	—	1,625
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.33	0.00	3.33	0.34	0.01	—	14.3
Elementary School	—	—	—	—	—	—	—	—	—	—	—	2.80	0.00	2.80	0.29	0.01	—	12.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	8.41	0.00	8.41	0.86	0.02	—	36.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	21.6	0.00	21.6	2.21	0.05	—	92.5
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	84.1	0.00	84.1	8.62	0.20	—	361
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	27.0	0.00	27.0	2.77	0.07	—	116
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	379	0.00	379	38.9	0.92	—	1,625

Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.33	0.00	3.33	0.34	0.01	—	14.3
Elementary School	—	—	—	—	—	—	—	—	—	—	—	2.80	0.00	2.80	0.29	0.01	—	12.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	8.41	0.00	8.41	0.86	0.02	—	36.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	21.6	0.00	21.6	2.21	0.05	—	92.5
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	526	0.00	526	53.9	1.28	—	2,256
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.43	0.03	—	59.7
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	4.47	0.00	4.47	0.46	0.01	—	19.2
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	62.7	0.00	62.7	6.43	0.15	—	269
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.55	0.00	0.55	0.06	< 0.005	—	2.36
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.46	0.00	0.46	0.05	< 0.005	—	1.99
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.39	0.00	1.39	0.14	< 0.005	—	5.97
General Office Building	—	—	—	—	—	—	—	—	—	—	—	3.57	0.00	3.57	0.37	0.01	—	15.3

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	87.1	0.00	87.1	8.93	0.21	—	374

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	288	0.00	288	28.8	0.00	—	1,007
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	60.4	0.00	60.4	6.04	0.00	—	211
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585

City Park	—	—	—	—	—	—	—	—	—	—	—	2.41	0.00	2.41	0.24	0.00	—	8.43
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	288	0.00	288	28.8	0.00	—	1,007
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	60.4	0.00	60.4	6.04	0.00	—	211
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.41	0.00	2.41	0.24	0.00	—	8.43
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	97.6	0.00	97.6	9.76	0.00	—	341
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	10.00	0.00	10.00	1.00	0.00	—	35.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.37	0.00	9.37	0.94	0.00	—	32.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	27.7	0.00	27.7	2.76	0.00	—	96.8
City Park	—	—	—	—	—	—	—	—	—	—	—	0.40	0.00	0.40	0.04	0.00	—	1.40
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	242	0.00	242	24.2	0.00	—	846

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	288	0.00	288	28.8	0.00	—	1,007
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	60.4	0.00	60.4	6.04	0.00	—	211
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.41	0.00	2.41	0.24	0.00	—	8.43
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	288	0.00	288	28.8	0.00	—	1,007
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063

Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	60.4	0.00	60.4	6.04	0.00	—	211
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.41	0.00	2.41	0.24	0.00	—	8.43
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	97.6	0.00	97.6	9.76	0.00	—	341
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	10.00	0.00	10.00	1.00	0.00	—	35.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.37	0.00	9.37	0.94	0.00	—	32.8
General Office Building	—	—	—	—	—	—	—	—	—	—	—	27.7	0.00	27.7	2.76	0.00	—	96.8

City Park	—	—	—	—	—	—	—	—	—	—	—	0.40	0.00	0.40	0.04	0.00	—	1.40
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	242	0.00	242	24.2	0.00	—	846

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.48	5.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.4	27.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81

City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.48	5.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.4	27.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.91	0.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.54	4.54
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.47	6.47

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.48	5.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.4	27.4

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.48	5.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.4	27.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.91	0.91
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.54	4.54
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.47	6.47

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	37,961	37,961	37,961	13,855,688	184,187	184,187	184,187	67,228,178

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	37,961	37,961	37,961	13,855,688	184,187	184,187	184,187	67,228,178

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	650
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	496
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1767

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	650
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	496
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	6
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	1767
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	22
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
10483890.75	3,494,630	864,372	288,124	28,750

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00

Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,724,915	0.00	0.0000	0.0000	16,764,800
Apartments Low Rise	2,449,123	0.00	0.0000	0.0000	8,374,722
Single Family Housing	16,735,967	0.00	0.0000	0.0000	57,103,720
Junior High School	419,734	0.00	0.0000	0.0000	3,957,049
Elementary School	235,260	0.00	0.0000	0.0000	2,217,920
Strip Mall	871,207	0.00	0.0000	0.0000	862,560
General Office Building	6,976,501	0.00	0.0000	0.0000	9,623,084
City Park	0.00	0.00	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	0.00	0.0000	0.0000	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,721,357	0.00	0.0000	0.0000	16,764,800
Apartments Low Rise	2,447,762	0.00	0.0000	0.0000	8,374,722
Single Family Housing	16,724,668	0.00	0.0000	0.0000	57,103,720
Junior High School	419,734	0.00	0.0000	0.0000	3,957,049
Elementary School	235,260	0.00	0.0000	0.0000	2,217,920
Strip Mall	871,207	0.00	0.0000	0.0000	862,560
General Office Building	6,976,501	0.00	0.0000	0.0000	9,623,084

City Park	0.00	0.00	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	0.00	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	43,865,893	46,190,309
Apartments Low Rise	14,095,412	14,842,315
Single Family Housing	197,727,481	208,204,889
Junior High School	1,735,263	7,525,376
Elementary School	1,461,274	6,337,159
Strip Mall	4,389,662	5,158,358
General Office Building	11,248,509	13,218,294
City Park	0.00	47,937,535
Other Asphalt Surfaces	0.00	13,366,100

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	43,865,893	46,190,309
Apartments Low Rise	14,095,412	14,842,315
Single Family Housing	197,727,481	208,204,889
Junior High School	1,735,263	7,525,376
Elementary School	1,461,274	6,337,159
Strip Mall	4,389,662	5,158,358
General Office Building	11,248,509	13,218,294
City Park	0.00	47,937,535

Other Asphalt Surfaces	0.00	13,366,100

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	534	—
Apartments Low Rise	408	—
Single Family Housing	1,094	—
Junior High School	142	—
Elementary School	112	—
Strip Mall	105	—
General Office Building	310	—
City Park	4.47	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	534	—
Apartments Low Rise	408	—
Single Family Housing	1,094	—
Junior High School	142	—
Elementary School	112	—
Strip Mall	105	—
General Office Building	310	—
City Park	4.47	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9

AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—

Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8

Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	Policy 9.51 forbids Woodstoves and Fireplaces; number of wood stoves and fireplaces replaced with gas stoves
Operations: Energy Use	—
Operations: Water and Waste Water	Accounts for Policy 9.36 (20% reduction to indoor residential water use), Policy 9.37 (30% reduction to indoor non-residential water consumption) 13% increase in outdoor due to non-revenue demand. All per WSA.
Operations: Road Dust	Paved road dust percentage updated per discussions with team

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	MV OP 18 _ unmitigated
Operational Year	2045
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.6478356511002, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Condo/Townhouse	722	Dwelling Unit	84.0	765,320	0.00	—	1,834	—

Apartments Low Rise	551	Dwelling Unit	28.0	584,060	0.00	—	1,400	—
Single Family Housing	1,963	Dwelling Unit	685	3,827,850	22,992,338	—	4,986	—
Junior High School	779	Student	19.0	91,581	0.00	0.00	—	—
Elementary School	614	Student	16.0	51,331	0.00	0.00	—	—
Strip Mall	100	1000sqft	2.30	100,000	0.00	—	—	—
General Office Building	333	1000sqft	7.65	333,336	0.00	—	—	—
City Park	52.0	Acre	52.0	0.00	52.0	52.0	—	—
Other Asphalt Surfaces	11.0	Acre	11.0	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5,161	5,241	161	6,885	12.5	845	130	975	841	33.1	874	91,662	196,632	288,294	271	12.3	87.6	298,815
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5,133	5,214	166	6,641	12.4	845	130	975	841	33.1	874	91,662	186,198	277,860	272	12.9	40.3	288,530

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1,240	1,386	89.5	1,993	3.82	192	129	321	191	32.8	224	21,982	159,340	181,322	207	7.66	60.0	188,837
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	226	253	16.3	364	0.70	35.0	23.6	58.6	34.8	5.99	40.8	3,639	26,380	30,020	34.3	1.27	9.94	31,264

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	102	97.3	37.0	550	1.25	0.48	130	131	0.45	33.1	33.5	—	126,866	126,866	4.97	4.98	48.6	128,522
Area	5,056	5,142	98.6	6,323	11.1	842	—	842	838	—	838	89,869	38,069	127,939	82.9	6.45	—	131,935
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Water	—	—	—	—	—	—	—	—	—	—	—	333	0.00	333	34.1	0.81	—	1,426
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	5,161	5,241	161	6,885	12.5	845	130	975	841	33.1	874	91,662	196,632	288,294	271	12.3	87.6	298,815
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	95.7	90.9	44.4	516	1.15	0.48	130	131	0.45	33.1	33.5	—	117,026	117,026	5.85	5.57	1.26	118,832
Area	5,035	5,122	96.7	6,113	11.1	842	—	842	838	—	838	89,869	37,475	127,345	82.9	6.45	—	131,339
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Water	—	—	—	—	—	—	—	—	—	—	—	333	0.00	333	34.1	0.81	—	1,426
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1

Total	5,133	5,214	166	6,641	12.4	845	130	975	841	33.1	874	91,662	186,198	277,860	272	12.9	40.3	288,530
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	95.5	90.8	41.6	504	1.17	0.48	129	130	0.45	32.8	33.3	—	118,930	118,930	5.50	5.34	21.0	120,679
Area	1,142	1,293	22.7	1,477	2.49	189	—	189	188	—	188	20,190	8,712	28,902	18.6	1.45	—	29,800
Energy	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Water	—	—	—	—	—	—	—	—	—	—	—	333	0.00	333	34.1	0.81	—	1,426
Waste	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Total	1,240	1,386	89.5	1,993	3.82	192	129	321	191	32.8	224	21,982	159,340	181,322	207	7.66	60.0	188,837
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	17.4	16.6	7.59	92.0	0.21	0.09	23.6	23.7	0.08	5.99	6.08	—	19,690	19,690	0.91	0.88	3.47	19,980
Area	208	236	4.14	270	0.45	34.5	—	34.5	34.4	—	34.4	3,343	1,442	4,785	3.09	0.24	—	4,934
Energy	0.53	0.27	4.61	2.30	0.03	0.37	—	0.37	0.37	—	0.37	—	5,248	5,248	0.46	0.01	—	5,262
Water	—	—	—	—	—	—	—	—	—	—	—	55.1	0.00	55.1	5.65	0.13	—	236
Waste	—	—	—	—	—	—	—	—	—	—	—	242	0.00	242	24.2	0.00	—	846
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.47	6.47
Total	226	253	16.3	364	0.70	35.0	23.6	58.6	34.8	5.99	40.8	3,639	26,380	30,020	34.3	1.27	9.94	31,264

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.50	0.25	4.23	1.80	0.03	0.34	—	0.34	0.34	—	0.34	—	5,373	5,373	0.48	0.01	—	5,388
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.69	0.84	14.4	6.14	0.09	1.17	—	1.17	1.17	—	1.17	—	18,301	18,301	1.62	0.03	—	18,352

Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713
Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277
General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.50	0.25	4.23	1.80	0.03	0.34	—	0.34	0.34	—	0.34	—	5,373	5,373	0.48	0.01	—	5,388
Apartments Low Rise	0.25	0.12	2.11	0.90	0.01	0.17	—	0.17	0.17	—	0.17	—	2,684	2,684	0.24	0.01	—	2,691
Single Family Housing	1.69	0.84	14.4	6.14	0.09	1.17	—	1.17	1.17	—	1.17	—	18,301	18,301	1.62	0.03	—	18,352
Junior High School	0.12	0.06	1.06	0.89	0.01	0.08	—	0.08	0.08	—	0.08	—	1,268	1,268	0.11	< 0.005	—	1,272
Elementary School	0.07	0.03	0.60	0.50	< 0.005	0.05	—	0.05	0.05	—	0.05	—	711	711	0.06	< 0.005	—	713
Strip Mall	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	276	276	0.02	< 0.005	—	277

General Office Building	0.28	0.14	2.58	2.17	0.02	0.20	—	0.20	0.20	—	0.20	—	3,084	3,084	0.27	0.01	—	3,093
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.92	1.46	25.2	12.6	0.16	2.02	—	2.02	2.02	—	2.02	—	31,697	31,697	2.81	0.06	—	31,785
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	0.09	0.05	0.77	0.33	< 0.005	0.06	—	0.06	0.06	—	0.06	—	890	890	0.08	< 0.005	—	892
Apartments Low Rise	0.05	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	444	444	0.04	< 0.005	—	446
Single Family Housing	0.31	0.15	2.63	1.12	0.02	0.21	—	0.21	0.21	—	0.21	—	3,030	3,030	0.27	0.01	—	3,038
Junior High School	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	210	210	0.02	< 0.005	—	211
Elementary School	0.01	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	118	118	0.01	< 0.005	—	118
Strip Mall	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	45.8	45.8	< 0.005	< 0.005	—	45.9
General Office Building	0.05	0.03	0.47	0.40	< 0.005	0.04	—	0.04	0.04	—	0.04	—	511	511	0.05	< 0.005	—	512
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.53	0.27	4.61	2.30	0.03	0.37	—	0.37	0.37	—	0.37	—	5,248	5,248	0.46	0.01	—	5,262

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5,035	4,951	96.7	6,113	11.1	842	—	842	838	—	838	89,869	37,475	127,345	82.9	6.45	—	131,339
Consumer Products	—	123	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	48.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	21.3	20.1	1.91	210	0.01	0.13	—	0.13	0.10	—	0.10	—	594	594	0.02	< 0.005	—	596
Total	5,056	5,142	98.6	6,323	11.1	842	—	842	838	—	838	89,869	38,069	127,939	82.9	6.45	—	131,935
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5,035	4,951	96.7	6,113	11.1	842	—	842	838	—	838	89,869	37,475	127,345	82.9	6.45	—	131,339
Consumer Products	—	123	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	48.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5,035	5,122	96.7	6,113	11.1	842	—	842	838	—	838	89,869	37,475	127,345	82.9	6.45	—	131,339
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	206	203	3.97	251	0.45	34.5	—	34.5	34.4	—	34.4	3,343	1,394	4,737	3.08	0.24	—	4,885

Consum Products	—	22.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	8.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.92	1.81	0.17	18.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.5	48.5	< 0.005	< 0.005	—	48.7
Total	208	236	4.14	270	0.45	34.5	—	34.5	34.4	—	34.4	3,343	1,442	4,785	3.09	0.24	—	4,934

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	44.3	0.00	44.3	4.54	0.11	—	190
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	0.00	33.8	3.46	0.08	—	145
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	120	0.00	120	12.3	0.29	—	516
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.00	3.62	0.37	0.01	—	15.5
Elementary School	—	—	—	—	—	—	—	—	—	—	—	2.85	0.00	2.85	0.29	0.01	—	12.2

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	14.2	0.00	14.2	1.46	0.03	—	60.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	114	0.00	114	11.6	0.28	—	487
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	333	0.00	333	34.1	0.81	—	1,426
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	44.3	0.00	44.3	4.54	0.11	—	190
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	33.8	0.00	33.8	3.46	0.08	—	145
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	120	0.00	120	12.3	0.29	—	516
Junior High School	—	—	—	—	—	—	—	—	—	—	—	3.62	0.00	3.62	0.37	0.01	—	15.5
Elementary School	—	—	—	—	—	—	—	—	—	—	—	2.85	0.00	2.85	0.29	0.01	—	12.2
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	14.2	0.00	14.2	1.46	0.03	—	60.9
General Office Building	—	—	—	—	—	—	—	—	—	—	—	114	0.00	114	11.6	0.28	—	487
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	333	0.00	333	34.1	0.81	—	1,426
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	7.33	0.00	7.33	0.75	0.02	—	31.4
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	5.59	0.00	5.59	0.57	0.01	—	24.0
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	19.9	0.00	19.9	2.04	0.05	—	85.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	0.60	0.00	0.60	0.06	< 0.005	—	2.57
Elementary School	—	—	—	—	—	—	—	—	—	—	—	0.47	0.00	0.47	0.05	< 0.005	—	2.03
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	2.35	0.00	2.35	0.24	0.01	—	10.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	18.8	0.00	18.8	1.93	0.05	—	80.6
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	55.1	0.00	55.1	5.65	0.13	—	236

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	288	0.00	288	28.8	0.00	—	1,007
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	60.4	0.00	60.4	6.04	0.00	—	211
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.41	0.00	2.41	0.24	0.00	—	8.43
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	288	0.00	288	28.8	0.00	—	1,007
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	220	0.00	220	22.0	0.00	—	768

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	590	0.00	590	58.9	0.00	—	2,063
Junior High School	—	—	—	—	—	—	—	—	—	—	—	76.6	0.00	76.6	7.66	0.00	—	268
Elementary School	—	—	—	—	—	—	—	—	—	—	—	60.4	0.00	60.4	6.04	0.00	—	211
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	56.6	0.00	56.6	5.66	0.00	—	198
General Office Building	—	—	—	—	—	—	—	—	—	—	—	167	0.00	167	16.7	0.00	—	585
City Park	—	—	—	—	—	—	—	—	—	—	—	2.41	0.00	2.41	0.24	0.00	—	8.43
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,460	0.00	1,460	146	0.00	—	5,108
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	47.6	0.00	47.6	4.76	0.00	—	167
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	36.4	0.00	36.4	3.63	0.00	—	127
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	97.6	0.00	97.6	9.76	0.00	—	341
Junior High School	—	—	—	—	—	—	—	—	—	—	—	12.7	0.00	12.7	1.27	0.00	—	44.4
Elementary School	—	—	—	—	—	—	—	—	—	—	—	10.00	0.00	10.00	1.00	0.00	—	35.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	9.37	0.00	9.37	0.94	0.00	—	32.8

General Office Building	—	—	—	—	—	—	—	—	—	—	—	27.7	0.00	27.7	2.76	0.00	—	96.8
City Park	—	—	—	—	—	—	—	—	—	—	—	0.40	0.00	0.40	0.04	0.00	—	1.40
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	242	0.00	242	24.2	0.00	—	846

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.48	5.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.4	27.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.48	5.48
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.18	4.18
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.4	27.4
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.62	0.62
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.81	0.81
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39.1	39.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.91	0.91

Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.69	0.69
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.54	4.54
Junior High School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06	0.06
Elementary School	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.47	6.47

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	37,961	37,961	37,961	13,855,688	184,187	184,187	184,187	67,228,178

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Condo/Townhouse	—
Wood Fireplaces	253
Gas Fireplaces	397
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	72
Conventional Wood Stoves	0
Catalytic Wood Stoves	36
Non-Catalytic Wood Stoves	36
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	193
Gas Fireplaces	303
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	55
Conventional Wood Stoves	0
Catalytic Wood Stoves	28
Non-Catalytic Wood Stoves	28
Pellet Wood Stoves	0
Single Family Housing	—

Wood Fireplaces	687
Gas Fireplaces	1080
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	196
Conventional Wood Stoves	0
Catalytic Wood Stoves	98
Non-Catalytic Wood Stoves	98
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
10483890.75	3,494,630	864,372	288,124	28,750

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Condo/Townhouse	3,724,915	0.00	0.0000	0.0000	16,764,800
Apartments Low Rise	2,449,123	0.00	0.0000	0.0000	8,374,722

Single Family Housing	16,735,967	0.00	0.0000	0.0000	57,103,720
Junior High School	419,734	0.00	0.0000	0.0000	3,957,049
Elementary School	235,260	0.00	0.0000	0.0000	2,217,920
Strip Mall	871,207	0.00	0.0000	0.0000	862,560
General Office Building	6,976,501	0.00	0.0000	0.0000	9,623,084
City Park	0.00	0.00	0.0000	0.0000	0.00
Other Asphalt Surfaces	0.00	0.00	0.0000	0.0000	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Condo/Townhouse	23,093,134	0.00
Apartments Low Rise	17,623,707	0.00
Single Family Housing	62,786,457	301,581,163
Junior High School	1,888,483	0.00
Elementary School	1,488,483	0.00
Strip Mall	7,407,252	0.00
General Office Building	59,245,057	0.00
City Park	0.00	1,240
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Condo/Townhouse	534	—

Apartments Low Rise	408	—
Single Family Housing	1,094	—
Junior High School	142	—
Elementary School	112	—
Strip Mall	105	—
General Office Building	310	—
City Park	4.47	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Junior High School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00

Junior High School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior High School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior High School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Elementary School	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Elementary School	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Elementary School	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Elementary School	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A

Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7

Linguistic	8.49
Poverty	39.2
Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948

Housing	—
Homeownership	90.09367381
Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—

Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	PGE Power Label for 2021, extrapolated based on RPS targets
Land Use	Per client's data.
Operations: Hearths	—
Operations: Energy Use	—
Operations: Water and Waste Water	—
Operations: Road Dust	Paved road dust percentage updated per discussions with team

Sequestration Modeling

Project Report - i-Tree Planting Calculator

Location: El Dorado Hills, California 95762
Electricity Emissions Factor: 556.45 pounds CO2 equivalent/MWh
Fuel Emissions Factor: 52.00 kilograms CO2 equivalent/MMBtu
Lifetime: 30 years
Project Lifetime Tree Mortality: 10%

All amounts in the tables are for the full lifetime of the project.

Location		CO_2 (Carbon Dioxide) Benefits			
Group Identifier	Tree Group Characteristics	CO_2 (Carbon Dioxide) Avoided (pounds)	CO_2 Avoided ($)	CO_2 Sequestered (pounds)	CO_2 Sequestered ($)
1	• (858.0) Oak spp(Quercus) at 1.0 inch DBH (Diameter at Breast Height). • Planted 0-19 feet and north (0°) of buildings that were built post-1980 with heating and cooling. • Trees are in excellent condition and planted in full sun.	2,306,964.2	$53,652.88	4,811,224.8	$111,894.26
Total		**2,306,964.2**	**$53,652.88**	**4,811,224.8**	**$111,894.26**

Location		Energy Benefits			
Group Identifier	Tree Group Characteristics	Electricity Saved (kWh) (Kilowatt-Hours)	Electricity Saved ($)	Fuel Saved (MMBtu) (Millions of British Thermal Units)	Fuel Saved ($)
1	• (858.0) Oak spp(Quercus) at 1.0 inch DBH (Diameter at Breast Height). • Planted 0-19 feet and north (0°) of buildings that were built post-1980 with heating and cooling. • Trees are in excellent condition and planted in full sun.	3,079,109.0	$630,293.62	3,723.3	$48,178.15
Total		**3,079,109.0**	**$630,293.62**	**3,723.3**	**$48,178.15**

Location		Ecological Benefits			
Group Identifier	Tree Group Characteristics	Tree Biomass (short ton)	Rainfall Interception (gallons)	Runoff Avoided (gallons)	Runoff Avoided ($)
1	• (858.0) Oak spp(Quercus) at 1.0 inch DBH (Diameter at Breast Height). • Planted 0-19 feet and north (0°) of buildings that were built post-1980 with heating and cooling. • Trees are in excellent condition and planted in full sun.	1,190.3	16,258,939.8	581,554.6	$5,196.77
Total		**1,190.3**	**16,258,939.8**	**581,554.6**	**$5,196.77**

Location		Air Benefits									
Group Identifier	Tree Group Characteristics	O_3 (Ozone) Removed (pounds)	NO_2 (Nitrogen Dioxide) Avoided (pounds)	NO_2 (Nitrogen Dioxide) Removed (pounds)	SO_2 (Sulfur Dioxide) Avoided (pounds)	SO_2 (Sulfur Dioxide) Removed (pounds)	VOC (Volatile Organic Compound) Avoided (pounds)	$PM_{2.5}$ (Particulate matter smaller than 2.5 micrometers in diameter) Avoided (pounds)	$PM_{2.5}$ (Particulate matter smaller than 2.5 micrometers in diameter) Removed (pounds)	Avoided Value (Values for avoided pollutants) ($)	Removal Value (Values for removed pollutants) ($)
1	• (858.0) Oak spp(Quercus) at 1.0 inch DBH (Diameter at Breast Height). • Planted 0-19 feet and north (0°) of buildings that were built post-1980 with heating and cooling. • Trees are in excellent condition and planted in full sun.	10,145.08	165.97	389.04	584.05	116.40	1,562.39	1,001.21	19,833.19	$2,753.94	$937.23
Total		**10,145.08**	**165.97**	**389.04**	**584.05**	**116.40**	**1,562.39**	**1,001.21**	**19,833.19**	**$2,753.94**	**$937.23**

Sequestration and biomass are gross values that exclude losses to mortality.

Application v2.6.0, powered by engine v0.14.0 (APIv2) and database v12.0.54.

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https://help.itreetools.org/eula/
Version 2.6.0

Project Report - i-Tree Planting Calculator

Location: El Dorado Hills, California 95762
Electricity Emissions Factor: 252.40 kilograms CO2 equivalent/MWh
Fuel Emissions Factor: 52.00 kilograms CO2 equivalent/MMBtu
Lifetime: 30 years
Project Lifetime Tree Mortality: 10%

All amounts in the tables are for the full lifetime of the project.

Location		CO_2 (Carbon Dioxide) Benefits			
Group Identifier	**Tree Group Characteristics**	**CO_2 (Carbon Dioxide) Avoided (pounds)**	**CO_2 Avoided ($)**	**CO_2 Sequestered (pounds)**	**CO_2 Sequestered ($)**
1	• (31252.0) Oak spp(Quercus) at 1.0 inch DBH (Diameter at Breast Height). • Planted 0-19 feet and north (0°) of buildings that were built post-1980 with heating and cooling. • Trees are in excellent condition and planted in full sun.	84,029,560.6	$1,954,268.59	175,245,220.0	$4,075,663.69
2	• (1400.0) Oak spp(Quercus) at 1.0 inch DBH (Diameter at Breast Height). • Planted 0-19 feet and north (0°) of buildings that were built post-1980 with heating and cooling. • Trees are in excellent condition and planted in full sun.	3,764,283.4	$87,545.63	7,850,483.4	$182,578.05
3	• (347.0) Oak spp(Quercus) at 1.0 inch DBH (Diameter at Breast Height). • Planted 0-19 feet and north (0°) of buildings that were built post-1980 with heating and cooling. • Trees are in excellent condition and planted in full sun.	933,004.5	$21,698.81	1,945,798.4	$45,253.27
Total		**88,726,848.6**	**$2,063,513.03**	**185,041,501.9**	**$4,303,495.01**

Location		Energy Benefits			
Group Identifier	**Tree Group Characteristics**	**Electricity Saved (kWh) (Kilowatt-Hours)**	**Electricity Saved ($)**	**Fuel Saved (MMBtu) (Millions of British Thermal Units)**	**Fuel Saved ($)**
1	• (31252.0) Oak spp(Quercus) at 1.0 inch DBH (Diameter at Breast Height). • Planted 0-19 feet and north (0°) of buildings that were built post-1980 with heating and cooling. • Trees are in excellent condition and planted in full sun.	112,154,214.4	$22,957,967.69	135,618.4	$1,754,852.72
2	• (1400.0) Oak spp(Quercus) at 1.0 inch DBH (Diameter at Breast Height). • Planted 0-19 feet and north (0°) of buildings that were built post-1980 with heating and cooling. • Trees are in excellent condition and planted in full sun.	5,024,187.3	$1,028,451.13	6,075.3	$78,612.37
3	• (347.0) Oak spp(Quercus) at 1.0 inch DBH (Diameter at Breast Height). • Planted 0-19 feet and north (0°) of buildings that were built post-1980 with heating and cooling. • Trees are in excellent condition and planted in full sun.	1,245,280.7	$254,908.96	1,505.8	$19,484.64
Total		**118,423,682.4**	**$24,241,327.78**	**143,199.5**	**$1,852,949.73**

Location		Ecological Benefits			
Group Identifier	**Tree Group Characteristics**	**Tree Biomass (short ton)**	**Rainfall Interception (gallons)**	**Runoff Avoided (gallons)**	**Runoff Avoided ($)**
1	• (31252.0) Oak spp(Quercus) at 1.0 inch DBH (Diameter at Breast Height). • Planted 0-19 feet and north (0°) of buildings that were built post-1980 with heating and cooling. • Trees are in excellent condition and planted in full sun.	43,356.7	592,219,564.8	21,182,685.5	$189,288.51
2	• (1400.0) Oak spp(Quercus) at 1.0 inch DBH (Diameter at Breast Height). • Planted 0-19 feet and north (0°) of buildings that were built post-1980 with heating and cooling. • Trees are in excellent condition and planted in full sun.	1,942.3	26,529,738.6	948,923.6	$8,479.58
3	• (347.0) Oak spp(Quercus) at 1.0 inch DBH (Diameter at Breast Height). • Planted 0-19 feet and north (0°) of buildings that were built post-1980 with heating and cooling. • Trees are in excellent condition and planted in full sun.	481.4	6,575,585.2	235,197.5	$2,101.73
Total		**45,780.4**	**625,324,888.6**	**22,366,806.5**	**$199,869.82**

Location		Air Benefits									
Group Identifier	Tree Group Characteristics	O_3 (Ozone) Removed (pounds)	NO_2 (Nitrogen Dioxide) Avoided (pounds)	NO_2 (Nitrogen Dioxide) Removed (pounds)	SO_2 (Sulfur Dioxide) Avoided (pounds)	SO_2 (Sulfur Dioxide) Removed (pounds)	VOC (Volatile Organic Compound) Avoided (pounds)	$PM_{2.5}$ (Particulate matter smaller than 2.5 micrometers in diameter) Avoided (pounds)	$PM_{2.5}$ (Particulate matter smaller than 2.5 micrometers in diameter) Removed (pounds)	Avoided Value (Values for avoided pollutants) ($)	Removal Value (Values for removed pollutants) ($)
1	• (31252.0) Oak spp(Quercus) at 1.0 inch DBH (Diameter at Breast Height). • Planted 0-19 feet and north (0°) of buildings that were built post-1980 with heating and cooling. • Trees are in excellent condition and planted in full sun.	369,526.86	6,045.24	14,170.63	21,273.58	4,239.79	56,908.70	36,468.26	722,408.81	$100,310.07	$34,137.87
2	• (1400.0) Oak spp(Quercus) at 1.0 inch DBH (Diameter at Breast Height). • Planted 0-19 feet and north (0°) of buildings that were built post-1980 with heating and cooling. • Trees are in excellent condition and planted in full sun.	16,553.74	270.81	634.80	953.00	189.93	2,549.35	1,633.67	32,361.84	$4,493.60	$1,529.28
3	• (347.0) Oak spp(Quercus) at 1.0 inch DBH (Diameter at Breast Height). • Planted 0-19 feet and north (0°) of buildings that were built post-1980 with heating and cooling. • Trees are in excellent condition and planted in full sun.	4,102.96	67.12	157.34	236.21	47.08	631.87	404.92	8,021.11	$1,113.77	$379.04
Total		**390,183.57**	**6,383.17**	**14,962.78**	**22,462.78**	**4,476.79**	**60,089.92**	**38,506.85**	**762,791.77**	**$105,917.44**	**$36,046.19**

Sequestration and biomass are gross values that exclude losses to mortality.

Application v2.6.0, powered by engine v0.14.0 (APIv2) and database v12.0.54.

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Version 2.6.0

Secondary Units Modeling

VMVSP Secondary Units _ Unmit 2045 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	VMVSP Secondary Units _ Unmit 2045
Operational Year	2045
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	98.0	Dwelling Unit	31.8	78,400	0.00	—	280	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	156	156	4.67	204	0.37	25.6	2.99	28.6	25.5	0.76	26.2	2,766	5,054	7,820	7.16	0.35	1.92	8,104
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	155	155	4.81	198	0.37	25.6	2.99	28.6	25.5	0.76	26.2	2,766	4,821	7,587	7.18	0.36	0.60	7,875
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	37.3	38.9	2.49	57.1	0.11	5.80	2.97	8.78	5.78	0.76	6.53	656	3,991	4,646	5.22	0.20	1.15	4,839
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.80	7.10	0.46	10.4	0.02	1.06	0.54	1.60	1.05	0.14	1.19	109	661	769	0.86	0.03	0.19	801

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.89	2.77	0.97	13.4	0.03	0.01	2.99	3.01	0.01	0.76	0.77	—	2,991	2,991	0.13	0.12	1.36	3,032
Area	153	153	2.98	191	0.34	25.5	—	25.5	25.4	—	25.4	2,722	1,150	3,871	2.51	0.20	—	3,992
Energy	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Water	—	—	—	—	—	—	—	—	—	—	—	11.0	0.00	11.0	1.13	0.03	—	47.1
Waste	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	156	156	4.67	204	0.37	25.6	2.99	28.6	25.5	0.76	26.2	2,766	5,054	7,820	7.16	0.35	1.92	8,104
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.69	2.56	1.16	12.8	0.03	0.01	2.99	3.01	0.01	0.76	0.77	—	2,773	2,773	0.15	0.14	0.04	2,817
Area	152	152	2.93	185	0.34	25.5	—	25.5	25.4	—	25.4	2,722	1,135	3,857	2.51	0.20	—	3,978
Energy	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Water	—	—	—	—	—	—	—	—	—	—	—	11.0	0.00	11.0	1.13	0.03	—	47.1
Waste	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	155	155	4.81	198	0.37	25.6	2.99	28.6	25.5	0.76	26.2	2,766	4,821	7,587	7.18	0.36	0.60	7,875
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.69	2.57	1.09	12.5	0.03	0.01	2.97	2.99	0.01	0.76	0.77	—	2,815	2,815	0.14	0.13	0.59	2,858
Area	34.5	36.3	0.68	44.3	0.08	5.73	—	5.73	5.70	—	5.70	611	262	874	0.56	0.04	—	901
Energy	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Water	—	—	—	—	—	—	—	—	—	—	—	11.0	0.00	11.0	1.13	0.03	—	47.1
Waste	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	37.3	38.9	2.49	57.1	0.11	5.80	2.97	8.78	5.78	0.76	6.53	656	3,991	4,646	5.22	0.20	1.15	4,839

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.49	0.47	0.20	2.28	0.01	< 0.005	0.54	0.55	< 0.005	0.14	0.14	—	466	466	0.02	0.02	0.10	473
Area	6.30	6.62	0.12	8.09	0.01	1.05	—	1.05	1.04	—	1.04	101	43.4	145	0.09	0.01	—	149
Energy	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	151	151	0.01	< 0.005	—	152
Water	—	—	—	—	—	—	—	—	—	—	—	1.82	0.00	1.82	0.19	< 0.005	—	7.80
Waste	—	—	—	—	—	—	—	—	—	—	—	5.48	0.00	5.48	0.55	0.00	—	19.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Total	6.80	7.10	0.46	10.4	0.02	1.06	0.54	1.60	1.05	0.14	1.19	109	661	769	0.86	0.03	0.19	801

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.89	2.77	0.97	13.4	0.03	0.01	2.99	3.01	0.01	0.76	0.77	—	2,991	2,991	0.13	0.12	1.36	3,032
Area	153	153	2.98	191	0.34	25.5	—	25.5	25.4	—	25.4	2,722	1,150	3,871	2.51	0.20	—	3,992
Energy	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Water	—	—	—	—	—	—	—	—	—	—	—	11.0	0.00	11.0	1.13	0.03	—	47.1
Waste	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	156	156	4.67	204	0.37	25.6	2.99	28.6	25.5	0.76	26.2	2,766	5,054	7,820	7.16	0.35	1.92	8,104
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.69	2.56	1.16	12.8	0.03	0.01	2.99	3.01	0.01	0.76	0.77	—	2,773	2,773	0.15	0.14	0.04	2,817
Area	152	152	2.93	185	0.34	25.5	—	25.5	25.4	—	25.4	2,722	1,135	3,857	2.51	0.20	—	3,978
Energy	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Water	—	—	—	—	—	—	—	—	—	—	—	11.0	0.00	11.0	1.13	0.03	—	47.1

Waste	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	155	155	4.81	198	0.37	25.6	2.99	28.6	25.5	0.76	26.2	2,766	4,821	7,587	7.18	0.36	0.60	7,875
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.69	2.57	1.09	12.5	0.03	0.01	2.97	2.99	0.01	0.76	0.77	—	2,815	2,815	0.14	0.13	0.59	2,858
Area	34.5	36.3	0.68	44.3	0.08	5.73	—	5.73	5.70	—	5.70	611	262	874	0.56	0.04	—	901
Energy	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Water	—	—	—	—	—	—	—	—	—	—	—	11.0	0.00	11.0	1.13	0.03	—	47.1
Waste	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	37.3	38.9	2.49	57.1	0.11	5.80	2.97	8.78	5.78	0.76	6.53	656	3,991	4,646	5.22	0.20	1.15	4,839
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.49	0.47	0.20	2.28	0.01	< 0.005	0.54	0.55	< 0.005	0.14	0.14	—	466	466	0.02	0.02	0.10	473
Area	6.30	6.62	0.12	8.09	0.01	1.05	—	1.05	1.04	—	1.04	101	43.4	145	0.09	0.01	—	149
Energy	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	151	151	0.01	< 0.005	—	152
Water	—	—	—	—	—	—	—	—	—	—	—	1.82	0.00	1.82	0.19	< 0.005	—	7.80
Waste	—	—	—	—	—	—	—	—	—	—	—	5.48	0.00	5.48	0.55	0.00	—	19.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Total	6.80	7.10	0.46	10.4	0.02	1.06	0.54	1.60	1.05	0.14	1.19	109	661	769	0.86	0.03	0.19	801

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Total	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Total	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	151	151	0.01	< 0.005	—	152
Total	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	151	151	0.01	< 0.005	—	152

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Total	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Total	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	151	151	0.01	< 0.005	—	152
Total	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	151	151	0.01	< 0.005	—	152

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	152	150	2.93	185	0.34	25.5	—	25.5	25.4	—	25.4	2,722	1,135	3,857	2.51	0.20	—	3,978
Consumer Products	—	1.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.51	0.48	0.05	5.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.9	14.9	< 0.005	< 0.005	—	14.9
Total	153	153	2.98	191	0.34	25.5	—	25.5	25.4	—	25.4	2,722	1,150	3,871	2.51	0.20	—	3,992
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	152	150	2.93	185	0.34	25.5	—	25.5	25.4	—	25.4	2,722	1,135	3,857	2.51	0.20	—	3,978
Consumer Products	—	1.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	152	152	2.93	185	0.34	25.5	—	25.5	25.4	—	25.4	2,722	1,135	3,857	2.51	0.20	—	3,978
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	6.25	6.15	0.12	7.59	0.01	1.05	—	1.05	1.04	—	1.04	101	42.2	143	0.09	0.01	—	148
Consumer Products	—	0.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.04	< 0.005	0.50	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Total	6.30	6.62	0.12	8.09	0.01	1.05	—	1.05	1.04	—	1.04	101	43.4	145	0.09	0.01	—	149

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	152	150	2.93	185	0.34	25.5	—	25.5	25.4	—	25.4	2,722	1,135	3,857	2.51	0.20	—	3,978
Consumer Products	—	1.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.51	0.48	0.05	5.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.9	14.9	< 0.005	< 0.005	—	14.9

Total	153	153	2.98	191	0.34	25.5	—	25.5	25.4	—	25.4	2,722	1,150	3,871	2.51	0.20	—	3,992
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	152	150	2.93	185	0.34	25.5	—	25.5	25.4	—	25.4	2,722	1,135	3,857	2.51	0.20	—	3,978
Consumer Products	—	1.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	152	152	2.93	185	0.34	25.5	—	25.5	25.4	—	25.4	2,722	1,135	3,857	2.51	0.20	—	3,978
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	6.25	6.15	0.12	7.59	0.01	1.05	—	1.05	1.04	—	1.04	101	42.2	143	0.09	0.01	—	148
Consumer Products	—	0.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.04	< 0.005	0.50	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Total	6.30	6.62	0.12	8.09	0.01	1.05	—	1.05	1.04	—	1.04	101	43.4	145	0.09	0.01	—	149

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	11.0	0.00	11.0	1.13	0.03	—	47.1
Total	—	—	—	—	—	—	—	—	—	—	—	11.0	0.00	11.0	1.13	0.03	—	47.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	11.0	0.00	11.0	1.13	0.03	—	47.1
Total	—	—	—	—	—	—	—	—	—	—	—	11.0	0.00	11.0	1.13	0.03	—	47.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	1.82	0.00	1.82	0.19	< 0.005	—	7.80
Total	—	—	—	—	—	—	—	—	—	—	—	1.82	0.00	1.82	0.19	< 0.005	—	7.80

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	11.0	0.00	11.0	1.13	0.03	—	47.1
Total	—	—	—	—	—	—	—	—	—	—	—	11.0	0.00	11.0	1.13	0.03	—	47.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	11.0	0.00	11.0	1.13	0.03	—	47.1
Total	—	—	—	—	—	—	—	—	—	—	—	11.0	0.00	11.0	1.13	0.03	—	47.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	1.82	0.00	1.82	0.19	< 0.005	—	7.80
Total	—	—	—	—	—	—	—	—	—	—	—	1.82	0.00	1.82	0.19	< 0.005	—	7.80

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Total	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Total	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	5.48	0.00	5.48	0.55	0.00	—	19.2
Total	—	—	—	—	—	—	—	—	—	—	—	5.48	0.00	5.48	0.55	0.00	—	19.2

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Total	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Total	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	5.48	0.00	5.48	0.55	0.00	—	19.2
Total	—	—	—	—	—	—	—	—	—	—	—	5.48	0.00	5.48	0.55	0.00	—	19.2

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	912	912	912	332,718	4,217	4,217	4,217	1,539,260

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	912	912	912	332,718	4,217	4,217	4,217	1,539,260

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	34
Gas Fireplaces	54
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	5
Non-Catalytic Wood Stoves	5
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	34
Gas Fireplaces	54
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	5
Non-Catalytic Wood Stoves	5
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
158760	52,920	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	835,520	0.00	0.0000	0.0000	2,850,822

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	835,520	0.00	0.0000	0.0000	2,850,822

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	5,734,985	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	5,734,985	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	61.4	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	61.4	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2

Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381

Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0

No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Units all 800 square feet
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	Per client's data.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team
Construction: Architectural Coatings	Per client's data
Construction: Paving	Per client's data
Operations: Road Dust	Paved road dust percentage updated per discussions with team
Characteristics: Utility Information	Utility EFs updated per RPS
Operations: Water and Waste Water	17.6 acre-feet of water

VMVSP Secondary Units _ Policies 2045 Detailed Report

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1.1. Basic Project Information

Data Field	Value
Project Name	VMVSP Secondary Units _ Policies 2045
Operational Year	2045
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	10.4
Location	38.64783565110025, -120.99284145657958
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	407
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	98.0	Dwelling Unit	31.8	78,400	0.00	—	280	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-13	Use Low-VOC Paints for Construction
Energy	E-2	Require Energy Efficient Appliances

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.58	8.17	3.57	42.1	0.12	3.35	2.99	6.34	3.23	0.76	3.99	574	5,776	6,351	6.94	0.15	1.92	6,571
Mit.	8.58	8.17	3.57	42.1	0.12	3.35	2.99	6.34	3.23	0.76	3.99	574	5,776	6,351	6.94	0.15	1.92	6,571
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.87	7.47	3.70	35.8	0.11	3.35	2.99	6.34	3.23	0.76	3.99	574	5,543	6,118	6.96	0.16	0.60	6,342
Mit.	7.87	7.47	3.70	35.8	0.11	3.35	2.99	6.34	3.23	0.76	3.99	574	5,543	6,118	6.96	0.16	0.60	6,342
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.17	5.76	2.25	20.6	0.05	0.81	2.97	3.78	0.78	0.76	1.54	162	4,153	4,315	5.00	0.16	1.15	4,487

Mit.	4.17	5.76	2.25	20.6	0.05	0.81	2.97	3.78	0.78	0.76	1.54	162	4,153	4,315	5.00	0.16	1.15	4,487
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.76	1.05	0.41	3.77	0.01	0.15	0.54	0.69	0.14	0.14	0.28	26.7	688	714	0.83	0.03	0.19	743
Mit.	0.76	1.05	0.41	3.77	0.01	0.15	0.54	0.69	0.14	0.14	0.28	26.7	688	714	0.83	0.03	0.19	743
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.89	2.77	0.97	13.4	0.03	0.01	2.99	3.01	0.01	0.76	0.77	—	2,991	2,991	0.13	0.12	1.36	3,032
Area	5.61	5.35	1.88	28.3	0.08	3.28	—	3.28	3.16	—	3.16	533	1,872	2,405	2.53	< 0.005	—	2,469
Energy	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Water	—	—	—	—	—	—	—	—	—	—	—	8.79	0.00	8.79	0.90	0.02	—	37.7
Waste	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	8.58	8.17	3.57	42.1	0.12	3.35	2.99	6.34	3.23	0.76	3.99	574	5,776	6,351	6.94	0.15	1.92	6,571
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.69	2.56	1.16	12.8	0.03	0.01	2.99	3.01	0.01	0.76	0.77	—	2,773	2,773	0.15	0.14	0.04	2,817
Area	5.10	4.87	1.82	22.7	0.08	3.28	—	3.28	3.16	—	3.16	533	1,857	2,390	2.52	< 0.005	—	2,454
Energy	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Water	—	—	—	—	—	—	—	—	—	—	—	8.79	0.00	8.79	0.90	0.02	—	37.7

Waste	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	7.87	7.47	3.70	35.8	0.11	3.35	2.99	6.34	3.23	0.76	3.99	574	5,543	6,118	6.96	0.16	0.60	6,342
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.69	2.57	1.09	12.5	0.03	0.01	2.97	2.99	0.01	0.76	0.77	—	2,815	2,815	0.14	0.13	0.59	2,858
Area	1.40	3.15	0.44	7.86	0.02	0.74	—	0.74	0.71	—	0.71	120	425	544	0.57	< 0.005	—	559
Energy	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Water	—	—	—	—	—	—	—	—	—	—	—	8.79	0.00	8.79	0.90	0.02	—	37.7
Waste	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	4.17	5.76	2.25	20.6	0.05	0.81	2.97	3.78	0.78	0.76	1.54	162	4,153	4,315	5.00	0.16	1.15	4,487
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.49	0.47	0.20	2.28	0.01	< 0.005	0.54	0.55	< 0.005	0.14	0.14	—	466	466	0.02	0.02	0.10	473
Area	0.25	0.58	0.08	1.44	< 0.005	0.13	—	0.13	0.13	—	0.13	19.8	70.3	90.1	0.09	< 0.005	—	92.5
Energy	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	151	151	0.01	< 0.005	—	152
Water	—	—	—	—	—	—	—	—	—	—	—	1.46	0.00	1.46	0.15	< 0.005	—	6.24
Waste	—	—	—	—	—	—	—	—	—	—	—	5.48	0.00	5.48	0.55	0.00	—	19.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Total	0.76	1.05	0.41	3.77	0.01	0.15	0.54	0.69	0.14	0.14	0.28	26.7	688	714	0.83	0.03	0.19	743

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.89	2.77	0.97	13.4	0.03	0.01	2.99	3.01	0.01	0.76	0.77	—	2,991	2,991	0.13	0.12	1.36	3,032

Area	5.61	5.35	1.88	28.3	0.08	3.28	—	3.28	3.16	—	3.16	533	1,872	2,405	2.53	< 0.005	—	2,469
Energy	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Water	—	—	—	—	—	—	—	—	—	—	—	8.79	0.00	8.79	0.90	0.02	—	37.7
Waste	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	8.58	8.17	3.57	42.1	0.12	3.35	2.99	6.34	3.23	0.76	3.99	574	5,776	6,351	6.94	0.15	1.92	6,571
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.69	2.56	1.16	12.8	0.03	0.01	2.99	3.01	0.01	0.76	0.77	—	2,773	2,773	0.15	0.14	0.04	2,817
Area	5.10	4.87	1.82	22.7	0.08	3.28	—	3.28	3.16	—	3.16	533	1,857	2,390	2.52	< 0.005	—	2,454
Energy	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Water	—	—	—	—	—	—	—	—	—	—	—	8.79	0.00	8.79	0.90	0.02	—	37.7
Waste	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	7.87	7.47	3.70	35.8	0.11	3.35	2.99	6.34	3.23	0.76	3.99	574	5,543	6,118	6.96	0.16	0.60	6,342
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.69	2.57	1.09	12.5	0.03	0.01	2.97	2.99	0.01	0.76	0.77	—	2,815	2,815	0.14	0.13	0.59	2,858
Area	1.40	3.15	0.44	7.86	0.02	0.74	—	0.74	0.71	—	0.71	120	425	544	0.57	< 0.005	—	559
Energy	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Water	—	—	—	—	—	—	—	—	—	—	—	8.79	0.00	8.79	0.90	0.02	—	37.7
Waste	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	4.17	5.76	2.25	20.6	0.05	0.81	2.97	3.78	0.78	0.76	1.54	162	4,153	4,315	5.00	0.16	1.15	4,487
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.49	0.47	0.20	2.28	0.01	< 0.005	0.54	0.55	< 0.005	0.14	0.14	—	466	466	0.02	0.02	0.10	473
Area	0.25	0.58	0.08	1.44	< 0.005	0.13	—	0.13	0.13	—	0.13	19.8	70.3	90.1	0.09	< 0.005	—	92.5
Energy	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	151	151	0.01	< 0.005	—	152

Water	—	—	—	—	—	—	—	—	—	—	—	1.46	0.00	1.46	0.15	< 0.005	—	6.24
Waste	—	—	—	—	—	—	—	—	—	—	—	5.48	0.00	5.48	0.55	0.00	—	19.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Total	0.76	1.05	0.41	3.77	0.01	0.15	0.54	0.69	0.14	0.14	0.28	26.7	688	714	0.83	0.03	0.19	743

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Total	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Total	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	151	151	0.01	< 0.005	—	152
Total	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	151	151	0.01	< 0.005	—	152

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Total	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Total	0.08	0.04	0.72	0.31	< 0.005	0.06	—	0.06	0.06	—	0.06	—	914	914	0.08	< 0.005	—	916
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	151	151	0.01	< 0.005	—	152
Total	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	151	151	0.01	< 0.005	—	152

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.10	2.52	1.82	22.7	0.08	3.28	—	3.28	3.16	—	3.16	533	1,857	2,390	2.52	< 0.005	—	2,454
Consumer Products	—	1.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	0.51	0.48	0.05	5.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.9	14.9	< 0.005	< 0.005	—	14.9
Total	5.61	5.35	1.88	28.3	0.08	3.28	—	3.28	3.16	—	3.16	533	1,872	2,405	2.53	< 0.005	—	2,469
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.10	2.52	1.82	22.7	0.08	3.28	—	3.28	3.16	—	3.16	533	1,857	2,390	2.52	< 0.005	—	2,454
Consumer Products	—	1.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.10	4.87	1.82	22.7	0.08	3.28	—	3.28	3.16	—	3.16	533	1,857	2,390	2.52	< 0.005	—	2,454
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.21	0.10	0.07	0.93	< 0.005	0.13	—	0.13	0.13	—	0.13	19.8	69.1	88.9	0.09	< 0.005	—	91.3
Consumer Products	—	0.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.04	< 0.005	0.50	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Total	0.25	0.58	0.08	1.44	< 0.005	0.13	—	0.13	0.13	—	0.13	19.8	70.3	90.1	0.09	< 0.005	—	92.5

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.10	2.52	1.82	22.7	0.08	3.28	—	3.28	3.16	—	3.16	533	1,857	2,390	2.52	< 0.005	—	2,454
Consumer Products	—	1.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.51	0.48	0.05	5.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.9	14.9	< 0.005	< 0.005	—	14.9
Total	5.61	5.35	1.88	28.3	0.08	3.28	—	3.28	3.16	—	3.16	533	1,872	2,405	2.53	< 0.005	—	2,469
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	5.10	2.52	1.82	22.7	0.08	3.28	—	3.28	3.16	—	3.16	533	1,857	2,390	2.52	< 0.005	—	2,454
Consumer Products	—	1.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.10	4.87	1.82	22.7	0.08	3.28	—	3.28	3.16	—	3.16	533	1,857	2,390	2.52	< 0.005	—	2,454
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.21	0.10	0.07	0.93	< 0.005	0.13	—	0.13	0.13	—	0.13	19.8	69.1	88.9	0.09	< 0.005	—	91.3
Consumer Products	—	0.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	0.05	0.04	< 0.005	0.50	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Total	0.25	0.58	0.08	1.44	< 0.005	0.13	—	0.13	0.13	—	0.13	19.8	70.3	90.1	0.09	< 0.005	—	92.5

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	8.79	0.00	8.79	0.90	0.02	—	37.7
Total	—	—	—	—	—	—	—	—	—	—	—	8.79	0.00	8.79	0.90	0.02	—	37.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	8.79	0.00	8.79	0.90	0.02	—	37.7
Total	—	—	—	—	—	—	—	—	—	—	—	8.79	0.00	8.79	0.90	0.02	—	37.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	1.46	0.00	1.46	0.15	< 0.005	—	6.24
Total	—	—	—	—	—	—	—	—	—	—	—	1.46	0.00	1.46	0.15	< 0.005	—	6.24

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	8.79	0.00	8.79	0.90	0.02	—	37.7
Total	—	—	—	—	—	—	—	—	—	—	—	8.79	0.00	8.79	0.90	0.02	—	37.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	8.79	0.00	8.79	0.90	0.02	—	37.7
Total	—	—	—	—	—	—	—	—	—	—	—	8.79	0.00	8.79	0.90	0.02	—	37.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	1.46	0.00	1.46	0.15	< 0.005	—	6.24
Total	—	—	—	—	—	—	—	—	—	—	—	1.46	0.00	1.46	0.15	< 0.005	—	6.24

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Total	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Total	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	5.48	0.00	5.48	0.55	0.00	—	19.2
Total	—	—	—	—	—	—	—	—	—	—	—	5.48	0.00	5.48	0.55	0.00	—	19.2

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Total	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116

Total	—	—	—	—	—	—	—	—	—	—	—	33.1	0.00	33.1	3.31	0.00	—	116
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	5.48	0.00	5.48	0.55	0.00	—	19.2
Total	—	—	—	—	—	—	—	—	—	—	—	5.48	0.00	5.48	0.55	0.00	—	19.2

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.09	0.09

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	912	912	912	332,718	4,217	4,217	4,217	1,539,260

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	912	912	912	332,718	4,217	4,217	4,217	1,539,260

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	88
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	5
Non-Catalytic Wood Stoves	5
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	88
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	10
Conventional Wood Stoves	0
Catalytic Wood Stoves	5
Non-Catalytic Wood Stoves	5
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
158760	52,920	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	835,520	0.00	0.0000	0.0000	2,850,822

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	834,955	0.00	0.0000	0.0000	2,850,822

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	4,587,988	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	4,587,988	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	61.4	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	61.4	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.0	annual days of extreme heat
Extreme Precipitation	11.2	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	50.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	76.9
AQ-PM	14.3
AQ-DPM	7.14
Drinking Water	50.2
Lead Risk Housing	7.50
Pesticides	19.8
Toxic Releases	14.8
Traffic	64.2
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	43.8
Haz Waste Facilities/Generators	56.4
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	34.9
Cardio-vascular	29.4
Low Birth Weights	60.6
Socioeconomic Factor Indicators	—
Education	23.7
Housing	29.7
Linguistic	8.49
Poverty	39.2

Unemployment	70.9

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	56.10162967
Employed	51.71307584
Median HI	78.26254331
Education	—
Bachelor's or higher	64.07031952
High school enrollment	13.5249583
Preschool enrollment	57.97510586
Transportation	—
Auto Access	59.70742974
Active commuting	15.10329783
Social	—
2-parent households	92.95521622
Voting	90.3118183
Neighborhood	—
Alcohol availability	89.56756063
Park access	9.867830104
Retail density	13.49929424
Supermarket access	20.99319902
Tree canopy	97.08712948
Housing	—
Homeownership	90.09367381

Housing habitability	74.47709483
Low-inc homeowner severe housing cost burden	44.87360452
Low-inc renter severe housing cost burden	48.96702169
Uncrowded housing	70.98678301
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.0
Asthma ER Admissions	68.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	58.0
Cognitively Disabled	10.2
Physically Disabled	36.0
Heart Attack ER Admissions	47.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	43.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0

No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	7.7
SLR Inundation Area	0.0
Children	79.8
Elderly	6.6
English Speaking	83.0
Foreign-born	13.8
Outdoor Workers	19.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.5
Traffic Density	38.4
Traffic Access	0.0
Other Indices	—
Hardship	46.4
Other Decision Support	—
2016 Voting	91.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	23.0
Healthy Places Index Score for Project Location (b)	69.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Units all 800 square feet
Construction: Construction Phases	Per Client's data.
Construction: Dust From Material Movement	Per client's data.
Construction: On-Road Fugitive Dust	Paved road dust percentage updated per discussions with team
Construction: Architectural Coatings	Per client's data
Construction: Paving	Per client's data
Operations: Road Dust	Paved road dust percentage updated per discussions with team
Characteristics: Utility Information	Utility EFs updated per RPS
Operations: Water and Waste Water	20% reduction on 17.6 acre-feet of water
Operations: Hearths	Woodstoves - Policy 9.51 Zero out all amounts of Woodstoves; add number of wood fire places for each residential land use to the number of gas stoves

Appendix D
EDCAQMD Rule 223-1 Best Management Practices

Table 1. Construction and Other Earthmoving Activities

Source Category	Control Measure	EDCAQMD Guidance
Backfilling	A1. Stabilize backfill material when not actively handling; and A2. Stabilize backfill material during handling; and A3. Stabilize soil at completion of activity.	– Mix backfill soil with water prior to moving – Dedicate water truck or high capacity hose to backfilling equipment. – Empty loader bucket slowly so that no dust plumes are generated. – Minimize drop height from loader bucket.
Clearing and grubbing	B1. Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and B2. Stabilize soil during clearing and grubbing activities; and B3. Stabilize soil immediately after clearing and grubbing activities.	– Maintain live perennial vegetation where possible. – Apply water in sufficient quantity to prevent generation of dust plumes.
Clearing forms	C1. Use water spray to clear forms; or C2. Use sweeping and water spray to clear forms; or C3. Use vacuum system to clear forms.	– Use of high pressure air to clear forms may cause exceedance of Rule requirements.
Crushing	D1. Stabilize surface soils prior to operation of support equipment; and D2. Stabilize material after crushing.	– Follow permit conditions for crushing equipment. – Pre-water material prior to loading into crusher. – Monitor crusher emissions opacity. – Apply water to crushed material to prevent dust plumes.
Cut and fill	E1. Pre-water soils prior to cut and fill activities; and E2. Stabilize soil during and after cut and fill activities	– For large sites, pre-water with sprinklers or water trucks and allow time for penetration. – Use water as necessary to keep dust down.
Demolition – mechanical/manual	F1. Stabilize wind erodible surfaces to reduce dust; and F2. Stabilize surface soil where support equipment and vehicles will operate; and F3. Stabilize loose soil and demolition debris.	– Apply water in sufficient quantities to prevent the generation of visible dust plumes.

Source Category	Control Measure	EDCAQMD Guidance
Disturbed soil	G1. Stabilize disturbed soil throughout the construction site; and G2. Stabilize disturbed soil between structures	– Limit vehicular traffic and disturbances on soils where possible. – If interior block walls are planned, install as early as possible. – Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes.
Earth-moving activities	H1. Pre-apply water; and H2. Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 50 feet or beyond property line in any direction; and H3. Stabilize soils once earth-moving activities are complete.	– Grade each project phase separately, timed to coincide with construction phase. – Upwind fencing can prevent material movement on site. – Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes.
Importing/exporting of bulk materials	I1. Stabilize or adequately wet material while loading to reduce fugitive dust emissions; and I2. Maintain at least six inches of freeboard on haul vehicles traveling offsite; and I3. Stabilize or adequately wet material while transporting to reduce fugitive dust emissions; and I4. Stabilize material while unloading to reduce fugitive dust emissions.	– Use tarps or other suitable enclosures on haul trucks. – Comply with track-out prevention/ mitigation requirements. – Provide water while loading and unloading to reduce visible dust plumes.
Landscaping	J1. Stabilize soils, materials and slopes.	– Apply water to materials to stabilize. – Maintain materials in a crusted condition. – Maintain effective cover over materials – Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes – Hydroseed prior to rainy season.
Road shoulder maintenance	K1. Apply water to unpaved shoulders prior to clearing; and K2. Apply chemical dust suppressants and/or other appropriate material in accordance with DOT specifications to maintain a stabilized surface after completing road shoulder maintenance.	– Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs. – Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs.

Source Category	Control Measure	EDCAQMD Guidance
Screening	L1. Pre-water material prior to screening; and L2. Limit fugitive dust emissions to opacity and plume length standards; and L3. Stabilize material immediately after screening.	– Dedicate water truck or high capacity hose to screening operation. – Drop material through the screen slowly and minimize drop height. – Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point.
Staging areas	M1. Stabilize staging areas during use; and M2. Stabilize staging area soils at project completion.	– Limit size of staging area. – Limit vehicle speeds to prevent visible dust in excess of standards per 223-1.4.A. – Limit number and size of staging area entrances/exists.
Stockpiles/Bulk Material Handling	N1. Stabilize stockpiled materials. N2. Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	– Add or remove material from the downwind portion of the storage pile. – Maintain storage piles to avoid slides.
Traffic areas for construction activities	O1. Stabilize or maintain adequate moisture on all off-road traffic and parking areas; and O2. Stabilize or maintain adequate moisture on all haul routes; and O3. Direct construction traffic over established haul routes.	– Apply gravel/paving to all haul routes as soon as possible to all future roadway areas. – Barriers can be used to ensure vehicles are only used on established parking areas/haul routes.
Trenching	P1. Stabilize surface soils where trencher or excavator and support equipment will operate; and P2. Stabilize soils at the completion of trenching activities.	– Pre-watering of soils prior to trenching is an effective preventive measure. – Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment.
Truck loading	Q1. Pre-water material prior to loading; or Q2. Apply water as loader bucket is being emptied; and Q2. Freeboard must be 6 inches or greater (VCS 23114)	– Empty loader bucket such that no visible dust plumes are created. – Ensure that the loader bucket is close to the truck to minimize drop height while loading.
Turf Overseeding	R1. Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and R2. Cover haul vehicles prior to exiting the site.	– Haul waste material immediately off-site.

Source Category	Control Measure	EDCAQMD Guidance
Unpaved roads/ parking lots	S1. Stabilize soils to meet the applicable performance standards(Surface crusting); and S2. Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	– Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements.
Vacant land	T1. In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access.	– Installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures to prevent access to motor or off-road vehicles.

Table 2. Bulk Material Handling

Source Category	Control Actions
Handling Of Bulk Materials	A1. When handling bulk materials, apply water or chemical/organic stabilizers/ suppressants;
Storage of Bulk Materials	B1. When storing bulk materials, comply with the conditions for a stabilized surface; or B2. Cover bulk materials stored outdoors with tarps, plastic or other suitable material and anchor in such a manner that prevents the cover from being removed by wind action; or B3. Construct and maintain wind barriers with less than 50% porosity. If utilizing fences or wind barriers, apply water or chemical/organic stabilizers/suppressants; or B4. Utilize a 3-sided structure with a height at least equal to the height of the storage pile and with less than 50% porosity.
On-Site Transporting of Bulk Materials	C1. Limit vehicular speed while traveling on the work site; or C2. Load all haul trucks such that the freeboard is not less than six (6) inches when material is transported across any paved public access road; or C3. Apply water to the top of the load; or C4. Cover haul trucks with a tarp or other suitable cover.
Off-Site Transporting of Bulk Materials	D1. Clean the interior of the cargo compartment or cover the cargo compartment before the empty truck leaves the site; and D2. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides and/or tailgate; and D3. Load all haul trucks such that the freeboard is not less than six (6) inches when material is transported on any paved road, and apply water to the top of the load; or cover haul trucks with a tarp or other suitable cover.
Outdoor Transport Of Bulk Materials With A Chute Or Conveyor:	E1. Fully enclose the chute or conveyor; or E2. Operate water spray equipment; or E3. Wash separated or screened materials to remove conveyed materials having an aerodynamic diameter of 10 microns or less.

Table 3. Removal and Prevention of Trackout

Source Category	Control Actions
Removal of Trackout Material	A1. Manually sweeping and picking-up; or A2. Operating a rotary brush or broom accompanied or preceded by sufficient wetting; or A3. Operating a PM10-efficient street sweeper; or A4. Flushing with water, where the use of water will not result in adverse impacts on storm water drainage systems or violate any National Pollutant Discharge Elimination System permit program; and A5. The use of blower devices, or dry rotary brushes or dry brooms is expressly prohibited.
Frequency of Trackout Material Removal	B1. At the minimum trackout must be removed at the end of the day; and B2. Trackout must be immediately removed when it extends 50 feet or more from the nearest unpaved surface exit point of a site; and B3. On interior paved roads trackout must be removed at least once per workday.
Trackout Prevention for Large Operations or Sites with more than 150 vehicle trips/day.	C1. Installation of grizzlies, or similar devices designed to remove dirt/mud from tires; or C2. Installation of gravel pads; or C3. Paving of interior roads.

Table 4. Blasting Activities

Source Category	Control Measure	EDCAQMD Guidance
Site Preparation (drilling, setting charges, burial of charges)	A1. Reduce dust from drilling operation A2. Pre-wet blast area A3. Cover charges to minimize dust	– Control rate of drilling – Apply water fog – Place blast mats over charges – Place soil mounds over charges – Wet entire area prior to blasting
Blasting activities	B1. Dust cannot exceed 50 ft or cross the project property line	– Conduct blasting on calm days – Consider wind direction with respect to your property line, nearby residences and other receptors.
Post-Blasting Activities	C1. Follow Best Management Practice for all construction activities (Rule 223-1, Table 1)	

Table 5. Large Operations Dust Control

Source Category	Control Actions
Earth-moving: (except construction cutting and filling areas, and mining operations)	A1. Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Air Pollution Control Officer. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; or A2. For any earth-moving which is more than 50 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 50 feet in length in any direction. Visible emissions must not extend beyond property boundary.
Earth-moving: Construction fill areas	B1. Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Air Pollution Control Officer. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Air Pollution Control Officer complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four hour period of active operations; or B2. For any earth-moving which is more than 50 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 50 feet in length in any direction. Visible emissions must not extend beyond property boundary.
Earth-moving: Construction cut areas	C1. Conduct watering as necessary to prevent any visible emissions from extending beyond property boundary.
Disturbed surface areas: (except completed grading areas)	D1. Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	E1. Apply chemical stabilizers within five working days of grading completion; or E2. Take actions F1 or F3 specified for inactive disturbed surface areas.
Inactive disturbed surface areas	F1. Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; or F2. Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; or F3. Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; or F4. Utilize any combination of control actions F1, F2 and F3 such that, in total, these actions apply to all inactive disturbed surface areas. F5. Establishment and maintenance of surface crusting sufficient to satisfy the test in Section 223-1.10 F6. Approved mixture of tackifier and fiber mulch, applied per manufacturer's recommendation.

Source Category	Control Actions
Unpaved Roads	G1. Water all roads used for any vehicular traffic at least once per every two hours of active operations or as often as necessary; or G2. Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface; and G3. Restrict vehicle speeds where necessary ;
Open storage piles	H1. Apply chemical stabilizers; or H2. Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; or H3. Install temporary coverings; or H4. Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.
All Categories	I1. Any other control measures approved by the Air Pollution Control Officer as equivalent to the methods specified in Table 5 may be used.

Table 6. Large Operations Contingency Dust Control

Source Category	Control Actions
Earth-moving	A1. Cease all active operations except for dust mitigation activities; or A2. Apply water to soil not more than 15 minutes prior to moving such soil; and A3. Apply water during soil moving or disturbance operations.
Disturbed surface areas	B1. On the last day of active operations prior to a weekend, holiday or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; or B2. Apply chemical stabilizers prior to wind event; or B3. Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; or B4. Take the actions specified in Table 5, control action F3; or B5. Utilize any combination of control actions B1, B2 and B3B such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	C1. Apply chemical stabilizers prior to wind event; or C2. Apply water twice per hour during active operation; or C3. Stop all vehicular traffic, except for dust mitigation equipment.
Open storage piles	D1. Apply water twice per hour; or D2. Install temporary coverings.
Bulk Material Transport	E1. Cover all haul vehicles; or E2. Freeboard must be 6 inches or greater (VCS 23114)
All Categories	F1. Any other control measures approved by the Air Pollution Control Officer as equivalent to the methods specified in Table 6 may be used.

EL DORADO COUNTY AIR QUALITY MANAGEMENT DISTRICT

RULE 223-2 FUGITIVE DUST – ASBESTOS HAZARD MITIGATION
(Adopted 7/19/2005, Amended 10/18/2005)

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REFERENCE A - Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying and Surface Mining, Section 93105, Title 17, California Code of Regulations

REFERENCE B - Asbestos Airborne Toxic Control Measure For Surfacing Applications, Section 93106, Title 17, California Code of Regulations

5-2.1 GENERAL

A. **PURPOSE:** The purpose of this Rule is to reduce the amount of asbestos particulate matter entrained in the ambient air as a result of any construction or construction related activities, that disturbs or potentially disturbs naturally occurring asbestos by requiring actions to prevent, reduce or mitigate asbestos emissions.

B. **APPLICABILITY:** Unless one of the exemptions specified in Section 223-2.2 Exemptions applies, this Rule shall apply to **any construction or construction related activity** that:

1. is in excess of 20 cubic yards of graded material per project, or if required by the Air Pollution Control Officer **and**

2. meets **either** of the following criteria:

. Any portion of the area to be disturbed:
  . is located in a geographic ultramafic rock unit, **or**
  . has naturally-occurring asbestos, serpentine or ultramafic rock as determined by owner/operator, Professional Geologist or the Air Pollution Control Officer, **or**
  ii. is located within designated Naturally Occurring Asbestos Review Areas on the current El Dorado County Naturally Occurring Asbestos Review Area Map

. Naturally-occurring asbestos, serpentine, or ultramafic rock is discovered by the owner/operator, a Professional Geologist, or the Air Pollution Control Officer in the area to be disturbed after the start of any construction or construction related activity.

C. **ASBESTOS RELATED STATE OF CALIFORNIA REGULATIONS**

1. In addition to the requirements of this rule there are two State of California regulations for asbestos control that are applicable within El Dorado County and enforceable by the El Dorado County Air Quality Management District (EDCAQMD). These two asbestos control regulations are Attachments A and B to this rule.

Reference A: Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying and Surface Mining Operations (California Code of Regulations, Title 17, Section 93105)

. Reference B: Asbestos Airborne Toxic Control Measure (ATCM) for Surfacing Applications (California Code of Regulations, Title 17, Section 93106)

1. A person who is subject to the Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying and Surface Mining Operations (California Code of Regulations, Title 17, Section 93105) is required to comply with the following sections in addition to the requirements under the ATCM:

a. Section 223-2.4.A. regarding the visible emission standards.

b. Section 223-2.4.C: regarding the suspension of operations under high wind conditions.

c. Section 223-2.4.D: regarding the posting of Asbestos Warning signs.

d. Section 223-2.6.A and B: regarding trackout removal.

e. Section 223-2.6.D: regarding disposal of asbestiform containing soils removed by excavation.

e. Section 223-2.6.E: regarding 30-day time limit and other requirements for completion of post construction stabilization/mitigation.

223-2.2 EXEMPTION

A**. GENERAL:** Exemptions as defined in EDCAQMD Rule 223.2 A through F shall apply to this rule.

B. **GEOLOGIC EVALUATION**: The Air Pollution Control Officer may provide an exemption from this Rule for any property that meets at least one of the criteria in Section 223-2.1.B if a Professional Geologist has **conducted** a geologic evaluation of the property and determined that no serpentine or ultramafic rock, or asbestos, is likely to be found in the area to be disturbed. Before an exemption can be granted, the owner/operator must provide a copy of a report detailing the geologic evaluation to the Air Pollution Control Officer for his or her consideration.

1. At a minimum, the geologic evaluation must include:
   a. A general description of the property and the proposed use;
   b. A detailed site characterization which may include:
      . A physical site inspection;
      . Offsite geologic evaluation of adjacent property;
      . Evaluation of existing geological maps and studies of the site and surrounding area;
      . Development of geologic maps of the site and vicinity;
      . Identification and description of geologic units, rock and soil types, and features that could be related to the presence of ultramafic rocks, serpentine, or asbestos mineralization; and
      . A subsurface investigation to evaluate the nature and extent of geologic materials in the subsurface where excavation is planned; methods of subsurface investigation may include, but are not limited to borings, test pits, trenching, and geophysical surveys;
   c. A classification of rock types found must conform to the nomenclature based on the International Union of Geological Science system;
   d. A description of the sampling procedures used;
   e. A description of the analytical procedures used, which may include mineralogical analyses, petrographic analyses, chemical analyses, or analyses for asbestos content;
   f. An archive of collected rock samples for third party examination (to be kept for at least one year after the completion of the project); and
   g. A geologic evaluation report documenting observations, methods, data, and findings; the format and content of the report should follow the Guidelines for the Assessment of Naturally Occurring Asbestos issued by the California Geologic Survey.

2. The Air Pollution Control Officer may request any additional tests or other information needed to evaluate an application for exemption

3. The Air Pollution Control Officer shall grant or deny a request for an exemption within 30 days of the receipt of a complete application.

4. If the request for an exemption is denied, the Air Pollution Control Officer shall provide written reasons for the denial.

5. Expiration of the Geologic Exemption: If the owner/operator discovers any naturally-occurring asbestos, serpentine, or ultramafic rock in the area to be disturbed after the exemption is granted, then:

    a. The owner/operator must comply with the requirements of this Rule.
    b. The owner/operator must report the discovery of the naturally-occurring asbestos, serpentine or ultramafic rock to the Air Pollution Control Officer no later than the next business day.
    g. The exemption under Section 223-2.2.B shall expire and cease to be effective.

223-2.3 DEFINITIONS

In addition to the definitions of terms in EDCAQMD Rule 223 (General Requirements), the following definitions shall apply to this rule.

E. **ADEQUATELY WETTED:** sufficiently moistened with water to minimize the release of particulate matter into the ambient air.

F. **APPROVED ASBESTOS BULK TEST METHOD:** ARB Test Method 435 or an alternative asbestos bulk test method approved in writing by the Executive Officer of the California Air Resources Board.

G. **ARB:** the California Air Resources Board.

H. **ARB TEST METHOD 435:** the test method specified in title 17, California Code of Regulations, Section 94147.

I. **ASBESTOS:** asbestiforms of the following minerals: chrysotile (fibrous serpentine), crocidolite (fibrous riebeckite), amosite (fibrous cummingtonite--grunerite), asbestiform amphiboles (e.g. edenite, winchite and richterite), fibrous tremolite, fibrous actinolite, fibrous anthophyllite and tremolite/actinolite solution series of asbestiform minerals.

J. **ASBESTOS-CONTAINING MATERIAL:** any material that has asbestos content of 0.25 percent or greater by ARB test method 435.

K. **ASBESTOS CONTAINING WASTE or ACW:** asbestos containing waste managed at a landfill as authorized by Section 25143.7, chapter 6.5 of the California Health and Safety Code, which contains greater than (1%) friable asbestos by weight. Asbestos containing waste does not include waste contaminated with another hazardous waste as identified in chapter 11, division 4.5, Title 22, California Code of Regulations.

L. **ASBESTOS DUST MITIGATION PLAN:** a detailed written document specifying measures that would be implemented to minimize the emissions of asbestos-laden dust.

D. EL DORADO COUNTY NATURALLY OCCURING ASBESTOS REVIEW AREA MAP: a map created by adding mapping accuracy buffers to (1) faults and areas likely to contain asbestos as shown on the March 2000 Department of Mines and Geology “Areas More Likely to Contain Naturally-Occurring Asbestos in Western El Dorado County, California” map and (2) documented discovery sites containing at least 0.25% Asbestos. The most current map is provided on the EDCAQMD website and is available at the El Dorado County Surveyor’s office.

E. G**EOGRAPHIC ULTRAMAFIC ROCK UNIT:** a geographic area that is designated as an ultramafic rock unit or ultrabasic rock unit, including the unit boundary line, on any of the maps referenced in Appendix A of the Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying and Surface Mining, Section 93105, Title 17, California Code of Regulations

F. **GEOLOGIC EVALUATION:** an evaluation of a property by a Professional Geologist to determine the presence of various types of rocks, including but not limited to ultramafic rock, serpentinite, or other metamorphic derivatives of ultramafic rock.

G. **HEPA FILTER:** a High Efficiency Particulate Air filter used to remove particles less than one (1) micron in aerodynamic diameter that operates at removal efficiencies of 99.9 percent or greater.

H. **NATURALLY-OCCURRING ASBESTOS:** asbestos that has not been processed in an asbestos mill or is not asbestos mine tailings.

I. **PROFESSIONAL GEOLOGIST:** an individual who is currently licensed as a geologist with the State of California, Department of Consumer Affairs, Board of Geology and Geophysicists.

J. **REMOTE LOCATION:** any location that is at least one (1.0) mile from the location of a receptor.

K. **RECEPTOR:** includes, but is not limited to, any hospital, school, day care center, work site, business, residence, and permanent campground. The distance to the nearest receptor is to be measured from the outermost limit of the area to be disturbed or road surface, whichever is closer.

L. **SERPENTINE:** any form of the following hydrous magnesium silicate minerals: antigorite, lizardite, and chrysotile.

M. **SERPENTINITE:** a rock consisting almost entirely of serpentine, although small amounts of other minerals such as magnetite, chromite, talc, brucite, and tremolite-actinolite may also be present. "Serpentinite" is a metamorphic derivative of the ultramafic rocks, peridotite, pyroxenite, or dunite.

N. **ULTRABASIC ROCK:** ultramafic rock.

O. **ULTRAMAFIC ROCK:** an igneous rock composed of 90 percent or greater of one or a combination of the following iron/magnesium-rich, dark-colored silicate minerals: olivine, pyroxene or more rarely amphibole. For the purposes of this section, "ultramafic rock" includes the following rock types: dunite, pyroxenite and peridotite; and their metamorphic derivatives.

P. **VEGETATIVE COVER**: ground cover with sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter.

1-9.1 GENERAL REQUIREMENTS

A. Visible emissions shall not exceed the shade designated as No. 0 on the Ringelmann Chart, or 0% opacity as determined in accordance with US EPA Method 9, at 25 feet from the point-of-origin and at the property line. Visible emissions shall not exceed the shade designated as No. 1 on the Ringelmann Chart, or 20% opacity as determined in accordance with US EPA Method 9at the point-of-origin. Applicable Best Management Practices included in Table 1 through 4 of this Rule or

similar effective measures shall be utilized to comply with fugitive dust standards of this rule from each fugitive dust source type within the active operation.

A. Vehicle Speed Limitations and Posting of Speed Limit Signs

1. An owner/operator shall limit the speed of vehicles traveling within construction sites to a maximum of 15 miles per hour.

2 An owner/operator shall post speed limit signs limiting vehicle speed to maximum of 15 miles per hour that meet State and Federal Department of Transportation standards at each construction site's uncontrolled unpaved access/haul road entrance.

C. When sustained wind speeds result in visible dust emissions in excess of the standards in Section 223-2.4 A., despite the application of dust mitigation measures, grading and earthmoving operations except except for dust mitigation activities shall be suspended

D. Warning Signs shall be posted at the main entrance(s) to the project for the duration of soil disturbance activities. Signs shall be posted in letter of sufficient size as to be readily visible and legible. The following wording is recommended: "Warning. Soils in the area may contain naturally occurring asbestos. Asbestos is a known carcinogen. Report excessive fugitive dust to the contractor at (contractor phone number), NOA Hotline: 888-FYI4NOA or EDCAQMD: 530-621-6662"

I. Following operations and activities are expressly prohibited:

2. Rock crushing of asbestos-containing material;

2. Use of blower devices for any removal of asbestos-containing material.

223-2.5 ADMINISTRATIVE REQUIREMENTS

A. Asbestos Dust Mitigation Plan

1. An owner/operator shall submit an Asbestos Dust Mitigation Plan to the Air Pollution Control Officer prior to the start of any construction activity that is applicable to this rule. An updated Asbestos Dust Mitigation Plan must be submitted if the project is significantly modified, a new grading permit is issued, the owner/operator changes or at the request of the Air Pollution Control Officer.

   Construction activities shall not commence until the Air Pollution Control Officer has approved or conditionally approved the Asbestos Dust Mitigation Plan. An owner/operator shall provide written notification to the Air Pollution Control Officer at least 10 days prior to the commencement of earthmoving activities via fax or mail. Projects that are less than 1 acre shall provide notification to the Air Pollution Control Officer at least 48 hours prior to earthmoving activities via fax or mail. The requirement to submit an Asbestos Dust Mitigation Plan shall apply to all such activities conducted for residential and non-residential (e.g., commercial, industrial, or institutional) purposes or conducted by any governmental entity.

2. . An owner/operator may submit one Asbestos Dust Mitigation Plan covering multiple construction stages within same project, provided the plan includes description of activities and

control measures for all stages of the project. The Asbestos Dust Mitigation Plan shall specify the expected start and final completion date of each project.

3. Asbestos Dust Mitigation Plan shall describe all dust mitigation measures to be implemented before, during and after any dust generating activity.

4. Asbestos Dust Mitigation Plan shall contain all the information described in Section 223-2.5.B. The Air Pollution Control Officer shall approve, disapprove or conditionally approve the Asbestos Dust Mitigation Plan within 30 days of plan submittal.

5. An owner/operator shall retain a copy of an approved Asbestos Dust Mitigation Plan at the project site. The approved Asbestos Dust Mitigation Plan shall remain valid until the termination of all dust generating activities. Failure to comply with the provisions of an approved Asbestos Dust Mitigation Plan is deemed to be a violation of this rule. Regardless of whether an approved Asbestos Dust Mitigation Plan is in place or not, or even when the owner/operator responsible for the plan is complying with an approved Asbestos Dust Mitigation Plan, the owner/operator shall comply also with all requirements of this Rule at all times.

B. An Asbestos Dust Mitigation Plan shall contain all of the following information:

0. Name(s), address(s), and phone number(s) of person(s) and owner(s)/operator(s) responsible for the preparation, submittal, and implementation of the Asbestos Dust Mitigation Plan and responsible for the dust generating operation and the application of dust control measures.

0. A plot plan which shows the type and location of each project.

0. The total area of land surface to be disturbed and total area in acres of the entire project site.

0. The expected start and completion dates of dust generating and soil disturbance activities to be performed on the site.

0. The actual and potential sources of fugitive dust emissions on the site and the location of bulk material handling and storage areas, paved and unpaved roads; entrances and exits where carryout/trackout may occur; and traffic areas.

0. Best Management Practice (Rule 223-2, Table 1 through 4) or other effective measures for:
   - Construction
   - Bulk Material Handling
   - Carryout and Trackout Management
   - Blasting Activities

0. Large Operations must include Dust Control Measures (Rule 223-2, Table 5 and 6).

0. If chemical dust suppressants are to be applied, the following information must be included: product specifications; manufacturer's usage instructions (method, frequency, and intensity of application); type, number, and capacity of application equipment; and information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application.

0. Specific surface treatment(s) and/or control measures utilized to control material carryout, trackout, and sedimentation where unpaved and/or access points join paved roads.

10. Frequency of reporting: The plan shall state how often the items specified in Section 223-2.9. and any other items identified in the plan, will be reported to the EDCAQMD.

223-2.6 REQUIREMENTS FOR TRACKOUT MANAGEMENT, EXCAVATED SOIL MANAGEMENT AND POST-CONSTRUCTION STABILIZATION

A. An owner/operator shall prevent or cleanup carryout and trackout as specified in Section 223-2.6.A. The use of blower devices, or dry rotary brushes or brooms, for removal of carryout and trackout on public roads is expressly prohibited. The removal of carryout and trackout from paved public roads does not exempt an owner/operator from obtaining state or local agency permits which may be required for the cleanup of mud and dirt on paved public roads.

1. Owners/operators shall prevent carryout and trackout, or remove all visible carryout and trackout immediately.

2. Cleanup of carryout and trackout shall be accomplished by:
   a. Wet sweeping and picking-up; or
   b. Operating a HEPA filter equipped vacuum device; or
   c. Flushing with water, if curbs or gutters are not present, and where the use of water will not result in a source of trackout material or result in adverse impacts on storm water drainage systems or violate any National Pollutant Discharge Elimination System permit program.

E. An owner/operator of any site with 150 or more vehicle trips per day, or 20 or more vehicle trips per day by vehicles with three or more axles shall in addition to the requirements in Section 223-2.6.A, take the following preventative actions for carryout and trackout:

1. Installing and maintaining a trackout control device (grizzlies, gravel pads or paved surfaces) designed and maintained to control trackout at all access points to paved public roads; or:

2. Utilizing a carryout and trackout prevention procedure which has been demonstrated to the satisfaction of the Air Pollution Control Officer as achieving an equivalent or greater level of control.

F. Control for disturbed surface areas and storage piles, shall comply with all applicable requirements of this Rule.

G. Disposal of asbestiform containing soils removed by excavation:

1. Placing excavated soils into fills constructed elsewhere on the project.
   a. The location(s) of such removals and the placement quantities and locations shall be documented.
   b. Fills with a naturally occurring asbestos content equal to or greater than 1.0% by ARB Test Method 435, or when visually evident fibrous materials likely to be asbestos are present, located in residential landscaping areas shall be covered by at least two feet (24 inches) of non-asbestiform containing material or by concrete or asphalt paving.

2. It is the owner/operator responsibility that final destination (usage or disposal) and transports of any excavated soils from the project is in conducted in full compliance with pertinent federal,

state and local rules and regulations including CA Title 17, Section 93106, Asbestos Airborne Toxic Control Measure for Surfacing Applications.

3. For any soils transported off-site the following information must be documented, retained for a period of at least 3 years, and provided to the Air Pollution Control Officer upon request:
   e. Project location
   f. Laboratory results for any asbestos soil testing done at the project location
   g. Date(s) of off-site transport(s) of excavated soils
   h. Location(s) where excavated soils were transported to
   i. Total quantity transported to each location
   j. Intended usage (fill, surface application), if the final destination is other than Class II or Class III landfill disposal facility.

H. Control for off-site transport. The owner/operator shall ensure that no trucks are allowed to transport excavated material off-site unless:

1. Trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments; and

2. Loads are adequately wetted; and
   a. Covered with tarps; or
   b. Loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than six inches from the top and that no point of the load extends above the top of the cargo compartment.

5. If excavated material is classified as a hazardous waste/material, off-site transport must comply with pertinent State and Federal rules and regulations.

I. Post construction stabilization of disturbed areas. For multiple phase projects, the property owner shall be responsible for ensuring that the soil be stabilized following each phase of the project using one of the methods listed below or by any other method approved by the APCO. Upon completion of all phases of the project, but no later than 30 days following the end of soil disturbing activities, all disturbed surfaces with naturally occurring asbestos content of equal to or greater than 0.25% by ARB test method 435 shall be stabilized using one or more of the following methods:

1. Establishment of a vegetative cover;

2. Placement of non-asbestos containing material on disturbed soil areas shall be as follows:
   a. At least three (3.0) inches in residential and nonresidential areas;
   b. A total of at least twelve (12) inches or the maximum depth of irrigation improvements, whichever is higher, in residential landscaping areas with a naturally occurring asbestos content greater than 0.25% by ARB Test Method 435, or when visually evident fibrous materials likely to be asbestos are present;

3. Paving, building foundations, concrete flatwork or retaining walls

223-2.7. ADDITIONAL REQUIREMENTS FOR LARGE OPERATIONS

E. Any person who conducts or authorizes the conducting of a large operation subject to this Rule shall implement the applicable actions specified in Table 5 of this Rule at all times and shall implement the

applicable actions specified in Table 6 of this Rule when the applicable performance standards can not be met through use of Table 5 actions; and shall:

0. Submit a Large Operation Notification to the Air Pollution Control Officer within 7 days of qualifying as a large operation;

0. Maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the Air Pollution Control Officer upon request;

0. Identify a dust control supervisor that:
   a. is employed by or contracted with the property owner or developer;
   b. is on the site or available on-site within 30 minutes during working hours;
   c. has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements.

223-2.8 AIR MONITORING FOR ASBESTOS

A. Pursuant to the requirements of California Health and Safety Code Section 41511:

1. Air monitoring may be required by the Air Pollution Control Officer.

2. The Air Pollution Control Officer may require revisions to the asbestos dust mitigation plan on the basis of the results of the air monitoring.

. Air monitoring for asbestos (if required by the Air Pollution Control Officer).

0. If required by the Air Pollution Control Officer, the Asbestos Dust Mitigation Plan shall include an air-monitoring component.

1. The air monitoring component shall specify the following:
   . Type of air sampling device(s);
   . Siting of air sampling device(s);
   . Sampling duration and frequency; and
   . Analytical method
   . Frequency and detail of analytical data submittal

223-2.9 RECORDKEEPING AND REPORTING REQUIREMENTS

A. Recordkeeping Requirements: The owner shall retain all of the following records for at least ten (10) years following the completion of the construction project:

0. The results of any air monitoring conducted any time during the project.

0. The documentation for any geologic evaluation conducted on the property for the purposes of obtaining an exemption, except the archive of collected samples which may be discarded at the expiration of the exemption or one (1) year after the exemption is granted whichever is less.

0. The results of any asbestos bulk sampling that meets any of the following conditions:

a. The asbestos bulk sampling was conducted by the owner/operator to document the applicability of or compliance with this section.
b. The asbestos bulk sampling was done at the request of the Air Pollution Control Officer or the El Dorado Building Department or Department of Transportation (DOT).

7. The placement quantities and both removal and placement location of asbestiform containing soils removed by excavation as required in 223-2.6.D.

8. Records and reports for the project, as defined in 223-2.9.A, shall be provided upon request with disclosures in real estate transactions concerning the project or property.

B. Reporting Requirements: The owner/operator of any grading or construction operation subject to this section shall submit the following to the EDCAQMD:

1. The results of any air monitoring conducted at the request of the Air Pollution Control Officer.

2. The laboratory results of any asbestos bulk sampling or testing.

3. The areas where asbestos was identified, removed, and placed, onsite or offsite shall be described upon completion of the project.

4. Any public complaints received by the contractor during the project shall be reported as requested by the Air Pollution Control Officer.

223-2.10 TEST METHODS

E. Ultramafic Rock: The ultramafic rock composition of any material shall be determined using standard analysis techniques including, but not limited to, color index assessment, microscopic examination, petrographic analysis or rock thin sections, or chemical analysis techniques, such as X-ray fluorescence spectrometry or inductively coupled plasma analysis.

F. Bulk Sampling Methods: ARB Test Method 435, or an alternative asbestos bulk test method approved in writing by the Executive Officer of the California Air Resources Board, shall be used to determine the asbestos content of a bulk sample. For the purposes of determining compliance with this section, references in ARB Test Method 435 to "serpentine aggregate" shall mean "gravel" or other "bulk materials" to be tested for asbestos content.

G. Surface Crusting: “Measurement of the stability of surface crusting on horizontal surfaces” shall be as follows:

1. Where a visible crust exists, drop a steel ball with a diameter of 15.9 millimeters (0.625 inches) and a mass ranging from 16 to 17 grams from a distance of 30 centimeters (one foot) directly above at a 90 degree angle (perpendicular) to the ground surface. If blowsand (thin deposits of loose grains covering less than 50 percent of the surface that have not originated from the surface being tested) is present, clear the blowsand from the surfaces to be tested before dropping the steel ball.

2. A sufficient crust is determined to exist if, when the ball is dropped according to Section 223-2.10.C.1 the ball does not sink into the surface so that it is partially or fully surrounded by loose

grains and, upon removing the ball, the surface on which it was dropped has not been pulverized so that loose grains are visible.

0. Drop the ball three times each in three representative test areas within a survey area measuring 1 foot by 1 foot that represents a random portion of the surface being evaluated. The test area shall be deemed to have passed if at least two of the three times the ball was dropped, the results met the criteria in Section 223-2.10.C.1. If all three test areas pass, the area shall be deemed to be "sufficiently crusted".

C. Analysis of Air Samples: Analysis of all air samples shall follow the analytical method specified by the United States Environmental Protection Agency, Asbestos Hazard Emergency Response Act (AHERA) criteria for asbestos (40 CFR, Part 763 Subpart E, Appendix A, adopted October 30, 1987), with the following exceptions:

0. The analytical sensitivity shall be 0.001 structures per cubic centimeter (0.001 s/cc); and

0. All asbestos structures with an aspect ratio greater than three to one (3:1) shall be counted irrespective of length.

2. The results of the analysis of air samples shall be reported as transmission electron microscopy (TEM) asbestos structures per cubic centimeter (s/cc).

D. Adequately Wetted: Field determination of "adequately wetted" shall be as follows:

0. If the district-approved asbestos dust mitigation plan has specified a percent moisture content for specific materials the determination shall be as specified in the district-approved asbestos dust mitigation plan; or

0. If no moisture threshold is specified in a district-approved asbestos dust mitigation plan, a sample of at least one (1) quart in volume shall be taken from the top three (3) inches of a road, or bare area or from the surface of a stockpile. The sample shall be poured out from a height of four (4) feet onto a clean hard surface. The material shall be considered to be adequately wetted if there is no observable dust emitted when the material is dropped.

RULE 223-2 TABLE 1
BEST MANAGEMENT PRACTICE FOR ASBESTOS DUST MITIGATION
(Construction And Other Earthmoving Activities)

Source Category	Control Measure	Guidance
Backfilling	A1 Stabilize backfill material when not actively handling; and A2 Stabilize backfill material during handling; and A3 Stabilize soil at completion of activity. .	□ Mix backfill soil with water prior to moving □ Dedicate water truck or high capacity hose to backfilling equipment. □ Empty loader bucket slowly so that no dust plumes are generated. □ Minimize drop height from loader bucket.
Clearing and grubbing	B1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and B2 Stabilize soil during clearing and grubbing activities; and B3 Stabilize soil immediately after clearing and grubbing activities.	□ Maintain live perennial vegetation where possible. □ Apply water in sufficient quantity to prevent generation of visible dust.
Clearing forms	C1 Use water spray to clear forms; or C2 Use sweeping and water spray to clear forms; or C3 Use vacuum system to clear forms.	□ Use of high pressure air to clear forms may cause exceedance of Rule requirements.
Crushing	D1 Crushing asbestos containing material is expressly prohibited..	
Cut and fill	E1 Pre-water soils prior to cut and fill activities; and E2 Stabilize soil during and after cut and fill activities.	□ For large sites, pre-water with sprinklers or water trucks and allow time for penetration. □ Use water as necessary to keep dust down.
Demolition – mechanical/manual	F1 Stabilize wind erodible surfaces to reduce dust; and F2 Stabilize surface soil where support equipment and vehicles will operate; and F3 Stabilize loose soil and demolition debris.	□ Apply water in sufficient quantities to prevent the generation of visible dust.
Disturbed soil	G1 Stabilize disturbed soil throughout the construction site; and G2 Stabilize disturbed soil between structures	□ Limit vehicular traffic and disturbances on soils where possible. □ If interior block walls are planned, install as early as possible. □ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes.

RULE 223-2 TABLE 1
BEST MANAGEMENT PRACTICE FOR ASBESTOS DUST MITIGATION
(Construction And Other Earthmoving Activities)

Source Category	Control Measure	Guidance
Earth-moving activities	H1 Pre-apply water; and H2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 25 feet or beyond property line in any direction; and H3 Stabilize soils once earth-moving activities are complete.	Grade each project phase separately, timed to coincide with construction phase. Upwind fencing can prevent material movement on site. Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes. Suspend operations when winds generate visible dust emissions despite control measures
Importing/exporting of bulk materials	I1 Stabilize or adequately wet material while loading to reduce fugitive dust emissions; and I2 Maintain at least six inches of freeboard on haul vehicles traveling off-site; and I3 Stabilize or adequately wet material while transporting to reduce fugitive dust emissions; and I4 Stabilize material while unloading to reduce fugitive dust emissions.	Use tarps or other suitable enclosures on haul trucks. Comply with track-out prevention/ mitigation requirements. Provide water while loading and unloading to reduce visible dust plumes. Maintain trucks and cargo compartments, to prevent any spillage of material. If excavated material is classified as a hazardous waste/material, off-site transport must comply with pertinent State and Federal rules and regulations.
Landscaping	J1 Stabilize soils, materials and slopes.	Apply water to materials to stabilize. Maintain materials in a crusted condition. Maintain effective cover over materials Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes Hydroseed prior to rainy season.
Road shoulder maintenance	K1 Apply water to unpaved shoulders prior to clearing; and K2 Apply chemical dust suppressants and/or other appropriate material in accordance with DOT specifications to maintain a stabilized surface after completing road shoulder maintenance.	Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs. Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs.
Staging areas	M1 Stabilize staging areas during use; and M2 Stabilize staging area soils at project completion.	Limit size of staging area. Limit vehicle speeds to 15 miles per hour. Limit number and size of staging area entrances/exists.

RULE 223-2 TABLE 1
BEST MANAGEMENT PRACTICE FOR ASBESTOS DUST MITIGATION
(Construction And Other Earthmoving Activities)

Source Category	Control Measure	Guidance
Stockpiles/Bulk Material Handling	N1 Stabilize stockpiled materials. N2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	Add or remove material from the downwind portion of the storage pile. Maintain storage piles to avoid slides.
Traffic areas for construction activities	O1 Stabilize or maintain adequate moisture on all off-road traffic and parking areas; and O2 Stabilize or maintain adequate moisture on all haul routes; and O3 Direct construction traffic over established haul routes.	Apply gravel/paving to all haul routes as soon as possible to all future roadway areas. Barriers can be used to ensure vehicles are only used on established parking areas/haul routes.
Trenching	P1 Stabilize surface soils where trencher or excavator and support equipment will operate; and P2 Stabilize soils at the completion of trenching activities.	Pre-watering of soils prior to trenching is an effective preventive measure. Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment.
Truck loading	Q1 Material must be adequately wet prior to loading; and Q2 Freeboard must be 6 inches or greater (VCS 23114)	Empty loader bucket such that no visible dust plumes are created. Ensure that the loader bucket is close to the truck to minimize drop height while loading.
Unpaved roads/parking lots	S1 Stabilize soils to meet the applicable performance standards (Surface Crusting); and S2 Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements.

RULE 223-2 TABLE 1
BEST MANAGEMENT PRACTICE FOR ASBESTOS DUST MITIGATION
(Construction And Other Earthmoving Activities)

Source Category	Control Measure	Guidance
Vacant land	T1 In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access.	Installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures to prevent access to motor or off-road vehicles.
Onsite Disposal of asbestiform containing soils	U1 If possible, place excavated soils into fills constructed elsewhere on the project	Fills with NOA content equal to or greater than 1.0%, or when visually evident fibrous materials likely to be asbestos are present, in residential landscaping areas must be covered by at least 24 inches of clean fill Document location and quantities of fills
Offsite disposal of asbestiform containing soils	V1 Management and disposition of excavated soils transported offsite must be in accordance with federal, state and local regulations.	For excavated soils transported offsite, information per Rule 223-2.6.D.3. must be documented by owner/operator and retained for a period of 3 years.
Post Construction Stabilization of Disturbed Areas	W1 Must be completed no later than 30 days following completion of the project.	Establishment of vegetative cover; or Placement of at least 3 inches of clean fill, Placement of a total of at least 12 inches, or maximum depth of irrigation improvements, whichever is higher, of clean fill in residential landscaping areas with NOA greater than 0.25%; or Paving, Foundations, Retaining Walls; or Other measures as approved by APCO.
Signage	X1 Post Warning Signs at the main entrance to the project for the duration of soil disturbance activities	Signs to be in compliance with current OSHA requirements Proposition 65 (H&S Code 25249.5-25249.13) may apply

RULE 223-2 TABLE 2
BEST MANAGEMENT PRACTICE FOR ASBESTOS DUST MITIGATION
(Bulk Material Handling)

Source Category	**Control Actions**
Handling Of Bulk Materials	A1 When handling bulk materials, apply water or chemical/organic stabilizers/ suppressants;
Storage of Bulk Materials	B1 When storing bulk materials, comply with the conditions for a stabilized surface; or B2 Cover bulk materials stored outdoors with tarps, plastic or other suitable material and anchor in such a manner that prevents the cover from being removed by wind action; or B3 Construct and maintain wind barriers with less than 50% porosity. If utilizing fences or wind barriers, apply water or chemical/organic stabilizers/suppressants; or B4 Utilize a 3-sided structure with a height at least equal to the height of the storage pile and with less than 50% porosity.
On-Site Transporting of Bulk Materials	C1 Limit vehicular speed while traveling on the work site; or C2 Load all haul trucks such that the freeboard is not less than six (6) inches when material is transported across any paved public access road; or C3 Apply water to the top of the load; or C4 Cover haul trucks with a tarp or other suitable cover.
Off-Site Transporting of Bulk Materials	D1 Clean the interior of the cargo compartment or cover the cargo compartment before the empty truck leaves the site; and D2 Material must be adequately wet prior to loading; and D3 Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides and/or tailgate; and D4 Load all haul trucks such that the freeboard is not less than six (6) inches when material is transported on any paved road, and apply water to the top of the load; or cover haul trucks with a tarp or other suitable cover. D5 If excavated material is classified as a hazardous waste/material, off-site transport must comply with pertinent State and Federal rules and regulations.
Outdoor Transport Of Bulk Materials With A Chute Or Conveyor:	E1 Fully enclose the chute or conveyor; or E2 Operate water spray equipment; or E3 Wash separated or screened materials to remove conveyed materials having an aerodynamic diameter of 10 microns or less.

RULE 223-2 TABLE 3
BEST MANAGEMENT PRACTICE FOR ASBESTOS DUST MITIGATION
(Removal and Prevention of Trackout)

Source Category	**Control Actions**
Removal of Trackout Material	A1 Manually wet sweeping and picking-up; or A2 Operating HEPA filter equipped vacuum device; or A3 Flushing with water, where the use of water will not result in adverse impacts on storm water drainage systems or violate any National Pollutant Discharge Elimination System permit program; and A4 The use of blower devices, or dry rotary brushes or dry brooms is expressly prohibited.
Frequency of Trackout Material Removal	B1 Visible trackout must be immediately removed from paved public roads; and B4 On interior paved roads trackout must be removed at least once per workday.
Trackout Prevention for Large Operations or Sites with more than 150 vehicle trips/day.	C1 Installation of grizzlies, or similar devices designed to remove dirt/mud from tires; or C2 Installation of gravel pad; or C3 Paving of interior roads.

RULE 223-2 TABLE 4
BEST MANAGEMENT PRACTICE FOR ASBESTOS DUST MITIGATION
(Blasting Activities)

Source Category	Control Measure	Guidance
Site Preparation (drilling, setting charges, burial of charges)	A1 Reduce dust from drilling operation A2 Pre-wet blast area A3 Cover charges to minimize dust	□ Control rate of drilling □ Apply water fog □ Place blast mats over charges □ Place soil mounds over charges □ Wet entire area prior to blasting
Blasting activities	B1 Dust cannot exceed 25 ft or cross the project property line	□ Conduct blasting on calm days □ Consider wind direction with respect to your property line, nearby residences and other receptors.
Post-Blasting Activities	C1 Follow Best Management Practices for all construction activities (Table 223-2, Table 1)	

RULE 223-2 TABLE 5
DUST CONTROL MEASURES FOR LARGE OPERATIONS

Source Category	Control Actions
Earth-moving (except construction cutting and filling areas, and mining operations)	A1 Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Air Pollution Control Officer. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; or A2 For any earth-moving which is more than 25 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 25 feet in length in any direction. Visible emissions must not extend beyond property boundary.
Earth-moving: Construction fill areas:	B1 Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Air Pollution Control Officer. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Air Pollution Control Officer complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four hour period of active operations. B2 For any earth-moving which is more than 25 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 25 feet in length in any direction. Visible emissions must not extend beyond property boundary.
Earth-moving: Construction cut areas	C1 Conduct watering as necessary to prevent any visible emissions from extending beyond property boundary.
Disturbed surface areas: (except completed grading areas)	D1 Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	E1 Apply chemical stabilizers within five working days of grading completion; or E2 Take actions F1 or F3 specified for inactive disturbed surface areas.

RULE 223-2 TABLE 5
DUST CONTROL MEASURES FOR LARGE OPERATIONS

Source Category	Control Actions
Inactive disturbed surface areas	F1 Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; or F2 Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; or F3 Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; or F4 Utilize any combination of control actions F1, F2 and F3 such that, in total, these actions apply to all inactive disturbed surface areas. F5 Establishment and maintenance of surface crusting sufficient to satisfy the test in Section 223-2.10.C F6 Approved mixture of tackifier and fiber mulch, applied per manufacturer's recommendation.
Unpaved Roads	G1 Water all roads used for any vehicular traffic at least once per every two hours of active operations or as often as necessary; or G2 Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface; and G3 Restrict vehicle speeds to 15 miles per hour;
Open storage piles	H1 Apply chemical stabilizers; or H2 Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; or H3 Install temporary coverings; or H4 Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.
All Categories	I1 Any other control measures approved by the Air Pollution Control Officer as equivalent to the methods specified in Table 5 may be used.

RULE 223-2 TABLE 6
CONTINGENCY DUST CONTROL MEASURES FOR LARGE OPERATIONS

Source Category	Control Actions
Earth-moving	A1 Cease all active operations except for dust mitigation activities; or A2 Apply water to soil not more than 15 minutes prior to moving such soil; and A3 Apply water during soil moving or disturbance operations.
Disturbed surface areas	B1 On the last day of active operations prior to a weekend, holiday or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; or B2 Apply chemical stabilizers prior to wind event; or B3 Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; or B4 Take the actions specified in Table 5, control action F3; or B5 Utilize any combination of control actions B1, B2 and B3B such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	C1 Apply chemical stabilizers prior to wind event; or C2 Apply water twice per hour during active operation; or C3 Stop all vehicular traffic, except for dust mitigation equipment.
Open storage piles	D1 Apply water twice per hour; or D2 Install temporary coverings.
Bulk Material Transport	E1 Cover all haul vehicles; or E2 Freeboard must be 6 inches or greater (VCS 23114)
All Categories	F1 Any other control measures approved by the Air Pollution Control Officer as equivalent to the methods specified in Table 6 may be used.

Appendix E
Plant Species

Plant Species Observed in the Project Area
(April 6 and 13, May 3, 2005; May 9, June 7, June 12–14, and July 2, 2012)

Scientific Name	Common Name
ADOXACEAE	MUSKROOT FAMILY
Sambucus nigra ssp. *caerulea*	Blue elderberry
AGAVACEAE	AGAVE FAMILY
Chlorogalum angustifolium	Soap plant
Chlorogalum pomeridianum	Soap plant
ALISMATACEAE	WATER-PLANTAIN FAMILY
Sagittaria latifolia	Broad-leaf arrowhead
ALLIACEAE	ONION FAMILY
Allium hyalinum	Wild onion
ANACARDIACEAE	SUMAC FAMILY
Toxicodendron diversilobum	Poison oak
APIACEAE	CARROT FAMILY
Anthriscus caucalis	Bur chevril
Conium maculatum†*	Poison-hemlock
*Daucus carota**	Queen Anne's lace
Daucus pusillus	American wild carrot
Eryngium vaseyi	Vasey's coyote-thistle
Lomatium caruifolium var. *denticulatum*	Caraway-leaved lomatium
Lomatium macrocarpum	Big seed biscuitroot
Lomatium marginatum var. *marginatum*	Butte desertparsley
Sanicula bipinnata	Poison sanicle
Sanicula bipinnatifida	Pacific snakeroot
Sanicula crassicaulis	Sanicle
*Scandix pecten-veneris**	Venus' needle
Torilis arvensis†*	Torilis (hedge parsley)
APOCYNACEAE	DOGBANE FAMILY
Asclepias cordifolia	Purple milkweed
Asclepias fascicularis	Narrow-leaf milkweed
Asclepias speciosa	Showy milkweed
ASTERACEAE	SUNFLOWER FAMILY
Achillea millefolium	Common yarrow
Agoseris grandiflora	Giant mountain dandelion
Agoseris heterophylla	Mountain dandelion
Ambrosia psilostachya	Ragweed
Artemisia douglasiana	Mugwort
Baccharis pilularis	Coyote bush
Carduus pycnocephalus†*	Italian thistle

Scientific Name	Common Name
Centaurea calcitrapa†*	Purple star thislte
Centaurea melitensis†*	Tocalote
Centaurea solstitialis†*	Yellow star-thistle
Chondrilla juncea†*	Skeleton weed
*Cichorium intybus**	Chicory
Cirsium vulgare†*	Bull thistle
Ericameria arborescens	Golden-fleece
Erigeron canadensis	Canada horseweed
Erigeron divergens	Fleabane daisy
Erigeron philadephicus	Philadelphia fleabane
Eriophyllum lanatum	Common woolly sunflower
Euthamia occidentalis	Western goldenrod
Grindelia camporum	Gumplant
Helenium puberulum	Sneezeweed
Hemizonella minima	Opposite-leaved tarweed
Holocarpha virgata	Sticky tarweed
Hypochaeris glabra†*	Smooth cat's-ear
Hypochaeris radicata†*	Perennial cat's-ear
*Lactuca serriola**	Prickly lettuce
Lasthenia californica	California goldfields
*Leontodon saxatilis**	Hairy hawkbit
Logfia filaginoides	California cotton rose
*Logfia gallica**	Herba impia
Madia anomala	White tarweed
Madia elegans	Common madia
Madia exigua	Little tarweed
*Matricaria discoidea**	Pineapple weed
Micropus californicus	Cotton top
Psilocarphus tenellus	Slender woolly marbles
Pseudognaphalium californicum	Everlasting
*Pseudognaphalium luteoalbum**	Common cudweed
Senecio aronicoides	Butterweed
Senecio vulgaris	Groundsel
Silybum marianum†*	Milk thistle
Solidago vultina ssp. *californica*	California goldenrod
*Sonchus asper**	Prickly sowthistle
*Sonchus oleraceus**	Common sowthistle
Symphyotrichum chilense	Common California aster
Symphyotrichum foliaceum	Leafybract aster
*Taraxacum officinale**	Dandelion
*Tragopogon dubius**	Goat's beard
Wyethia angustifolia	Narrow leaf mule ears
Wyethia bolanderi	Bolander's mule ears
Wyethia helenioides	Gray mule ears
Wyethia mollis	Woolly mule ears
Xanthium spinosum	Spiny cocklebur

Scientific Name	Common Name
Xanthium strumarium	Rough cocklebur
AZOLLACEAE	MOSQUITO FERN FAMILY
Azolla filiculoides	Mosquito fern
BETULACEAE	BIRCH FAMILY
Alnus rhombifolia	White alder
BORAGINACEAE	BORAGE FAMILY
Amsinckia menziesii	Rancher's fireweed
Cryptantha circumscissa	Western forget-me-not
Cryptantha muricata	Prickly popcorn flower
Emmenanthe penduliflora	Whispering bells
Eriodictyon californicum	Yerba santa
Phacelia cirutaria	Caterpillar phacelia
Phacelia hastata	Phacelia
Phacelia tanacetifolia	Lacy phacelia
Plagiobothrys nothofulvus	Rusty popcorn flower
Plagiobothrys stipitatus	Slender popcorn flower
BRASSICACEAE	MUSTARD FAMILY
Brassica nigra†*	Black mustard
Hirschfeldia incana†*	Shortpod mustard
*Lepidium didymum**	Wart-cress
Lepidium latifolium†*	Broad-leaf pepper grass
Brassica nigra†*	Black mustard
*Camelina microcarpa**	False flax
Nasturtium officinale	Water cress
Rorippa curvipes	Bluntleaf yellow cress
Rorippa curvisiliqua	Yellow cress
Sinapis arvensis†*	Charlock mustard
Thysanocarpus radians	Fringe pod
CAPRIFOLIACEAE	HONEYSUCKEL FAMILY
Lonicera hispidula	Pink honeysuckle
Lonicera interrupta	Chaparral honeysuckle
Symphoricarpos albus var. *laevigatus*	Snowberry
CARYOPHYLLACEAE	PINK FAMILY
*Cerastium glomeratum**	Mouse-ear chickweed
*Petrorhagia dubia**	Grass pink
*Silene gallica**	Catchfly
*Spergularia rubra**	Purple sandspurry
*Stellaria media**	Common chickweed
CHENOPODIACEAE	GOOSEFOOT FAMILY
*Chenopodium album**	Lamb's quarters
Dysphania ambosioides	Mexican tea
CONVOLVULACEAE	MORNING-GLORY FAMILY
Calystegia occidentalis	Western morning glory
Convolvulus arvensis†*	Bindweed

Scientific Name	Common Name
Cuscuta sp.†	Dodder
CRASSULACEAE	STONECROP FAMILY
Crassula connate	Pygmy weed
Sedum obtusatum	Stonecrop
CUCURBITACEAE	GOURD FAMILY
Marah watsonii	Wild cucumber
CUPRESSACEAE	CYPRESS FAMILY
Sequoia sempervirens	Coast redwood
CYPERACEAE	SEDGE FAMILY
Carex sp.	Sedge
Cyperus eragrostis	Tall flatsedge
Cyperus esculentus†	Yellow nut grass
Eleocharis acicularis	Least spikerush
Eleocharis macrostachya	Creeping spikerush
Eleocharis parishii	Parish's spikerush
Scirpus microcarpus	Small fruited bulrush
EQUISETACEAE	HORSETAIL FAMILY
Equisetum arvense	Field horsetail
ERICACEAE	HEATH FAMILY
Arctostaphylos manzanita	Manzanita
Arctostaphylos patula	Greenleaf manzanita
Arctostaphylos viscida	Manzanita
EUPHORBIACEAE	SPURGE FAMILY
Chamaesyce ocellata ssp. *ocellata*	Contura Creek sandmat
Croton setigerus	Turkey mullein
Euphorbia oblongata†*	Eggleaf spurge
*Euphorbia peplus**	Petty spurge
Euphorbia spathulata	Spurge
FABACEAE	LEGUME FAMILY
Astragalus gambelianus	Locoweed
Acmispon americanus	Spanish clover
Acmispon glaber	Deerweed
Acmispon nevadensis	Sierra Nevada lotus
Acmispon wrangelianus	Chilean trefoil
Bidens frondosa	Devil's beggar-ticks
Cercis occidentalis	Western redbud
Hosackia crassifolia var. *crassifolia*	Broad leaved lotus
*Lotus corniculatus**	Birdsfoot trefoil
Lotus unifoliolatus	American birdsfoot trefoil
Lupinus albifrons	Bush lupine
Lupinus argenteus	Silvery lupine
Lupinus benthamii	Bentham lupine
Lupinus bicolor	Bicolored lupine

Scientific Name	Common Name
Lupinus microcarpus var. *densiflorus*	Dense-flowered lupine
Lupinus nanus	Sky lupine
Medicago polymorpha†*	Bur clover
Medicago sativa	Alfalfa
*Trifolium campestre**	Hop clover
Trifolium depauperatum	Sack clover
*Trifolium dubium**	Shamrock clover
*Trifolium hybridum**	Alsike clover
*Trifolium glomeratum**	Clover
Trifolium hirtum†*	Rose clover
Trifolium microdon	Flat-bottom clover
*Trifolium subterraneum**	Subterranean clover
Trifolium variegatum	White-tip clover
Trifolium wildenovii	Tom cat clover
*Vicia sativa**	Spring vetch
*Vicia villosa**	Winter vetch
FAGACEAE	OAK FAMILY
Quercus berberidifolia	Scrub oak
Quercus douglasii	Blue oak
Quercus kelloggii	Black oak
Quercus lobata	Valley oak
Quercus wislizenii	Interior live oak
GENTIANACEAE	GENTIAN FAMILY
Centaurium tenuiflorum	Monterey centaury
Cicendia quadrangularis	Gentian
Zeltnera muehlenbergii	Muehlenberg's centaury
GERANIACEAE	GERANIUM FAMILY
*Erodium botrys**	Filaree
*Erodium cicutarium**	Filaree
Geranium carolinianum	Carolina geranium
Geranium dissectum†*	Cut-leaved geranium
*Geranium molle**	Hairy geranium
HYPERICACEAE	ST. JOHN'S WORT FAMILY
Hypericum concinnum	Goldwire
Hypericum mutilum	Dward St. John's wort
Hypericum perforatum†*	Klamath weed
IRIDACEAE	IRIS FAMILY
Iris macrosiphon	Ground iris
Sisyrinchium bellum	Blue-eyed grass
ISOETACEAE	QUILLWORT FAMILY
Isoetes orcuttii	Orcutt's quillwort
JUGLANDACEAE	WALNUT FAMILY
Juglans californica	California black walnut
JUNCACEAE	RUSH FAMILY

Scientific Name	Common Name
Juncus balticus ssp. *ater*	Baltic rush
Juncus bufonius	Toad rush
*Juncus capitatus**	Leafy bract rush
Juncus effusus	Bog rush
Juncus tenuis	Slender rush
Juncus xiphioides	Iris-leaf rush
Luzula comosa	Wood rush
Luzula subsessilis	Wood rush
LAMIACEAE	MINT FAMILY
Marrubium vulgare†*	Common horehound
Melissa officinalis	Lemon balm
Mentha arvensis	Field mint
*Mentha x. piperita**	Peppermint
Mentha pulegium	Pennyroyal
*Mentha spicata**	Spearmint
Monardella villosa	Coyote mint
Pogogyne zizyphoroides	Sacramento mesamint
Salvia sonomensis	Creeping sage
Scutellaria bolanderi ssp. *bolanderia*	Sierra skullcap
Scutellaria californica	California skullcap
Stachys ajugoides	Ajuga hedge-nettle
Stachys albens	White-stem hedgenettle
Trichostemma lanceolatum	Vinegar weed
LILIACEAE	LILY FAMILY
Calochortus albus	White globe lily
Calochortus luteus	Yellow mariposa lily
LINACEAE	FLAX FAMILY
*Linum bienne**	Narrow-leaved flax
Linum lewisii	Western blue flax
Hesperolinon spergulinum	Annual flax
Hesperolinon sp.	Dwarf flax
LYTHRACEAE	LOOSESTRIFE FAMILY
Lythrum hyssopifolia†*	Hyssop loosestrife
MALVACEAE	MALLOW FAMILY
Sidalcea hartwegii	Valley checkerbloom
MORACEAE	MULBERRY FAMILY
Ficus carica†*	Fig
MYRSINACEAE	MYRSINE FAMILY
*Anagallis arvensis**	Scarlet pimpernel
OLEACEAE	OLIVE FAMILY
Fraxinus latifolia	Oregon ash
Fraxinus sp.	Ash
ONAGRACEAE	EVENING PRIMROSE FAMILY
Camissonia hirtella	Hairy suncup

Scientific Name	Common Name
Clarkia biloba ssp. *biloba* (intergrade)	Two-lobed clarkia
Clarkia biloba ssp. *brandegeeae* (intergrade)	Brandegee's Clarkia
Clarkia purpurea ssp. *purpurea*	Four-spot clarkia
Clarkia unguiculata	Elegant clarkia
Clarkia williamsonii	Farewell-to-spring
Epilobium brachycarpum	Panicled willow-herb
Epilobium ciliatum	Hairy willow-herb
Epilobium densiflorum	Dense-flowered boisduvalia
Epilobium torreyi	Brook spike primrose
Ludwigia sp.	Water primrose
OROBANCHACEAE	BROOMRAPE FAMILY
Castilleja attenuata	Valley tassels
Castilleja densiflora	Owl's clover
Castilleja exserta	Purple owl's-clover
Castilleja lineariloba	Thin-lobed owl's clover
Castilleja sp.	Paintbrush
Triphysaria eriantha	Butter 'n eggs
Triphysaria pusilla	Dwarf owl's clover
OXALIDACEAE	OXALIS FAMILY
Oxalis sp.	Sorrel
PAPAVERACEAE	POPPY FAMILY
Eschscholzia californica	California poppy
PHRYMACEAE	LOPSEED FAMILY
Mimulus aurantiacus	Bush monkey flower
Mimulus cardinalis	Cardinal monkey flower
Mimulus guttatus	Common large monkey-flower
PINACEAE	PINE FAMILY
Pinus sabiniana	Gray pine
PLANTAGINACEAE	PLANTAIN FAMILY
Gratiola ebracteata	Bractless hedge hyssop
Hippuris vulgaris	Marestail
Plantago erecta	Plantain
*Plantago lanceolata**	English plantain
*Plantago major**	Broad-leaf plantain
Veronica americana	Brooklime
*Veronica anagallis-aquatica**	Water speedwell
Veronica peregrina ssp. *xalapensis*	Purslane speedwell
POACEAE	GRASS FAMILY
Aegilops triuncialis†*	Barbed goatgrass
*Aira caryophyllea**	Hairgrass
Avena barbata†*	Slender wild oat
Avena fatua†*	Wild oat
*Brachypodium distachyon**	False brome
*Briza minor**	Little quaking grass
Bromus carinatus var. *carinatus*	California brome

Scientific Name	Common Name
*Bromus catharticus**	Rescue grass
Bromus diandrus†*	Ripgut brome
Bromus hordeaceus†*	Soft brome
Bromus madritensis ssp. *rubens*†*	Red brome
Bromus laevipes	Chinook brome
Bromus tectorum†*	Cheatgrass
Cynodon dactylon†*	Bermuda grass
Cynosurus echinatus†*	Hedgehog dog-tail grass
Dactylis glomerata†*	Orchard grass
Elymus caput-medusae†*	Medusahead grass
Elymus elymoides var. *californicus*	Bottlebrush grass
Elymus glaucus	Blue wild-rye
*Festuca bromoides**	Brome fescue
Festuca microstachys	Vulpia
Festuca myuros†*	Rat-tail vulpia
Festuca perennis†*	Italian ryegrass
*Gastridium phleoides**	Nit grass
Holcus lanatus†*	Velvet grass
Hordeum brachyantherum ssp. *californicum*	California barley
Hordeum marinum ssp. *gussoneanum*†*	Mediterranean barley
Hordeum murinum ssp. *leporinum*†*	Foxtail
Leersia oryzoides	Rice cutgrass
Melica californica	California melic
Muhlenbergia rigens	Deergrass
*Paspalum dilatatum**	Dallis grass
Phalaris aquatica†*	Harding grass
Phalaris lemmonii	Lemon's canary grass
*Poa annua**	Annual bluegrass
*Poa bulbosa**	Bluegrass
*Poa pratensis**	Kentucky bluegrass
*Polypogon maritimus**	Mediterranean rabbits-foot grass
Polypogon monspeliensis†*	Annual rabbits-foot grass
Stipa lemmonii	Lemon's needlegrass
Stipa lepida	Foothill needle grass
Stipa pulchra	Purple needle grass
POLEMONIACEAE	PHLOX FAMILY
Gilia sp.	Gilia
Leptosiphon bicolor	True baby stars
Navarretia intertexta	Needle leaf navarretia
Navarretia pubescens	Purple navarretia
Navarretia tagetina	Marigold navarretia
POLYGALACEAE	BUCKWHEAT FAMILY
Polygala californica	Milkwort
Polygala cornuta var. *cornuta*	Sierra milkwort

Scientific Name	Common Name
POLYGONACEAE	PURSLANE FAMILY
Chorizanthe sp.	Spineflower
Eriogonum angulosum	Angle-stem buckwheat
Eriogonum vimineum	Annual buckwheat
Eriogonum wrightii	Wright's buckwheat
Rumex acetosella†*	Sheep sorrel
Rumex conglomeratus	Green dock
Rumex crispus†*	Curly dock
Rumex obtusifolius	Bitter dock
*Rumex pulcher**	Fiddle dock
Rumex salicifolius	Willow dock
Persicaria hydropiper	Common smartweed
Polygonum polygaloides	Milkwort knotweed
POLYPODIACEAE	POLYPODY FAMILY
Polypodium californicum	California polypody
PORTULACEAE	PURSLANE FAMILY
Claytonia perfoliata	Miner's lettuce
POTAMOGETONACEAE	PONDWEED FAMILY
Potamogeton sp.	Pondweed
PRIMULACEAE	PRIMROSE FAMILY
Dodecatheon hendersonii	Henderson's shooting star
Dodecatheon sp.	Shooting star
PTERIDACEAE	BRAKE FAMILY
Adiantum jordanii	California maidenhair
Pentagramma triangularis ssp. *triangularis*	Goldenback fern
Pellaea mucronata	Bird's foot fern
RANUNCULACEAE	BUTTERCUP FAMILY
Clematis lasiantha	Virgin's bower
Delphinium hansenii	El Dorado larkspur
Delphinium pattens	Zigzag larkspur
Delphinium variegatum ssp. *variegatum*	Royal larkspur
Delphinium sp.	Larkspur
Ranunculus aquatilis	White water buttercup
Ranunculus bonariensis var. *trisepalus*	Carter's buttercup
Ranunculus californicus	Buttercup
Ranunculus muricatus	Spiny-fruit buttercup
RHAMNACEAE	BUCKTHORN FAMILY
Ceanothus cuneatus	Buck brush
Frangula californica ssp. *tomentella*	Hoary coffeeberry
Rhamnus crocea	Redberry
Rhamnus ilicifolica	Hollyleaf redberry
ROSACEAE	ROSE FAMILY
Adenostoma fasciculatum	Chamise
Heteromeles arbutifolia	Toyon

Scientific Name	Common Name
Prunus ilicifolia	Holly leaved cherry
Rosa californica	California rose
Rubus armeniacus†*	Himalayan blackberry
RUBIACEAE	MADDER FAMILY
Cephalanthus occidentalis	Common buttonbush
Galium aparine	Cleavers
*Galium murale**	Yellow wall bedstraw
Galium nuttallii	Climbing bedstraw
*Galium parisiense**	Wall bedstraw
Galium porrigens	Climbing bedstraw
SALICACEAE	WILLOW FAMILY
Populus fremontii	Fremont's cottonwood
Salix exigua	Sandbar willow
Salix gooddingii	Goodding's black willow
Salix laevigata	Red willow
Salix lasiolepis	Arroyo willow
SAPINDACEAE	SOAPBERRY FAMILY
Aesculus californica	California buckeye
SAXIFRAGACEAE	SAXIFRAGE FAMILY
Lithophragma heterophyllum	Hill star
SCROPHULARIACEAE	FIGWORT FAMILY
Scrophularia californica	California figwort
*Verbascum blattaria**	Moth mullein
*Verbascum thapsus**	Common mullein
SELAGINELLACEAE	SPIKEMOSS FAMILY
Selaginella hansenii	Hansen's spikemoss
Selaginella wallacei	Little clubmoss
SOLANACEAE	NIGHTSHADE FAMILY
Solanum elaeagnifolium†*	Sliver-leaf nightshade
Solanum nodiflorum	Common nightshade
Solanum xanti	Chaparral nightshade
TAMARICACEAE	TAMARISK FAMILY
Tamarix sp.*†*	Tamarisk
THEMIDACEAE	BRODIAEA FAMILY
Brodiaea elegans	Harvest brodiaea
Dichelostemma capitatum	Blue dicks
Dichelostemma multiflorum	Wild hyacinth
Dichelostemma volubile	Twining brodiaea
Triteleia hyacinthina	Hyacinth brodiaea
Triteleia ixioides ssp. *anilina*	Mountain prettyface
Triteleia ixioides ssp. *scabra*	Foothill prettyface
Triteleia laxa	Ithuriel's spear
Triteleia sp.	Hyacinth

Scientific Name	Common Name
TYPHACEAE	CATTAIL FAMILY
*Typha angustifolia**	Narrow-leaf cattail
Typha latifolia	Broad-leaf cattail
VERBENACEAE	VERVAIN FAMILY
Phyla nodiflora	Common frog-fruit
VISCACEAE	MISTLETOE FAMILY
Phoradendron serotinum ssp. *tomentosum*	Oak mistletoe
Phoradendron villosum	Pacific mistletoe
VITACEAE	GRAPE FAMILY
Vitis californica	California wild grape

* Non-native species.

† Invasive species/noxious weed--included on California Department of Food and Agriculture Noxious Weed List (2010) and/or California Invasive Plant Inventory (Cal IPC 2006, 2007).

F.1 References

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Appendix F

Oak Resources Technical Report

Oak Resources Technical Report
Oak Woodlands and Oak Tree Individuals

The Village of Marble Valley Specific Plan

El Dorado County, California

Prepared For:

Marble Valley Company

June 26, 2018

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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1.0 INTRODUCTION

This Oak Resources Technical Report was prepared to satisfy the requirements of the El Dorado County (County) Oak Resources Management Plan (ORMP), adopted in 2017. The purpose of the report is to identify the inventory of individual native oak trees and oak woodland on the Village of Marble Valley Specific Plan Project (Project) site and address native oak tree impacts and proposed mitigation for the Project. This report provides Project oak resources impacts and mitigation acceptable under the County ORMP.

This Oak Resources Technical Report has been prepared as a program-level analysis, and focuses primarily on the changes to oak resources that would occur because of full Project implementation and examines all phases of the Project. Ultimately, this report will be used by both the County and applicants as a tool in evaluating oak resource impacts and possible mitigation methods at the time of future, individual tentative map proposals. At the time of tentative map application, individual development proposals within the Specific Plan area will be required to prepare a refined, land-specific oak resource technical report consistent with the County ORMP. This redundancy of analysis is intended to account for natural dynamics associated with oak woodlands over the planned project time horizon, such as ongoing tree growth and revegetation and natural mortality.

1.1 Project Description and Location

The Village of Marble Valley Specific Plan area encompasses approximately 2,341 acres south of U.S. Highway 50 (US 50), east of Bass Lake Road, and west of Cambridge Road (Figure 1. *Project Location and Vicinity*). The Project site is primarily hilly terrain vegetated with oak savannah, with lowland riparian oak woodland along Marble and Deer creeks, and chaparral on several southern aspect hill slopes (Figure 2. *Vegetation Communities*). The elevation of the site ranges from approximately 680 to 1,300 feet above mean sea level (MSL). Marble Creek enters the area from the northern boundary of the property, and flows in a southerly direction into Deer Creek, which flows from east to west through the southern portion of the site. The hills are drained by various intermittent drainages and seasonal wetland swales. There are two former limestone quarries in the northern portion of the Project area.

The Project is located within portions of Sections 7, 8, 9, 16, 17, 20, and 21, of Township 9 North, Range 9 East of the "Clarksville, California", "Shingle Springs, California", "Folsom Southeast, California", and "Latrobe, California" 7.5-minute topographic quadrangles (U.S. Geological Survey [USGS] 1978, 1973a, 1980, 1973b). The Project is located at approximately 38° 39′ 00″ North and 121° 01′ 15″ West within the Upper Cosumnes Watersheds (USGS Hydrological Unit Code #18040013).

The Project proposes a mixed-use sustainable community, with a variety of residential housing types, commercial uses and public facilities including a Village Center, two public schools, vineyards, a wine and agricultural center, a historic park, other public and private parks, and expansive permanent open space and trails (see Figure 3. *Land Use Plan*). In addition, offsite infrastructure and other improvements—roads and water and wastewater line extensions as well as oak woodland restoration—would be needed to support the proposed Project. These areas are referred to collectively as the offsite infrastructure improvement areas and involve the areas listed below.

- A new connection of Marble Valley Parkway to the Bass Lake Road interchange with US 50 (Marble Valley Parkway/Bass Lake Road).
- A new section of Marble Valley Parkway between the east and west sides of the northern portion of the project site (Marble Valley Parkway connection).
- Extension of the new Marble Valley Parkway access road to the Cambridge Road interchange with US 50 (Marble Valley Parkway/Cambridge Road).
- Interim improvements to the US 50/Cambridge Road interchange.
- Interim improvements to the US 50/Bass Lake Road interchange.
- Interim potable water improvements for Phase I within roadways.
- New water transmission lines along Bass Lake and Cambridge Roads.
- An area east of the project area that encompasses two infrastructure components:
- Extensions of water and wastewater lines to connect to existing El Dorado Irrigation District (EID) infrastructure (EID water [potentially recycled water] and wastewater lines).
- Potential extension of the new Lime Rock Valley Road to Deer Creek Road.
- In addition, extensions to connect to electricity and natural gas services would be necessary to serve the Project. These dry utility connections would be constructed by PG&E.
- PG&E electricity service would be extended from a 21-kilovolt (kV) single-phase overhead line connecting to two existing substations, Clarksville to the west and Shingle Springs to the east.
- PG&E may extend service to the Project area to provide natural gas service. The connections to the Project area would follow Bass Lake Road or Cambridge Road.

1.2 El Dorado County Oak Tree Permit and Mitigation Requirements

Forest and oak woodland resources, as well as individual native oak trees, are protected by Objective 7.4.4 of the El Dorado County General Plan, which states:

> *Protect and conserve forest and woodland resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of sustainable flow or wood products, and aesthetic values (El Dorado County 2009).*

Policy 7.4.4.4 of the General Plan (El Dorado County 2009; Revised 2015) specifies that mitigation requirements for impacts to oak resources (oak woodlands, individual native oak trees, and Heritage Trees) shall be quantified and identified by a certified arborist or biologist.

The Implementation Measure of Policy 7.4.4.4 directed the County to develop and adopt the Oak Resources Management Plan (ORMP) (El Dorado County 2017), which addresses the following:

- Mitigation standards for oak resources impacts;

- Definitions of exempt projects and actions;
- Technical report requirements;
- Oak resources mitigation options and standards;
- Heritage Tree mitigation standards; and
- Oak resources mitigation monitoring and reporting requirements.

The County ORMP, adopted in 2017, serves multiple purposes. It defines the County's conservation strategy for oak resources and provides a framework for mitigating impacts to oak resources. It also complies with Implementation Measure CO-P and constitutes the oak portion of the County's Biological Resources Mitigation Program (General Plan Policy 7.4.2.8).

The policy of the County is to preserve native oak resources when feasible, through the review of all proposed development activities where such trees are present on either public or private property, while at the same time recognizing individual rights to develop private property in a reasonable manner. As such, the County requires mitigation for impacts to oak woodlands, individual native oak trees, and Heritage Trees. The ORMP defines a Heritage Tree as a native oak tree measuring 36 inches diameter at breast height (DBH) or greater. According to the ORMP, there are six primary native oak tree species in El Dorado County, including blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), canyon live oak (*Quercus chrysolepis*), and Oregon oak (*Quercus garryana*). Additionally, one native hybrid between California black oak and interior live oak exists, known as oracle oak (*Quercus x morehus*). These oak species comprise the County's oak woodlands and also occur outside of oak woodlands as isolated individuals or small groups.

Per the requirements of the ORMP, a tree removal permit is required for discretionary and ministerial (e.g., building permits) projects to authorize removal of any trees that are a component of an oak woodland and any individual native oak tree not located within an oak woodland. A tree removal permit is also required for removal of any Heritage Tree. An oak resources technical report must accompany any tree removal permit application submitted to the County, which may impose such reasonable conditions of approval as are necessary to protect the health of existing oak trees, the public, and the surrounding property. Oak tree removal permit review will be integrated into the environmental review process for discretionary projects or may be processed as an administrative permit for ministerial projects.

Oak Woodland Mitigation

Onsite retention of oak woodlands is incentivized by the ORMP. Projects impacting up to 50% of total oak woodlands mitigate for impacts at a 1:1 ratio. Projects impacting between 50.1-75% must mitigate for impacts at 1.5:1 and projects impacting greater than 75% of their oak woodlands must mitigate at 2:1. Mitigation for oak woodlands may occur using one or more of the following options:

1. Offsite deed restriction or conservation easement acquisition and/or acquisition in fee title by a land conservation organization for purposes of offsite oak woodland conservation;

2. In-lieu fee payment;

3. Replacement planting onsite within an area subject to a deed restriction or conservation easement;

4. Replacement planting offsite within an area subject to a conservation easement; or

5. A combination of numbers 1 through 4 above.

Consistent with California PRC 21083.4, replacement planting shall not account for more than 50 percent of the oak woodland mitigation requirement.

Individual and Heritage Trees Mitigation

Mitigation for removal of individual native oak trees is to be based on an inch-for-inch replacement standard (defined in Section 2.4 of the ORMP). Mitigation for removal of Heritage Trees is based on an inch-for-inch replacement standard at a 3:1 ratio. Options for individual native oak tree and Heritage Tree impact mitigation requirements include:

1. Replacement planting onsite within an area subject to a deed restriction or conservation easement;

2. Replacement planting offsite within an area subject to a conservation easement or acquisition in fee title by a land conservation organization;

3. In-lieu fee payment; or

4. A combination of numbers 1 through 3 above.

For impacts to individual native oak trees that are not otherwise mitigated, replacement plantings are required to be calculated based upon an inch-for-inch replacement of removed individual native oak trees. The total of replacement trees must have a combined diameter of the tree(s) removed. Replacement tree species must be the same proportion as those removed. Replacement trees are required to be planted onsite and monitored and maintained for a period of seven years, calculated from the day of planting. Offsite replacement plantings may be permitted, with County approval, preferably in proximity, and/or in connection with, oak woodlands contiguous to the project site or within or adjacent to a Priority Conservation Area (PCA) or an Important Biological Corridor as designated in the General Plan or important ecological area as identified in the Initial Inventory and Mapping. Replacement plantings must be inspected, maintained and documented consistent with requirements for mitigation maintenance, monitoring, and reporting.

Replacement tree sizes may vary and may include acorn plantings, based on documentation of inch-for-inch replacement consistency. **Table 1** identifies replacement tree size options and associated quantity of trees, by size, required to meet the inch-for-inch replacement standard.

Table 1. Oak Tree Replacement Quantities	
Replacement Size Trees	Number of Trees Required Per Inch of Trunk Diameter Removed
Acorn	3
1-Gallon / Tree Pot 4	2
5-Gallon	1.5*
15-Gallon	1

*Quantity of replacement trees to be rounded up to the nearest whole number

If acorns are used, they must be planted at a 3:1 ratio (three acorns for every one inch of trunk diameter removed) under the direction of a qualified professional. Acorn planting must not exceed 25 percent of any project's tree planting total. If one-gallon/Tree Pot 4-sized containers are used, they must be planted at a 2:1 ratio (two container trees for every one inch of trunk diameter removed). If five-gallon-sized containers are used, they must be planted at a 1.5:1 ratio (1.5 container trees for every one inch of trunk diameter removed). Finally, if 15-gallon-sized containers are used, they must be planted at a 1:1 ratio (one container tree for every one inch of trunk diameter removed).

The replacement planting area is required to be suitable for tree planting, must not conflict with current or planned land uses, and must be large enough to accommodate replacement plantings up to a maximum density of 200 trees per acre. Replacement plantings are required to be inspected, maintained and documented consistent with the requirements for mitigation maintenance, monitoring, and reporting. For impacts to Heritage Trees, replacement plantings are required to adhere to the standards identified for individual native oak trees; however, replacement totals must be calculated based upon an inch-for-inch replacement at a 3:1 ratio.

Oak resources replacement planting plans are required to be prepared for all replacement planting efforts (onsite and offsite) by a qualified professional. Replacement planting plans must address the following:

- Consistency with the accepted native oak tree planting standards, including those outlined in *Regenerating Rangeland Oaks in California*, *How to Grow California Oaks*, *How to Collect, Store and Plant Acorns*, and other publications and protocols that may be established by the University of California, Division of Agriculture and Natural Resources. (ORMP 2017.)
- The suitability of the site must be demonstrated with soil information, aerial photography, or other resources.
- The density of replanting must be determined by the qualified professional, based on accepted practice and current research, up to a maximum density of 200 trees per acre.
- The intent of the replacement planting plan is to provide replacement oak trees or acorns with a similar mix of species as those removed, however, the species may vary based on site specific conditions, as determined by the qualified professional.

- Acorns or container trees for replanting must be from local sources, when available, to maintain local genetic strains.
- Replacement planting must not be located within the 100-foot defensible space zone from an existing or proposed structure unless otherwise consistent with CAL FIRE's defensible space guidelines and fuels reduction requirements mandated under PRC 4291.
- Replacement plantings are required to be maintained in a manner determined by the Qualified Professional, based on the site-specific conditions, which may include weed control, irrigation, tree protection, pest management, and/or fertilization.
- The replacement planting plan is required to identify the frequency and methods of maintenance and monitoring, as well as contingencies or alternatives if the success criteria are not met annually or at the end of the monitoring term along with a means to ensure compliance with the replacement planting plan. The monitoring term is seven years (PRC 21083.4).
- Best Management Practices (BMPs) for protection of retained oaks during and after construction (refer to Appendix D of the ORMP).
- An estimate of the total costs associated with implementation of the replacement plan.

1.3 Purpose of This Oak Resources Technical Report

The ORMP requires that the Project applicant prepare an Oak Resources Technical Report for the Project, which will address impacts to oak woodlands and individual oak trees and outlines plants for oak resource mitigation. This document addresses the requirements of the ORMP. This Oak Resources Technical Report was prepared by Seth Myers (International Society of Arboriculture [ISA]-certified Arborist [WE-7501A]) and provides the following:

- A map of oak woodland habitat across the Project and a discussion of woodland impacts;
- A map of the inventoried native oak tree individuals outside the oak woodland anticipated to be impacted (i.e., removed) by the Project;
- A discussion of the relative importance of the Project's native oak tree individuals as habitat for regionally occurring wildlife species and as wildlife corridors;
- A discussion of how the Project will conform to the requirements of the ORMP;
- Project avoidance, minimization, and/or compensation for impacts on oak tree individuals;
- Recommendations for tree protection during development; and
- Mitigation planting, monitoring, and reporting.

2.0 OAK RESOURCES TECHNICAL REPORT

This report discusses the method used to identify oak woodlands and woodland impacts within the plan area and identifies the existing native oak tree individuals within the Project that are anticipated to be affected by the Project.

2.1 Oak Woodland Resources

Oak Woodland Mapping Method

Vegetation mapping was conducted by ECORP biologists concurrently with the preparation of the Biological Resource Study and Important Habitat Mitigation Plan for the Project site in 2014 (ECORP 2014). Vegetation community classifications were based on the classification systems presented in *A Manual of California Vegetation*, Second Edition (Sawyer et al. 2009), *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), and *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer Jr. 1988).

Due to the quantity of oak trees within the Project, a traditional arborist survey (including tree inventory) was not conducted. Instead, a remote sensing-based canopy mapping approach was implemented. Oak woodlands were mapped as part of a vegetation community mapping exercise using aerial photographs and Light Detection and Ranging (lidar) data and total oak canopy was mapped using hyperspectral imaging and lidar technology. Oak woodland polygons were field verified by an ECORP arborist and biologists conducting surveys of individual oak trees of the Project during individual oak tree surveys conducted between the end of April and beginning of May in 2018.

Oak Woodland Mapping Results

Across the entire 2,341-acre site, a total of 60 acres of blue oak savannah, 765 acres of open blue oak woodland, and 1,063 acres of closed-canopy blue oak woodland was mapped for a total of 1,888 acres of oak woodland. An additional 26 acres of valley foothill riparian habitat was mapped. Other habitats include annual grassland (167 acres), white leaf manzanita chaparral (208 acres), wetlands (40 acres) and disturbed/developed (13 acres).

2.2 Individual Oak Tree Resources

On April 23 and 30, 2018, and May 1-3, 2018, ECORP Consulting, Inc. performed a tree survey within the Project and inventoried all existing onsite oak tree individuals outside of oak woodland areas identified above and greater than six inches within the Project impact area. As discussed in Section 1.2, six native oak species and one naturally occurring hybrid oak species are recognized as sensitive natural resources in the county, and impacts to them must be mitigated to comply with the ORMP.

Individual Oak Tree Mapping and Inventory Method

The Project site was surveyed on foot and the seven oak trees species identified in the ORMP were inventoried. Physical attribute information was recorded about each inventoried tree, which included (1) DBH, (2) approximate height, (3) drip line radius, and (4) health/condition (normal, fair, poor) (see

Attachment B). The on-foot survey included a detailed visual inspection of the inventoried oak trees. Each tree was examined from every direction to identify pertinent conditions. Inspection tools employed included diameter tape and binoculars to examine the crown for defect indicators. The definitions of each tree condition rating are as follows:

Normal	■ No trunk or root cavities or injuries present ■ No indication of hollowness ■ Root crown is at or slightly above grade ■ No decay present except for small stubs ■ Strong structure ■ Tapered trunk ■ No fungus evident	■ Below average amount of dead limbs ■ No co-dominant branching ■ No large callused areas, callusing intact ■ No evidence of large-scale insect infestation ■ Average growth rate ■ No excessive limb weight ■ Normal foliage, tree not suppressed
Fair	■ No decay in the root crown and no major decay in the truck or limbs ■ Small cavities may be present ■ No fungus evident ■ Some small to moderate callusing injuries may be present	■ Some suppression or crowded growing conditions present ■ Average amount of dead wood limbs ■ Small cavities may be present ■ Foliage size, color, and density may vary
Poor (indication that trees are weakened and dying)	■ Significant cavities, dead areas, and decay present ■ Tree structurally defective ■ Decay present in the root crown or base of trunk ■ Fungus bodies present indicating internal decay	■ Dead limbs above normal ■ Co-dominant branching with included bark present ■ Foliage is below average in size and color ■ Pest damage may be present

Individual Oak Tree Mapping Results

During the survey, 101 valley oak tree individuals, 36 interior live oak individuals, 300 canyon live oak individuals, 4 black oak individuals, 4 oracle oak tree individuals, and 207 blue oak tree individuals were inventoried onsite and offsite within the areas that will be impacted by the Project. An additional 77 inaccessible tree individuals were inventoried, the majority of these identified as interior live oak individual. As previously described, blue oaks, valley oaks, black oaks, interior live oaks, canyon live oaks, Oregon oaks, and oracle oaks are protected under the ORMP. Therefore, for the purposes of this report, these species are accounted for as part of the Project mitigation requirements.

In total, 128 Heritage Trees were inventoried: 16 valley oak trees, 9 interior live oaks, 71 canyon live oaks, 1 black oak tree, 1 oracle oak tree, and 30 blue oaks.

A list of all inventoried oak trees that are anticipated to be impacted by the Project are included in Attachment B and shown in Figure 4.

2.3 Impact Summary

As previously described, of the total 1,888 acres of oak woodland spanning the entire Project site (60 acres of blue oak savannah, 765 acres of open blue oak woodland, and 1,063 acres of closed-canopy blue oak woodland), 693.1 acres (36.7% of all site woodland) could be impacted because of the Project (see Figure 4). As previously described, projects impacting up to 50% of total oak woodlands mitigate for impacts at a 1:1 ratio.

Furthermore, up to 11,369 inches of individual native oak trees could be affected because of the Project (1,576 inches of valley oaks, 541 inches of interior live oaks, 4,385 inches of canyon live oaks, 61 inches of black oaks, 74 inches of oracle oaks, 2,848 inches of blue oaks, and 1,884 inches of inaccessible oak trees, the majority of which are interior live oaks). Additionally, up to 6,627.5 inches of individual Heritage Trees could be affected (719 inches of valley oaks, 488 inches of interior live oaks, 3,901.5 inches of canyon live oaks, 44 inches of black oak, 54 inches of oracle oaks, 1,383 inches of blue oaks, and 38 inches of inaccessible oak tree). See **Table 2** for a summary of total anticipated Project impacts.

Table 2. Oak Resource Impacts

Resource Type	Onsite Acres/Inches Impacted	Offsite Acres/Inches Impacted	Total Acres/Inches Impacted
Oak Woodland			
Total Oak Woodlands Onsite & Offsite (acres)	689.6	3.5	693.1
Individual Native Oak Trees			
Valley Oak (*Quercus lobata*)	1,495.0	81.0	1,576.0
Interior Live Oak (*Quercus wislizeni)*	541.0	0.0	541.0
Canyon Live Oak (*Quercus chrysolepis*)	3,430.0	955.0	4,385.0
Black Oak (*Quercus kelloggii*)	61.0	0.0	61.0
Oracle Oak (Quercus x morehus)	74.0	0.0	74.0
Blue Oak (*Quercus douglasii*)	2,812.0	36.0	2,848.0
Inaccessible Oaks	831.0	1,053.0	1,884.0
Total (inches):	9,244.0	2,125.0	11,369

Table 2. Oak Resource Impacts			
Resource Type	Onsite Acres/Inches Impacted	Offsite Acres/Inches Impacted	Total Acres/Inches Impacted
Heritage Oak Trees			
Valley Oak (*Quercus lobata*)	719.0	0.0	719.0
Interior Live Oak (*Quercus wislizeni)*	488.0	0.0	488.0
Canyon Live Oak (*Quercus chrysolepis*)	2,966.5	935.0	3,901.5
Black Oak (*Quercus kelloggii*)	44.0	0.0	44.0
Oracle Oak (Quercus x morehus)	54.0	0.0	54.0
Blue Oak (*Quercus douglasii*)	1,383.0	0.0	1,383.0
Inaccessible Oaks	38.0	0.0	38.0
Total (inches):	5,692.5	935.0	6,627.5

*Quantity of replacement trees to be rounded up to the nearest whole number

3.0 TREE MITIGATION PLAN

3.1 Oak Woodland Mitigation

The Marble Valley Specific Plan has been designed to maximize oak woodland protection through a variety of methods. Not only does the Project limit the proposed development footprint to 693.1 acres of the 1,888 acres of oak woodland, further oak tree avoidance is anticipated through the incorporation of design measures intended to minimize land disturbance and retain additional oak woodland within the development footprint at the tentative map stage. As previously described, all future, individual development proposals within the Specific Plan area will be required to prepare a refined, land-specific oak resource technical report consistent with the County ORMP at the time of tentative map application. This seeming redundancy of analysis is intended to account for natural dynamics associated with oak woodlands such as ongoing tree growth and re-vegetation and natural mortality. Ultimately, this report will be used by both the County and applicants as a tool in evaluating oak resource impacts and possible mitigation methods at the time of future, individual tentative map proposals.

In total, 693.1 acres of existing oak woodlands (36.7% of all Project woodland) lay within the proposed development footprint (see Figure 4). As previously described, projects impacting less than 50% of total oak woodlands mitigate for impacts at a 1:1 ratio, per the requirements of the ORMP. Therefore, the Project will be required to replace impacted oak woodlands at a 1:1 ratio using the options mitigation described in Section 1.2.1 above. Consistent with California PRC 21083.4, replacement planting shall not account for more than 50 percent of the oak woodland mitigation requirement. Therefore, half of the Project's oak woodland impact mitigation requirement would consist of replacement planting onsite. Per the requirements of the ORMP, the replacement planting area must be suitable for tree planting, shall not conflict with current or planned land uses, and shall be large enough to accommodate replacement

plantings at a density equal to the density of oak woodlands impacted, up to a maximum density of 200 trees per acre. Replacement plantings are inspected, maintained and documented consistent with the requirements for mitigation maintenance, monitoring, and reporting per the ORMP.

The remaining Project's oak woodland impact mitigation requirement would be implemented in the form of an in-lieu fee payment to the County. The in-lieu fee for oak woodlands ($8,285 / impacted acre of woodland) is based on the costs of acquisition of land and conservation easements, along with management, monitoring, and administrative costs. Because the proposed Project would mitigate up to 50% of the impacted 693.1 acres with replanting, under the current proposal the in-lieu fee for the remaining mitigation requirement would equate to $2,871,581 for 346.6 acres of woodland impact (50 percent of 693.1 acres) at $8,285 per acre.

3.2 Individual Oak Tree Mitigation

As previously described, up to a total of 11,369 inches of individual native oak trees could be impacted because of the Project. Additionally, 6,627.5 inches of individual Heritage Trees could be impacted. Options for individual native oak impact mitigation requirements include replacement plantings, in-lieu payment, or a combination of the two. Replacement plantings are required to be calculated based upon an inch-for-inch replacement of removed individual native oak trees, and a three-inch-for-one-inch replacement of removed Heritage Trees. This equates to the requirement of replanting 31,251.5 inches of oak trees, based on an inch-for-inch replacement standard for individual oak trees and an inch-for-inch replacement standard at a 3:1 ratio for Heritage Trees. Replacement trees are required to be monitored and maintained for a period of seven years, calculated from the day of planting. Replacement plantings must be inspected, maintained and documented consistent with requirements for mitigation maintenance, monitoring, and reporting per the ORMP. Currently, the in-lieu fee program requires a payment of $153 per inch of impact for individual oak trees and $459 per inch for Heritage Trees. Using the per-inch mitigation fee option would result in a fee of up to $1,739,457 for individual oaks and $3,042,022.50 for Heritage Trees. The total fee would be up to $4,781,479.50.

3.3 Potential Oak Mitigation Assessment

The Village of Marble Valley Specific Plan Project will comply with the requirements of the ORMP through tree replanting and/or payment of fees. In terms of oak woodland impacts, the Project may mitigate up to 50% of the impacted 693.1 acres (includes both onsite and offsite impacts) of oak woodland with replanting. The remaining Project's oak woodland impact mitigation requirement would be implemented in the form of an in-lieu fee payment to the County in the amount of $2,871,581 or off-site deed restriction or conservation easement acquisition and/or acquisition in fee title by a land conservation organization for purposes of off-site oak woodland conservation. Concerning oak individual impacts, the Project is required to mitigate for 31,251.5 inches of oak trees, based on an inch-for-inch replacement standard for individual oak trees and an inch-for-inch replacement standard at a 3:1 ratio for Heritage Trees. Impacts to oak tree individuals can be mitigated through replanting, payment of an in-lieu fee, or a combination of the two. Using the per-inch, in-lieu mitigation fee option would result in a fee of $4,781,479.50.

However, all future, individual development proposals within the Specific Plan area will be required to prepare a refined, land-specific oak resource technical report consistent with the County ORMP at the time of tentative map application, and site-specific oak resource impacts and potential oak mitigation will be re-assessed and implemented at that time. Such site-specific analyses prepared at the time of specific development proposals are intended to account for natural dynamics associated with oak woodlands. Future oak resource technical reports will evaluate specific oak resource impacts and possible mitigation methods at the time of future, individual tentative map proposals.

A Biological Resources Study and Important Habitat Mitigation Plan for Oak Woodlands was completed for the Project in 2014 (see Attachment A). This Plan identifies standard mitigation measures that will be used by the Project to provide sufficient mitigation to impacts to oak trees. It contains an onsite mitigation assessment that details where oak trees can be planted (i.e., mitigation areas), mitigation measures to be used by the Project, and information on mitigation monitoring, success criteria, and reporting. As identified in the Biological Resources Study and Important Habitat Mitigation Plan for Oak Woodlands, the Project has incorporated various conservation, preservation, and oak replacement measures into its design to minimize impacts to oak trees and oak woodland habitat. For instance, ECORP has identified 135.2 acres within the Open Space areas as potential plantable space for oak mitigation (ECORP 2014). Within these 135.2 acres of plantable space, four classes of species and planting type were established, based on site suitability:

- Class 1 - blue/live oak acorns (±50 acres);
- Class 2 - a combination of blue/live oak saplings and/or acorns (±48 acres);
- Class 3 - black/live oak saplings (±0.5 acres); and
- Class 4 - Valley/live oak saplings (±37 acres).

Approximately 50.2 acres are suitable for blue/live oak acorns (Class 1). The majority of Class 1 locations are within the Open Space areas in the south-central portion of the Project area. In general, acorn plantings are ideal for rocky soils where digging is difficult. These areas contain large rock outcrops, steep slopes, and shallow, rocky soils. If supplemental irrigation is feasible, it is recommended to ensure survivorship of the acorns.

Oak saplings are suitable for soils with fewer, smaller rocks and where water is available for irrigation. In these areas, acorns can also be planted. Areas that are suitable for either saplings or acorns are classified as Class 2, and there are approximately 47.6 acres scattered around the site within this classification. Approximately 0.3 acre was identified as suitable for black/live oak saplings (Class 3), a small area in the northeast corner of the Project. Approximately 37 acres are suitable for valley/live oak saplings (Class 4). These areas are scattered within the Open Space areas within the central part of the Project area. Areas that are suitable for Class 4 saplings included low gradient areas and/or areas adjacent to creek channels where there tends to be deep soils with higher soil-water content.

Further detail concerning specific timing and phasing of plantings, maintenance of plantings, irrigation schedule, monitoring, and success criteria can be found in the Biological Resources Study and Important

Habitat Mitigation Plan for Oak Woodlands (Attachment A). Components of the Biological Resources Study and Important Habitat Mitigation Plan relating to mitigation maintenance, monitoring, and reporting will be modified to be consistent with the requirements of the ORMP.

The following is a summary of other measures proposed by the Project:

- In total, 1,284 acres of Open Space will provide regional protection of the biological resources through reducing habitat fragmentation by maintaining Open Space corridors, retaining animal dispersal corridors and migratory pathways, and preserving as much contiguous habitat as possible, consistent with the County's General Plan.
- The Project as designed does not contain and is not located directly adjacent to designated Important Biological Corridors or Ecological Preserve areas, and is not anticipated to have impacts on these areas.
- The Project has been designed and clustered to minimize impacts and reduce habitat fragmentation.
- To limit disturbance and impacts to biological resources, infrastructure elements such as bridges, roads, utilities, and pipelines will be placed within previously disturbed locations, where feasible.
- Oak woodland restoration or enhancement will be conducted to mitigate for losses to oak forest canopy and to enhance the ecological value of Open Space areas.
- Contiguous stands of oak woodland habitat and the corridors connecting the stands will be retained. In addition, the Project, as designed, preserves and provides access to the Bass Lake Road undercrossing, which has been identified as one of the few remaining wildlife corridors under US 50.
- The Project developer will prepare lot notebooks for each custom lot, which limit the development area for the placement and construction of primary and ancillary structures.
- To minimize impacts on custom lots, the Covenants, Conditions, and Restrictions (CC&R) Design Guidelines will set forth special design and construction measures to minimize impacts to oak trees, such as limiting excessive pad grading through the use of raised foundations, piers, post and beam construction and other similar measures, to the extent feasible.
- If necessary, pruning, cabling, and other corrective measures for preserved trees will be specified by an ISA-certified arborist, and will conform to the pruning standards of the ISA.
- Each tree or group of trees to be preserved within one foot of the drip line of ground disturbance will be protected with a fence or other acceptable methods, such as warning tape, indicating grading limits prior to any grading or movement of heavy equipment. Grading limit line demarcation should be removed following construction, and prior to installation of landscaping material.
- Signs will be posted on all sides of grading limit lines surrounding an individual tree or group of trees stating that each tree is to be preserved.

- Prior to construction, awareness training will be conducted for all construction personnel regarding the importance of the oak woodlands, the locations of preserved trees within the vicinity of the construction area, and preservation measures that are in place to protect them.
- To the extent possible no landscaping requiring permanent irrigation will be installed within the drip line of any preserved heritage or landmark tree, and to the extent possible, run-off, particularly from landscape irrigation, will be directed away from the root zone.
- Excavating and/or trenching within the drip line of trees (or a distance of half the drip line, outside of the drip line) will be avoided whenever practicable. However, if unavoidable, any authorized cut or fill occurring within the drip line of any preserved tree should be supervised by an ISA-Certified arborist.
- Any exposed roots will be covered with a protective material during construction.
- Native tree replacement will be used to mitigate the removal of native trees within the area, subject to approval by the County.
- Procedures and protocols for tree preservation and protection will comply with standards established by the County.
- Oak trees required to be planted as a condition of construction will be maintained after completion of construction according to this Plan.

4.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this Oak Resources Technical Report, and that the facts, statements, and information presented herein are true and correct to the best of my knowledge and belief.

Seth A. Myers

SIGNED: DATED: May 7, 2018

Seth A. Myers
Certified Arborist (WE7501A)

5.0 REFERENCES

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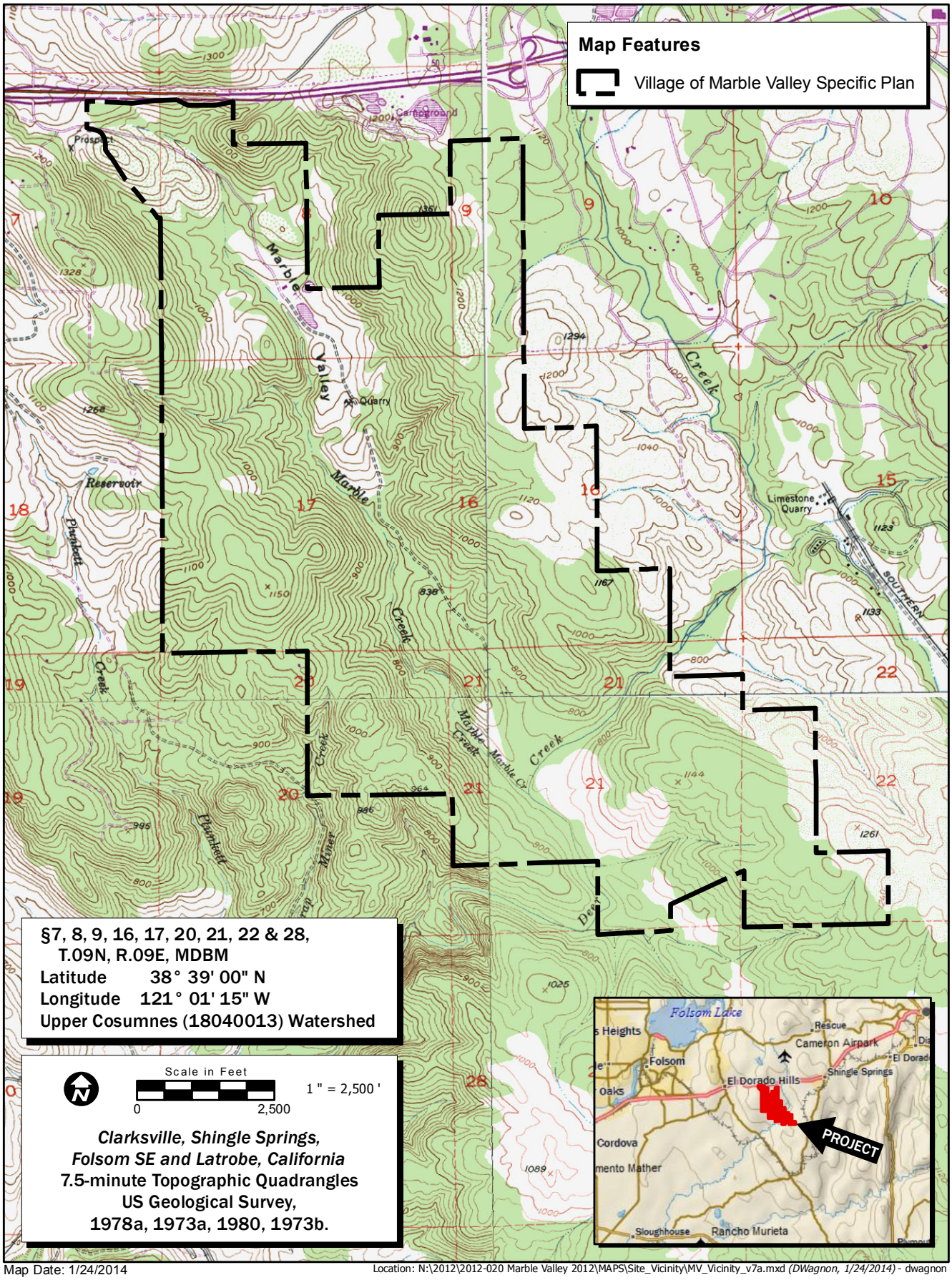
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Figure 2. Vegetation Communities

Figure 3. Land Use Plan

Figure 4. Onsite & Offsite Oak Resource Impacts



Map Date: 1/24/2014
Service Layer Credits: Copyright:© 2012 DeLorme

Location: N:\2012\2012-020 Marble Valley 2012\MAPS\Site_Vicinity\MV_Vicinity_v7a.mxd *(DWagnon, 1/24/2014)* - dwagnon

Figure 1. Project Location and Vicinity

2012-020 The Village of Marble Valley Specific Plan

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Map Features

- Specific Plan Boundary - 2341 ac.
- Wetlands and Other Waters of the U.S. - 40 ac.

Vegetation Communities

- Annual Grassland - 167 ac.
- Blue Oak Savannah - 60 ac.
- Open Blue Oak Woodland - 765 ac.
- Closed-canopy Blue Oak Woodland - 1063 ac.
- Valley Foothill Riparian - 26 ac.
- White Leaf Manzanita Chaparral - 208 ac.
- Disturbed/Developed - 13 ac.

Scale in Feet

0 800 1,600

Location: N:\2012\2012-020 Marble Valley 2012\MAPS\Vegetation\Vegetation\v2\Vegetation_ v2_ FullProp_11x17.mxd (DW)-dwagdon 12/13/2013

Map Date: 12/13/2013
Photo Source: NAIP (2012)

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Figure 2. Vegetation Communities

2012-020 The Village of Marble Valley Specific Plan

Scale in Feet

0 750 1,500

Specific Plan Boundary - 2341 ac.

Preferred Land Use Plan

- Village Residential Low (Custom Lots)
- Village Residential Low (Mass Pad Graded)
- Village Residential Medium
- Village Residential High
- Village Commercial
- Office Park
- Public School
- Agritourism
- Village Park
- Private Road
- Public Road
- Public Utility
- Detention Area
- Water
- Open Space

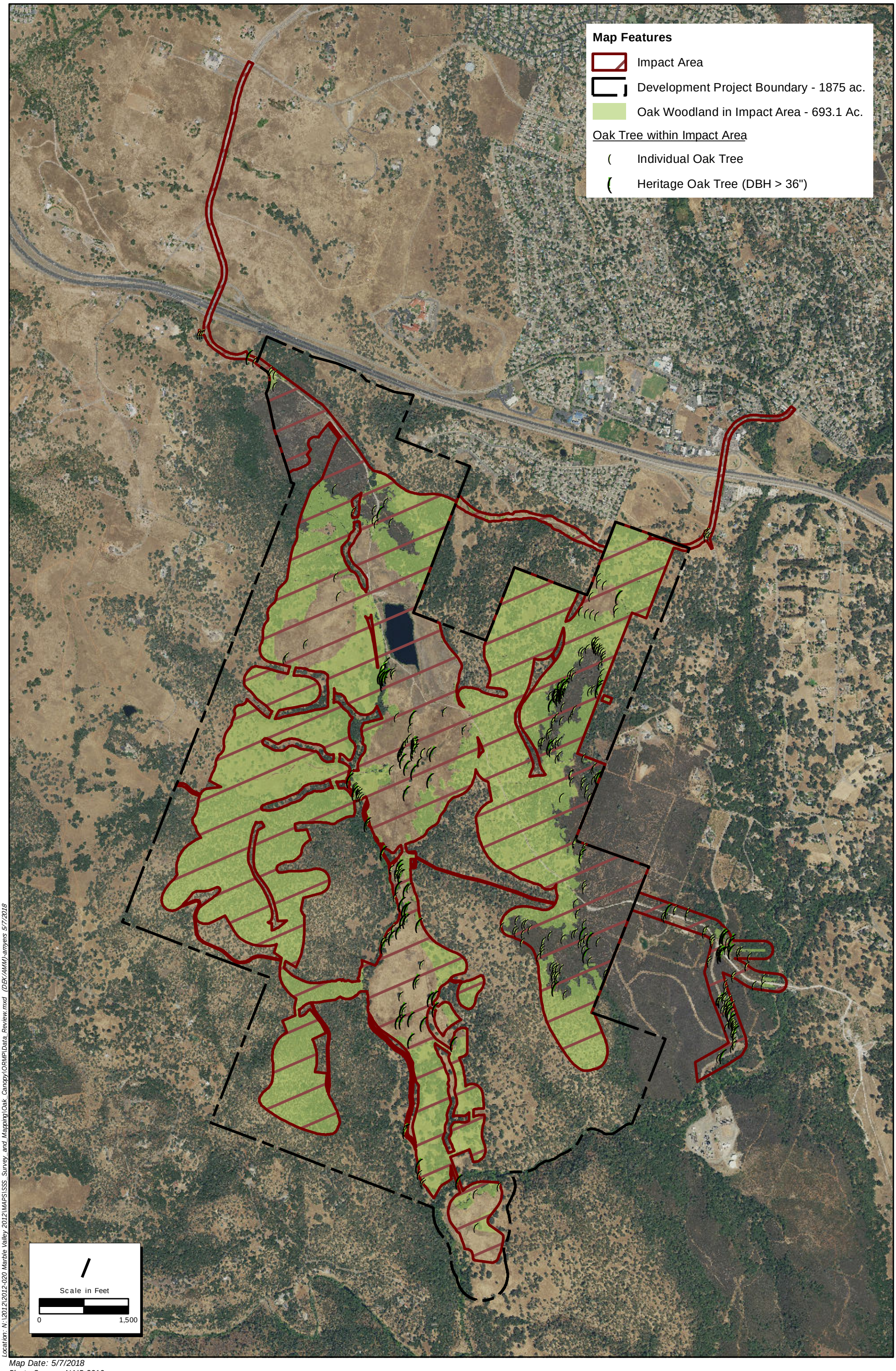
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Map Date: 11/25/2013

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Figure 3. Land Use Plan

2012-020 The Village of Marble Valley Specific Plan



Location: N:\2012\2012-020 Marble Valley 2012\MAPS\SSS_Survey_and_Mapping\Oak_Canopy\ORMP\Data_Review.mxd (DEK/AMM)-amyers 5/7/2018

Map Date: 5/7/2018
Photo Source: NAIP 2016

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Figure 4. Onsite & Offsite Oak Resource Impacts

2012-020 Village of Marble Valley Specific Plan

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Attachment A – Biological Resources Study and Important Habitat Mitigation Plan for Oak Woodlands at the Village of Marble Valley El Dorado County, California

Attachment B – Tree Survey Table

ATTACHMENT A

Biological Resources Study and Important Habitat Mitigation Plan for Oak Woodlands at the Village of Marble Valley El Dorado County, California

Biological Resources Study and

Important Habitat Mitigation Plan

for

Oak Woodlands at

The Village of Marble Valley

El Dorado County, California

24 January 2014

Prepared For:

The Marble Valley Company, LLC

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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Attachment B – Natural Resources Conservation Service Descriptions for Soils Observed During Field Surveys
Attachment C – Proposed Guidelines for Acorn Collection, Storage and Planting
Attachment D – Proposed Conceptual Layout for Acorn Planting with Protection
Attachment E – Proposed Guidelines for Planting Oak Seedling with Shelter
Attachment F – Conceptual Irrigation Layout and Guidelines for Irrigating Oak Seedlings and Acorns

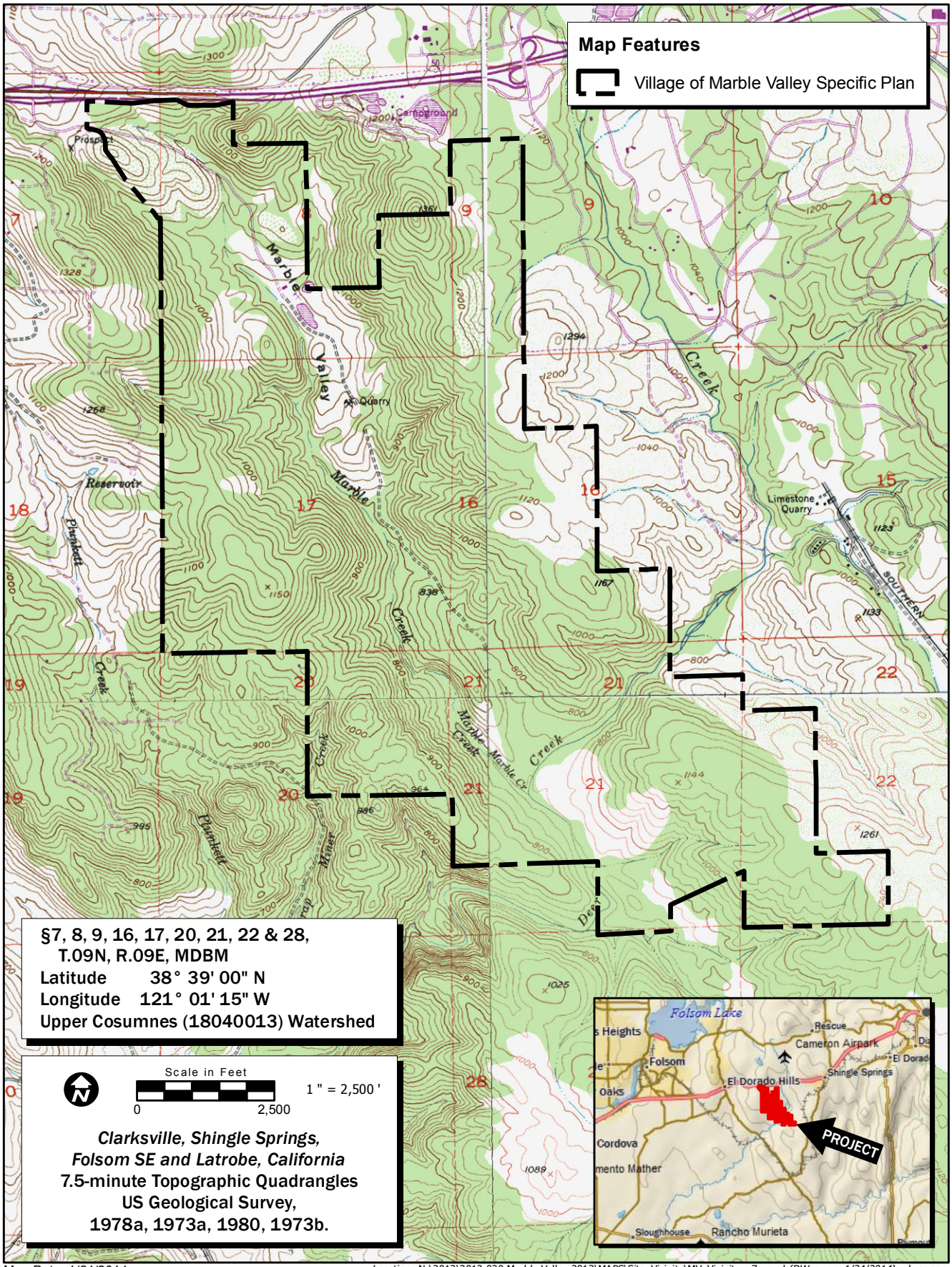
1.0 INTRODUCTION

At the request of the Marble Valley Company, LLC, ECORP Consulting, Inc. (ECORP) conducted a Biological Resources Study and created an Important Habitat Mitigation Plan to address oak tree impacts and proposed mitigation for the Village of Marble Valley Specific Plan (VMVSP) Project. The 2,341-acre VMVSP is part of a proposed regional community plan for specific infill properties within the El Dorado Hills and Cameron Park communities and is located south of Highway 50, east of Bass Lake Road and west of Cambridge Road in El Dorado Hills within El Dorado County, California (Figure 1. *Project Location and Vicinity*).

1.1 Project Location

The Project is located within Township 9 North, Range 9 East, Section 17 and portions of sections 7-9, 16, 20-22, and 28 on the "Clarksville", "Shingle Springs", "Folsom S.E.", and "Latrobe, California" 7.5-minute topographic quadrangles (U.S. Department of the Interior, Geological Survey 1978a, 1973a, 1980, and 1973b, respectively). The Project is located at approximately 38° 39' 00" North and 121° 01' 15" West within the Upper Cosumnes watershed (USGS Hydrological Unit Code [HUC] #18040013) (U.S. Department of the Interior, Geological Survey 1978b).

The proposed Development includes 3,236 dwelling units of low, medium, and high density residential (1-24 dwelling units per acre) on approximately 797 acres, and approximately 475,000 square feet of retail and commercial uses, two schools, public and private parks, and 40-50 acres of vineyards. More than 50% of the site (approximately 1,284 acres) would be designated as either Community Open Space or Foundation Open Space, hereafter collectively referred to as Open Space, with an extensive network of trails interconnecting the proposed land uses (Figure 2. *Land Use Plan*).



Map Date: 1/24/2014
Service Layer Credits: Copyright:© 2012 DeLorme

Location: N:\2012\2012-020 Marble Valley 2012\MAPS\Site_Vicinity\MV_Vicinity_v7a.mxd *(DWagnon, 1/24/2014)* - dwagnon

Figure 1. Project Location and Vicinity

2012-020 The Village of Marble Valley Specific Plan

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Scale in Feet

0 750 1,500

Specific Plan Boundary - 2341 ac.

Preferred Land Use Plan

- Village Residential Low (Custom Lots)
- Village Residential Low (Mass Pad Graded)
- Village Residential Medium
- Village Residential High
- Village Commercial
- Office Park
- Public School
- Agritourism
- Village Park
- Private Road
- Public Road
- Public Utility
- Detention Area
- Water
- Open Space

Location: N:\2012\2012-020 Marble Valley 2012\MAPS\Landuse\v2\VMVSP_LandUse_20131125.mxd (DW) -dwagnon 11/25/2013

Map Date: 11/25/2013

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Figure 2. Land Use Plan

2012-020 The Village of Marble Valley Specific Plan

1.2 El Dorado County Oak Woodland Mitigation Requirements

Forest and Oak Woodland Resources are protected by Objective 7.4.4 of the El Dorado County General Plan, which states:

> *Protect and conserve forest and woodland resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of sustainable flow or wood products, and aesthetic values.* (El Dorado County 2009)

Policy 7.4.4.4 of the General Plan (El Dorado County 2009) specifies that for projects that are over one acre in size and have at least 1% canopy cover by woodland habitats, two mitigation options are available: Option A) the project applicant shall adhere to the tree canopy retention and replacement standards; or Option B) the project applicant shall contribute to El Dorado County's (County) Integrated Natural Resources Management Plan (INRMP) conservation fund. As this fund is not currently available, use of Option B is not feasible and the applicant for the VMVSP Project is required to follow Option A.

Option A specifies canopy retention standards based on the percentage of existing canopy within the Project. The retention rates, as stipulated in the *Interim Interpretive Guidelines for Policy 7.4.4.4 (Option A)* (Guidelines) (El Dorado County 2009), (Attachment A) are as follows:

Percentage Existing Canopy Cover	Canopy Cover to be Retained
80-100	60% of existing canopy
60-79	70% of existing canopy
40-59	80% of existing canopy
20-39	85% of existing canopy
10-19	90% of existing canopy
1-9 for parcels > 1 acre	90% of existing canopy

A summary of the mitigation requirements of Option A as it relates to the Project is provided below:

1) 80% of the existing oak woodland canopy cover shall be retained (See Section 2.2 for methods on how this retention rate was determined).
2) Impact to on-site oak woodland habitat shall be replaced at a 1:1 canopy ratio, where the oak replacement area shall equal at minimum the total area of the oak canopy cover proposed for removal.
3) Replacement of removed tree canopy shall be at a 200 trees/acre density or as recommended by a Qualified Professional so that the replacement trees will equal the canopy coverage removed within 10 to 15 years from the date of planting.
4) The County defines trees as one-gallon saplings or three locally-sourced acorns. Replacement trees must be either one-gallon, locally-sourced saplings or locally-collected acorns that have been stored properly.
5) Replacement trees must be managed so that ten years after planting, one-gallon saplings will measure an average of at least two-inch Diameter at Breast Height (DBH) with a 90% survival rate.
6) One-gallon saplings shall be maintained and monitored for 10 years, and acorn plantings shall be maintained and monitored for 15 years. A combination of saplings and acorns shall be maintained and monitored for 15 years.
7) Trees must have a 90% survival rate over the required monitoring period.
8) Any trees in excess of the acceptable 10% mortality that do not survive during the monitoring period shall be replaced by the property owner.
9) An initial Site Assessment Form and Tree Survey, Preservation, and Replacement Plan must be prepared by a Qualified Professional and submitted to the County's Planning Services Division. The intent of the Site Assessment is to determine if any of the following are impacted:
    - landmark or heritage trees;
    - oak corridor continuity;
    - sensitive or important oak woodland habitats;
    - oak woodland within or directly adjacent to important biological resources; and
    - oak canopy removal that exceeds allowable amount.

If the Site Assessment determines that none of the above is impacted and retention/ replacement ratios are met, then a Biological Resources Study and Important Habitat Mitigation Plan (addressed below) may not be needed. If the Site Assessment shows that any of the above listed impacts are probable for a site (or at the County's discretion), impacts on woodland habitat and mitigation requirements shall be addressed in a Biological Resources Study and Important Habitat Mitigation Program that satisfies County requirements.

10) The *Biological Resources Study* is to be prepared by a Qualified Professional and is an evaluation of a Development that quantifies the amount of important habitat, by habitat type, and addresses the potential for the Development to adversely affect important habitat through conversion or fragmentation.
11) The *Important Habitat Mitigation Plan* is to be prepared by a Qualified Professional and should identify options that would avoid, minimize, or compensate for impacts on important habitats, including a monitoring and reporting component, and addresses "Certified Arborist Reports" and "Tree Protection Plans".
12) The Applicant shall enter into an agreement with the County for the long-term maintenance of the mitigation plantings.
13) Oak tree mitigation replacements must be completed prior to the Development's final grading or building inspection.

1.3 Purpose of This Study

Option A requires that the applicant prepares a Biological Resources Study and Important Habitat Mitigation Plan for the VMVSP, which will address oak woodland habitat impacts and mitigation. This document addresses both of these requirements.

The Biological Resources Study (Study) portion of this document was prepared by Debra Sykes [ECORP botanist and International Society of Arboriculture (ISA)-certified arborist (WE-8640A)] and does the following:

- documents the existing oak woodland and oak canopy habitat with the Project;
- presents proposed impacts to oak canopy with the current proposed land use plan;
- compares pre- and post-Development canopy cover;

- discusses the relative importance of the VMVSP oak woodland and oak canopy as habitat for regionally occurring wildlife species and as wildlife corridors; and
- discusses Project-related impacts on the remaining oak canopy.

The Important Habitat Mitigation Plan (Plan) portion of this document was prepared by Emily Tozzi [ECORP biologist and ISA-certified arborist (WE-10136A)] and addresses the following:

- How the VMVSP will conform to the requirements of Option A;
- Project avoidance, minimization, and/or compensation for impacts on important oak woodland habitats;
- Recommendations for tree protection during development; and
- Mitigation planting, monitoring, and reporting.

2.0 BIOLOGICAL RESOURCES STUDY

This Study identifies the existing oak woodland and oak canopy resources within the Project. Due to the quantity of oak trees within the Project, a traditional arborist survey (including tree inventory) was not conducted. Instead, a remote sensing-based canopy mapping approach was implemented. Oak woodlands were mapped as part of a vegetation community mapping exercise using aerial photographs and Light Detection and Ranging (lidar) data and total oak canopy was mapped using hyperspectral imaging and lidar technology.

2.1 Oak Woodland Habitat Resources

2.1.1 Vegetation Communities

2.1.1.1 Vegetation Communities Mapping Methods

Vegetation communities were digitized using a WACOM Cintiq 21UX DTZ-2100D LCD Pen Tablet and ArcView 10.1 onto a high-resolution 0.5-foot pixel, 1"=100' aerial photograph flown in April 2008 (Merrick and Company 2008). Additionally, lidar data were used to distinguish height classes of vegetation. This technique was used to delineate the white leaf manzanita chaparral

community. Plots of greater than 25 square feet where vegetation height was between two feet and nine feet tall were identified as the white leaf manzanita chaparral and polygons were digitized around these areas.

Additionally, lidar was used to calculate the density of canopy cover within each polygon. The vegetation community classification was based on the classification systems presented in *A Manual of California Vegetation* (Sawyer *et al.* 2009), *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), and *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer Jr. 1988).

2.1.1.2 Vegetation Communities Mapping Results

A total of seven vegetation communities were mapped within the VMVSP area (Figure 3. *Vegetation Communities*). Included within these vegetation communities are three communities that are dominated by oak trees: blue oak savannah (60 acres), open blue oak woodland (765 acres), and closed-canopy blue oak woodland (1,063 acres). These communities were delineated based on the following parameters:

- Blue Oak Savannah: 2 to 10% canopy coverage
- Open Blue Oak Woodland: 11 to 60% canopy coverage
- Closed-Canopy Blue Oak Woodland: >60% canopy coverage

In addition to these oak-dominated communities, occasional individual oak trees are also found within the other vegetation communities on-site.

The following sections provide a brief description of the of the three oak-dominated vegetation communities.

Map Features

- Specific Plan Boundary - 2341 ac.
- Wetlands and Other Waters of the U.S. - 40 ac.

Vegetation Communities

- Annual Grassland - 167 ac.
- Blue Oak Savannah - 60 ac.
- Open Blue Oak Woodland - 765 ac.
- Closed-canopy Blue Oak Woodland - 1063 ac.
- Valley Foothill Riparian - 26 ac.
- White Leaf Manzanita Chaparral - 208 ac.
- Disturbed/Developed - 13 ac.

Scale in Feet

0 800 1,600

Location: N:\2012\2012-020 Marble Valley 2012\MAPS\Vegetation\Vegetation\v2\Vegetation_v2_FullProp_11x17.mxd (DW)-dwagnon 12/13/2013

Map Date: 12/13/2013
Photo Source: NAIP (2012)

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Figure 3. Vegetation Communities

2012-020 The Village of Marble Valley Specific Plan

Blue Oak Savannah

Blue oak savannah was mapped where oak canopy cover is between 2% and 10%. This vegetation community supports primarily annual grassland vegetation with scattered blue oaks (*Quercus douglasii*) and Valley oaks (*Quercus lobata*). The annual grasslands are comprised primarily of non-native grasses and forbs, including false brome (*Branchypodium distachyon*), soft brome (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), slender wild oats (*Avena barbata*), Italian ryegrass (*Festuca perennis*), red stem filaree (*Erodium botrys*), hedgehog dog-tail grass (*Cynosurus echinatus*), and clovers (*Trifolium* species). Other species commonly observed in this community include bull thistle (*Cirsium vulgare*), yellow star-thistle (*Centaurea solstitialis*), brodiaeas (*Brodiaea* species), clarkias (*Clarkia* species), sticky tarweed (*Holocarpha virgata*), and medusahead grass (*Elymus caput-medusae*).

Open and Closed-Canopy Blue Oak Woodlands

Blue oak woodlands are the most extensive vegetation community within the Project. Two types of blue oak woodlands were mapped on-site: Open Blue Oak Woodland, which has 11% to 60% oak canopy cover, and Closed-Canopy Blue Oak Woodland, which has greater than 60% oak canopy cover.

Both of these woodlands support similar plant species. The canopy of both of these blue oak woodlands is almost exclusively comprised of blue oak; however, Interior live oak (*Quercus wislizenii*), Valley oak, black oak (*Quercus kelloggii*), California buckeye (*Aesculus californica*), and gray pine (*Pinus sabiniana*) occasionally occur. Common understory shrubs within the blue oak woodlands include toyon (*Heteromeles arbutifolia*) and poison-oak (*Toxicodendron diversilobum*). The herbaceous understory of the blue oak woodland is primarily dominated by non-native, naturalized grasses, including hedgehog dog-tail grass, ripgut brome, soft brome, false brome, goat grass (*Aegilops triuncialis*), and slender wild oat. Other common species in the understory of the blue oak woodlands include spring vetch (*Vicia sativa*), rose clover (*Trifolium hirtum*), twining brodiaea (*Dichelostemma volubile*), and hedge parsley (*Torilis arvensis*).

2.1.2 Oak Canopy

2.1.2.1 Oak Canopy Mapping Methods

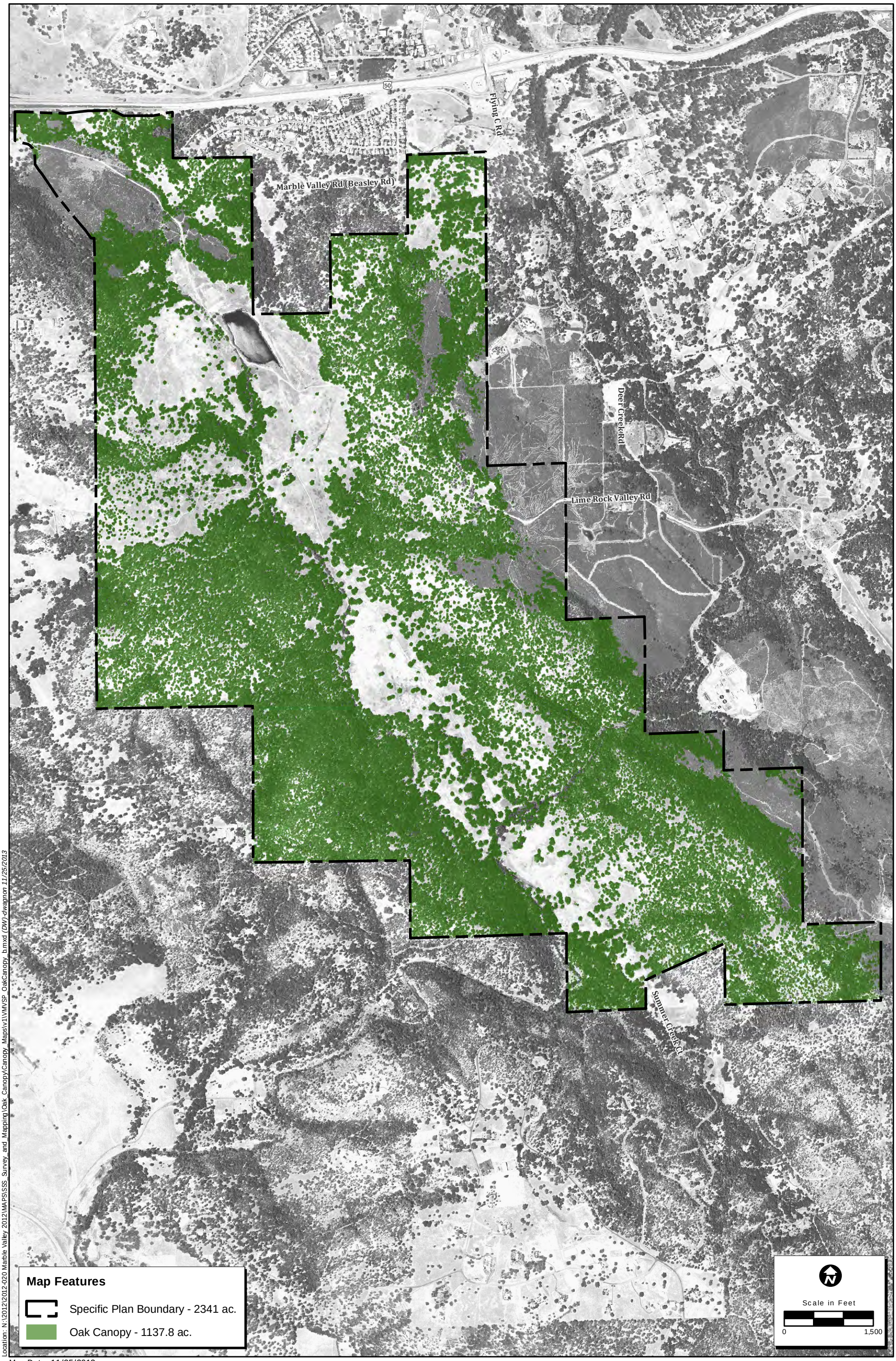
Oak canopy was mapped using both hyperspectral imaging and lidar technology in ArcGIS Advanced with the Spatial Analyst Extension. These techniques mapped the location and canopy area of native oak trees and other vegetation types on the Project. As part of this process, a 155-band hyperspectral imager was utilized to identify the spectral signatures of specific vegetation types and the lidar sensor recorded the precise location and size of different clusters of vegetation. Vegetation greater than five feet tall was considered to be tree canopy.

Once tree canopy areas were identified, a supervised classification was used to establish canopy type. Potential canopy types included oak, riparian, chaparral, and other vegetation. The imagery-based canopy model was then supplemented by the use of tree canopy heights established by lidar to help determine oak tree locations in mixed canopy areas. Results were groundtruthed by ECORP botanists and arborists.

Generally, single type vegetation clusters (e.g., oak or chaparral) were correctly identified. Mixed species clusters, primarily riparian area with some oak trees, were more difficult to classify. These areas were checked against high resolution orthophotos and oak tree canopy was identified and separated from other vegetation. Finally, oak canopy was extracted from the vegetation data, field verified, and quantified.

2.1.2.2 Oak Canopy Mapping Results

Across the entire 2,341-acre VMVSP, a total of 1,137.8 acres of oak canopy cover was mapped (Figure 4. *Oak Tree Canopy*). Oak canopy accounts for 49% of the total cover for the entire Project area.



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Map Date: 11/25/2013
Photo Source: NAIP (2012)

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Figure 4. Oak Tree Canopy

2012-020 The Village of Marble Valley Specific Plan

2.2 Impact Analysis

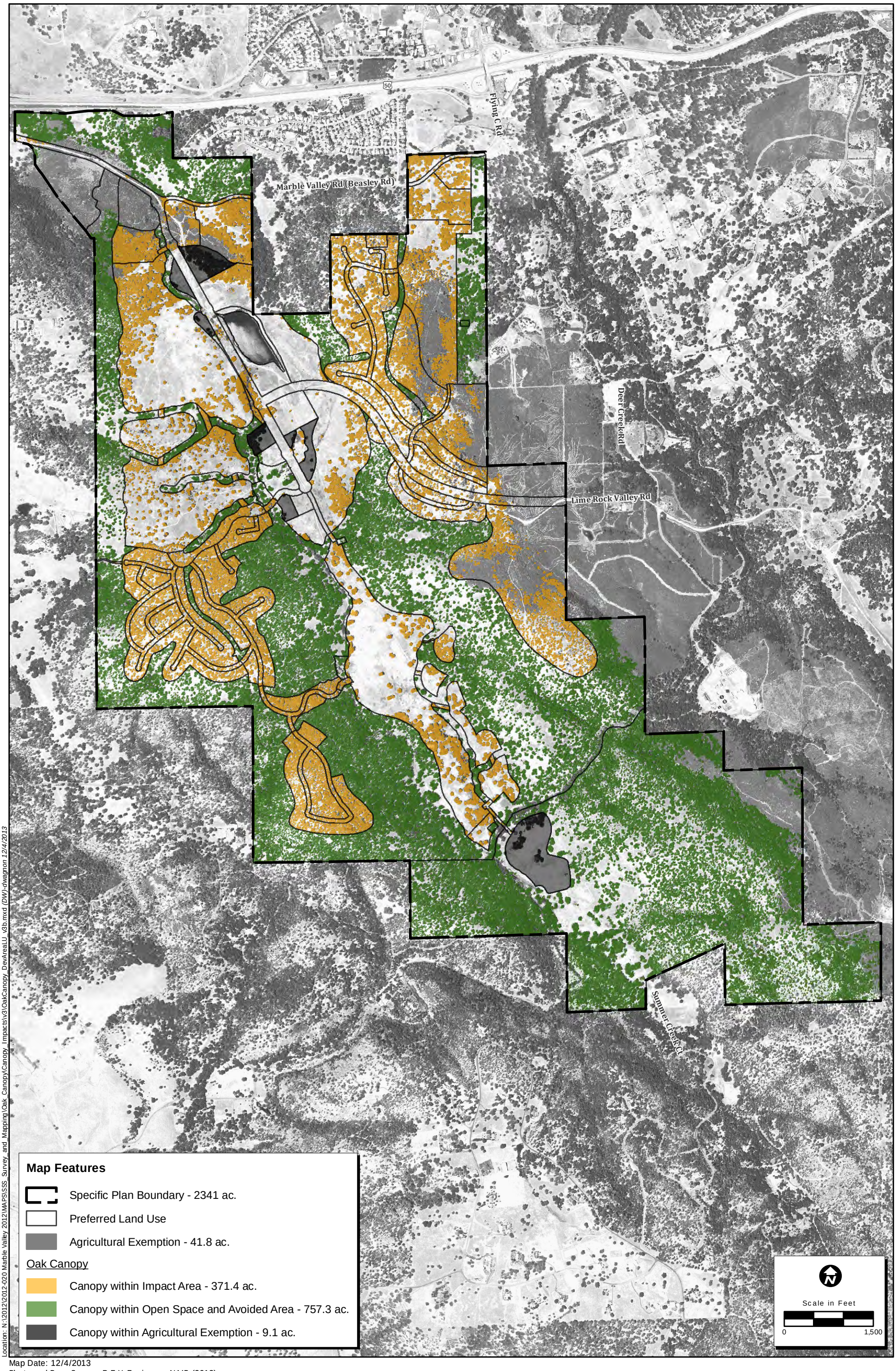
2.2.1 Oak Canopy Impacts

A total of 1,137.8 acres of oak canopy occurs within the VMVSP Project. This accounts for 49% of the total vegetative cover for the entire Project. Therefore, based on the canopy retention rates stipulated in the Guidelines (El Dorado County 2009) and summarized in Section 1.2 of this document, the Project is required to avoid 80% and allowed to impact 20% (227.6 acres) of oak canopy.

The current preferred development footprint is only a portion of the Project area. Of the 1,137.8 acres of oak canopy within the entire VMVSP project, 371.4 acres of oak canopy occurs within the development footprint (Figure 5. *Oak Canopy Impact Areas*). As the project is allowed 227.6 acres of impacts, avoidance measures have been incorporated into the various project design elements in order to meet the 20% impact threshold. Depending on the project element within the footprint (e.g., road, residential lot, park), it is estimated that a certain percentage of oak canopy will be retained. The following list shows examples of project elements and the target oak canopy retention rates determined for that element:

Target Oak Retention Rate	Example Project Elements
100%	Open Space, Detention Areas
75%	Residential (Custom Lots), Park
40%	Minor Roads, Crossings
20%	Office Park
17%	Residential (Pad Graded)
15%	School
10%	Park (Joint Use With School)
0%	Major Roads, Commercial

Based on the proposed project elements, Table 1 summarizes the total oak canopy acreage, target retention rate, and impact acreage for different project element types based on the proposed retention rates, and (Figure 6. *Oak Canopy Retention*) illustrates the locations of these retention rates within the Project design. Actual retention rates may vary for each of the proposed project elements as development of the Specific Plan progresses, but shall not exceed the maximum impact acreage allowed under Option A (227.6 acres).



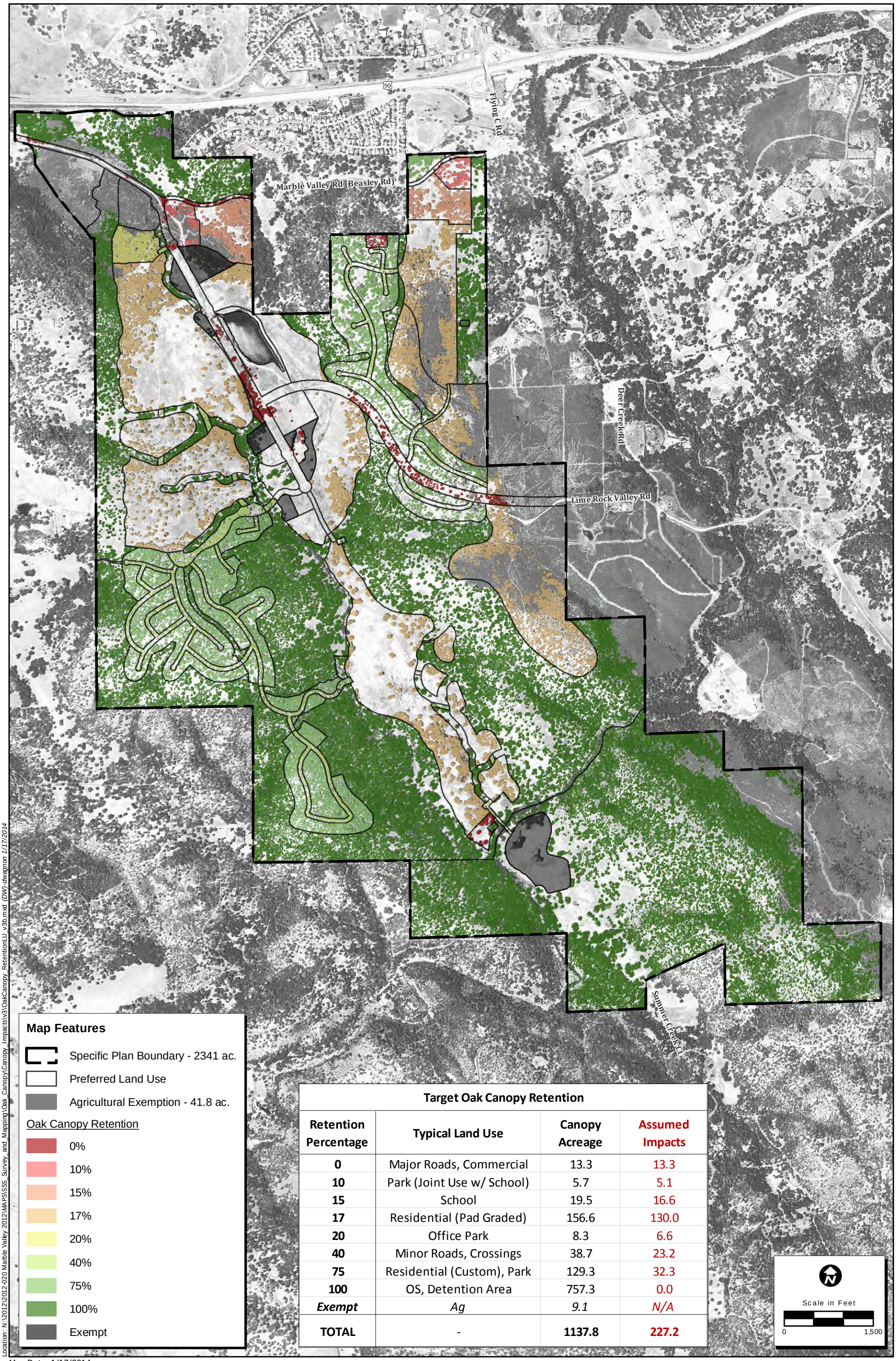
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Map Date: 12/4/2013
Photo and Base Source: R.E.Y. Engineers, NAIP (2012)

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Figure 5. Oak Canopy Impact Areas

2012-020 The Village of Marble Valley Specific Plan



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Map Date: 1/17/2014

Photo and Base Source: R.E.Y. Engineers, NAIP (2012)

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Figure 6. Oak Canopy Retention

2012-020 The Village of Marble Valley Specific Plan

If the County amends its oak woodlands retention regulations in the future, additional impacts and mitigation to the oak woodlands may occur subject to any required CEQA analysis.

Table 1 – Summary of Approximate Oak Canopy Retention within the Project Area

Project Element	Percent Retention	Total Canopy Acreage	Proposed Impact Acreage
Open Space, Detention Basins	100%	757.3	0
Residential (Custom)	75%	129.3	32.3
Minor Roads, Crossings	40%	38.7	23.2
Recreation/Commercial	20%	8.3	6.6
Residential (Pad Graded)	17%	156.6	130.0
School	15%	19.5	16.6
Park (joint use with School)	10%	5.7	5.1
Major Roads, Commercial	0%	13.3	13.3
Agricultural Exemption Area	EXEMPT	9.1	N/A
TOTAL		**1,137.8**	**227.2***

*Values are calculated in square feet, and then converted to acres. Rounding errors may occur.

After incorporating these retention rates to the oak canopy impact acreages, total project related impacts to oak canopy are 227.2 acres which complies with the canopy retention rates stipulated in the Guidelines. Table 2 compares pre- and post-Project oak canopy cover within the Project area.

Table 2 – Pre- and Post-Project Oak Canopy Cover

Project Phase	Oak Canopy (acres)
Pre-Project	1,137.8
Post-Project	910.6*

** This total does not include mitigation plantings discussed in Section 3.0 below*

2.3 Oak Woodland Corridors

2.3.1 Importance of Oak Woodland and Corridors

Oak woodland habitats are one of the most ecologically diverse communities within California, and oak trees provide a number of ecological services within the landscape including, but not limited to, shade, shelter, erosion protection, and food (McCreary 2011) for birds, mammals, reptiles, and amphibians. Acorns, leaves, sap, and wood provide food while the trees themselves provide microhabitats, shelters, and living places for wildlife species (McCreary 2011). Larger mammals such as deer, bears and mountain lions depend on larger, intact landscapes in order to thrive.

Urbanization and development within the oak woodland communities of California has caused fragmentation of existing oak woodlands. As woodlands become fragmented into smaller and smaller pieces, the essential landscape linkages for larger wildlife species become rarer, and the quality and health of the oak woodlands diminishes over time. Appropriately designed developments that retain the majority of oak canopy can continue to provide corridors and linkages between larger intact woodlands.

2.3.2 Impacts to Oak Woodland and Corridors within the Villages of Marble Valley Specific Plan

As conceptually designed, the VMVSP Project will impact 227.2 acres of oak canopy within the Project area, but may impact 227.6 acres as allowed by Option A. This represents 20% of the total oak canopy within the Project area, and complies with Option A of General Plan policy 7.4.4.4. The majority of the development is occurring within the northern two-thirds of the site, and the project has been designed to avoid large tracts of unfragmented oak woodland and preserve wildlife corridors. These areas will remain undeveloped to protect the habitat for many wildlife species. Nearly the entire edge of the Development footprint will not be disturbed and will provide approximately 300 to 500 feet of oak woodland buffer and wildlife corridors around the edge of the development footprint. The 300- to 500-foot buffer also acts as a transition to the neighboring 5-acre residential estates that surround the Marble Valley project site and support additional wildlife movement. In addition, the custom residential lots in the southwestern and northeastern corners of the site will retain 75% or more of the oak canopy within this area. It is expected that woodland animals would still use these parcels as corridors for migration. The entire south-eastern portion of the Project Area is designated as Open Space and provides a highly suitable corridor for wildlife species between the east and west sides of the Project and to the woodlands adjacent to the Project to the south.

A Wildlife Corridor study was conducted by Sierra Ecosystems Associates (2010) for El Dorado County which identified the importance of north-south wildlife corridors throughout the County. In addition, the report identified the Bass Lake Road undercrossing as one of the few remaining wildlife crossings to the north of Highway 50. With more than half of the Project conserved as open space and development areas clustered to minimize impacts to oak woodlands, large expanses of habitat remain for the protection of species. The design of the land plan includes

the riparian corridors of Deer Creek and Marble Creek to allow for the continued movement of species. Moreover, the entire western edge of the Plan Area provides a 300- to 500-foot north-south open space buffer that is restricted from development so that wildlife connectivity to the Bass Lake Road undercrossing remains uninterrupted (Figure 7. *Wildlife Corridors*).

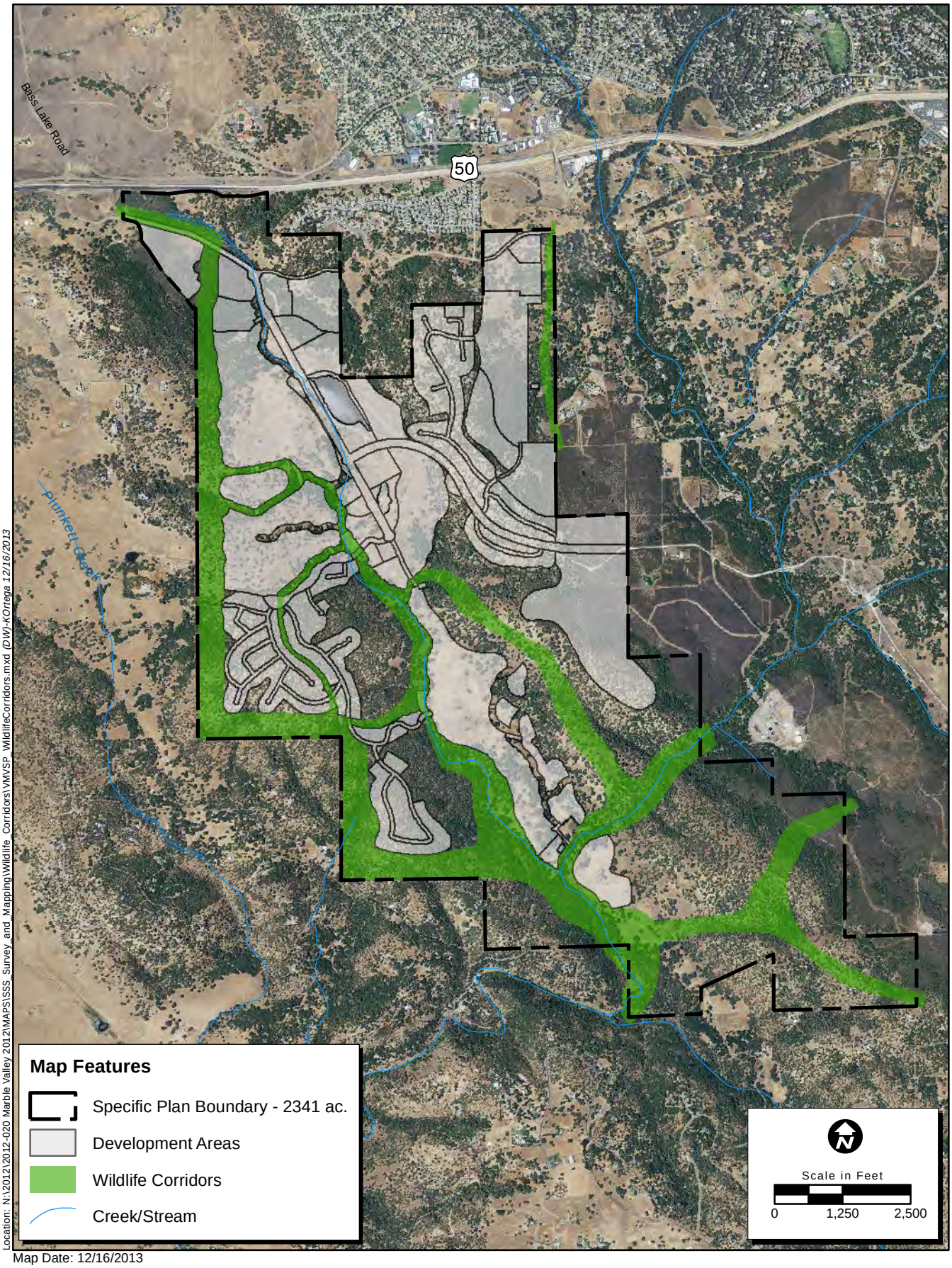
2.3.3 Post-Construction Oak Woodlands

Given the large intact oak woodlands that will be present after construction of the Project and the connectedness of the patches of woodland, no long-term effects to either the oak trees or the plants and wildlife that live within the woodlands are expected.

As part of the mitigation for the Project, oak tree plantings and acorn plantings will occur within designated oak replacement areas within the Open Space areas, within temporarily graded areas along roads, and within public spaces and residential areas. Additional oak plantings will occur to enhance the already existing oak woodland by incorporating this habitat type into the development. These trees will add to the overall quantity of oak canopy and further provide habitat for wildlife species (see Section 3.0 for more details regarding mitigation plantings).

2.4 Conclusions

The VMVSP has been designed to maximize oak woodland protection through a variety of methods. It has an extensive open space network that occurs in more than 50% of the plan area. It incorporates minimization measures to retain most of the oak canopy within the development footprint and avoids the disruption of large, intact open space areas. In total, the Project is impacting 20% of the existing oak canopy, and leaving intact large swaths of mature oak woodlands. These woodlands also have the highest density of oak trees within the Project area. The Project design allows for contiguous oak woodland habitat, including several large, intact woodlands to support wildlife. The large, intact woodlands provide suitable habitat for large mammals that require larger tracts of undisturbed land.



Location: N:\2012\2012-020 Marble Valley 2012\MAPS\SSS_Survey_and_Mapping\Wildlife_Corridors\VMVSP_WildlifeCorridors.mxd (DW)-KOrtega 12/16/2013

Map Date: 12/16/2013
Photo Source: NAIP (2012)

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Figure 7. Wildlife Corridors

2012-020 The Village of Marble Valley Specific Plan

In addition to the avoidance and retention measures, the Project plans to mitigate for oak canopy loss by planting new oak trees and acorns within on-site oak replacement areas, temporarily impacted areas (i.e., graded slopes), off-site planting areas and select locations within the development parcels. These mitigation measures are discussed in more detail in Section 3.0. The proposed oak mitigation will provide additional habitat, especially for birds that may use these trees as nesting and/or foraging habitats or as corridors to more intact woodlands. Overall, the VMVSP Project will continue to provide high quality oak woodlands to support regionally occurring wildlife species.

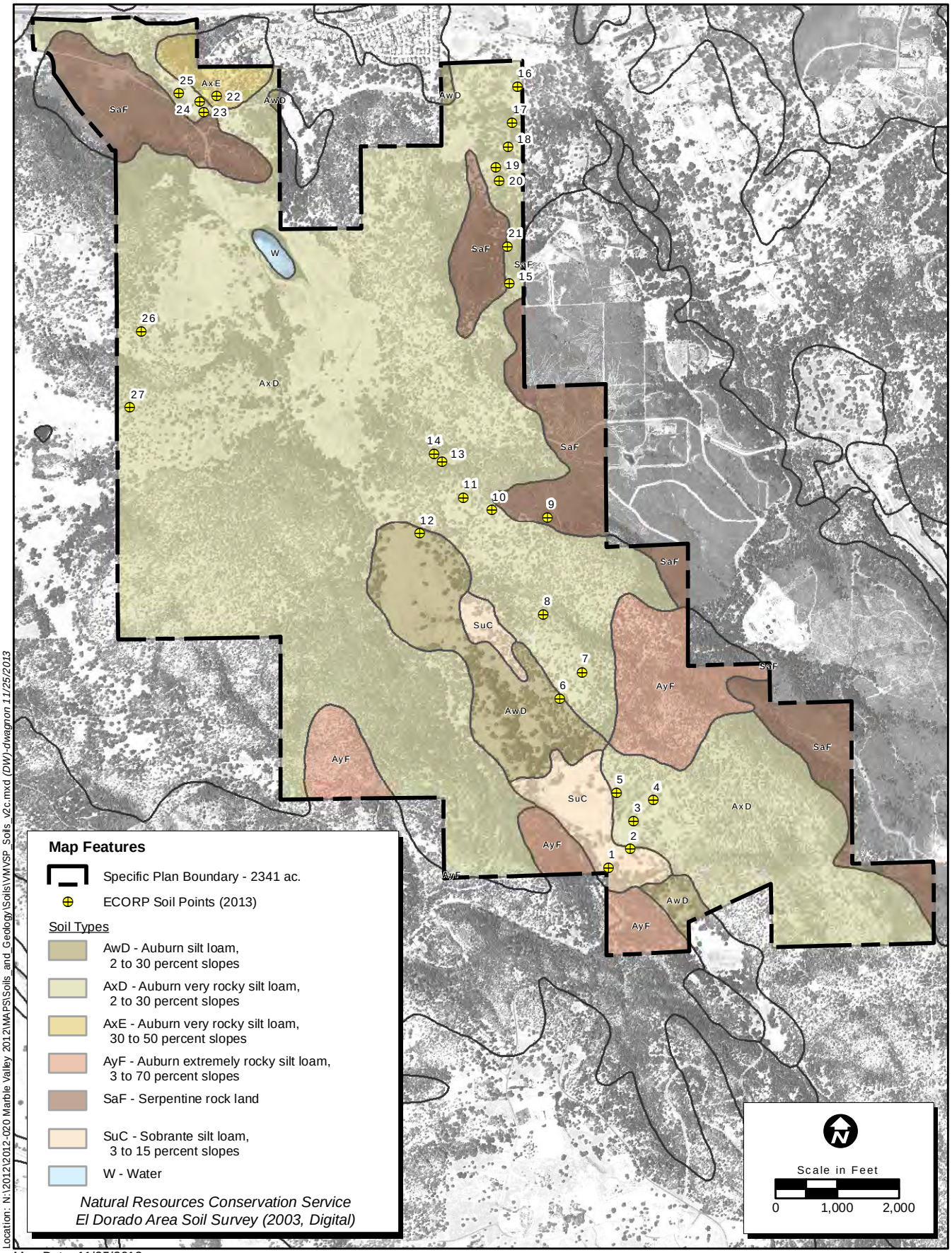
3.0 IMPORTANT HABITAT MITIGATION PLAN

This Plan identifies the mitigation measures that will be used by the Project to provide sufficient protection to oak tree resources. It contains an on-site and off-site mitigation assessment that details where oak trees can be planted within mitigation areas, mitigation measures to be used by the Project, and information on mitigation monitoring success criteria and reporting.

3.1 Potential On-Site Oak Mitigation Assessment

An oak mitigation assessment was conducted to establish the potential for on-site oak planting within the Project area. Prior to conducting field surveys, aerial photos of the 2,341-acre VMVSP area overlain with the current land use plan (Figure 2) and Natural Resources Conservation Service (NRCS) soil map units (Figure 8. *Natural Resources Conservation Service Soil Types*) were reviewed by Tara Collins (ECORP Senior Botanist) and Emily Tozzi (ECORP biologist and ISA-certified arborist). Open Space areas within the VMVSP area that appeared to have appropriate soils and lacked dense canopy cover were identified as potential oak mitigation areas.

On 29 January and 1 February 2013, Ms. Collins and Ms. Tozzi conducted field surveys in 27 previously-identified potential oak mitigation areas to determine oak mitigation suitability. These 27 locations represented a subsample of areas identified as potential oak mitigation sites. At each location, soils were analyzed to validate soil data on NRCS soil maps and soil series descriptions (Figure 8. and Attachment B).



Map Date: 11/25/2013
Photo Source: NAIP (2012)

Figure 8. Natural Resources Conservation Service Soil Types

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In addition photos facing the four cardinal directions were taken. Each location was mapped using a GPS unit with sub-meter accuracy. Within each of the potential areas, the following data were collected:

- Existing vegetation and canopy cover
- Slope and aspect
- Soil data including texture, color, and horizonization
- Potential for irrigation from the Development

These data were used to determine site-specific potential for oak tree mitigation. For each site, the appropriate oak tree species and planting type (i.e., acorn, sapling) were determined based on the following:

1) West facing slopes with shallow, rocky soils will be the most difficult for successful oak mitigation establishment, especially if irrigation is not possible.
2) Many hillslope summits and shoulderslopes will not be suitable for oak mitigation because of the high concentration of large rock outcrops.
3) Areas with very rocky, steep hillsides and/or shallow soils are only appropriate for acorn plantings.
4) Valley oaks (*Quercus lobata*) are more suited for deeper floodplain soils with higher clay contents.
5) Blue oaks (*Quercus douglasi*) are well suited for shallow, rocky soils found on hillsides and summits.
6) Interior live oaks (*Quercus wislizenii*) are suitable for floodplains and rockier hillsides as this species tends to establish in areas with Valley and blue oaks.
7) Areas with existing dense canopy are not considered appropriate for oak mitigation.

After an analysis of the available data (e.g., soil maps and descriptions, existing conditions), a suitability determination was made for each of the previously identified potential oak mitigation areas. All suitable areas were mapped using ArcGIS software and acreages were calculated. Approximately 184.4 acres were identified as suitable oak mitigation areas within the VMVSP. Planting areas are discussed in more detail in Section 3.3.1.

3.2 Mitigation Measures

3.2.1 Conservation Measures

The Project has incorporated various conservation measures into its design to minimize impacts to oak woodland habitat. The following is a summary of these measures:

- Overall, up to 20% (227.6 acres) of oak woodland canopy will be impacted during Project development.
- In total, 1,284 acres of Open Space will provide regional protection of the biological resources through reducing habitat fragmentation by maintaining Open Space corridors, retaining animal dispersal corridors and migratory pathways, and preserving as much contiguous habitat as possible, consistent with the County's General Plan.
- The Project as designed does not contain and is not located directly adjacent to designated Important Biological Corridors or Ecological Preserve areas, and is not anticipated to have impacts on the aforementioned areas.
- The Project has been designed and clustered to minimize impacts and reduce habitat fragmentation.
- As required by regulatory agencies, Project activities will be planned to avoid critical time periods (i.e., nesting and breeding) for fish, birds, and other wildlife species. If construction must occur during a critical time period, then the appropriate biological surveys will be conducted. If it is determined that Project activities could have negative impacts on a species, then the appropriate agencies will be consulted and protective measures will be employed to mitigate the impacts.
- To limit disturbance and impacts to biological resources, infrastructure elements such as bridges, roads, utilities, and pipelines will be placed within previously disturbed locations, where feasible.
- Oak woodland restoration or enhancement will be conducted to mitigate for losses to oak forest canopy and to enhance the ecological value of Open Space areas.
- Contiguous stands of oak woodland habitat and the corridors connecting the stands will be retained (see Figure 7). In addition, the Project, as designed, preserves and provides access to the Bass Lake Road undercrossing, which has been identified as one of the few remaining wildlife corridors under Highway 50.

- A Stormwater Pollution Presentation Plan (SWPPP) will be prepared prior to ground-breaking activities to determine the most appropriate Best Management Practices (BMPs) for reducing impacts from construction activities.
- The project developer will prepare lot notebooks for each custom lot, which limit the development area for the placement and construction of primary and ancillary structures.
- To minimize impacts on custom lots, the Covenants, Conditions, and Restrictions (CC&R) Design Guidelines will set forth special design and construction measures to minimize impacts to oak trees, such as limiting excessive pad grading through the use of raised foundations, piers, post and beam construction and other similar measures, to the maximum extent feasible.
- In addition to the County's site plan review and approval procedures, the Architectural Control Committee of the Master Owners' Association will review and approve site and improvement plans for custom lots prior to ground-disturbing activities.

3.2.2 Tree Preservation Measures

Construction, planting and irrigation contractors will be made aware of existing trees and shrubs to be preserved and will take precautions to protect such vegetation from damage. Whenever possible, irrigation lines will avoid the drip line of existing trees and shrubs. Equipment, construction materials, fuels, and tools will not be stored within the drip line of the trees or shrubs to be preserved.

The following measures will be implemented to protect and minimize effects to preserved trees that are adjacent to construction activities.

- If necessary, pruning, cabling, and other corrective measures for preserved trees will be specified by an ISA-Certified arborist, and will conform to pruning standards of the ISA.
- Each tree or group of trees to be preserved within one foot of the drip line of ground disturbance will be protected with a fence or other acceptable methods, such as warning tape, indicating grading limits prior to any grading or movement of

heavy equipment. Grading limit line demarcation should be removed following construction, and prior to installation of landscaping material.

- Signs will be posted on all sides of grading limit lines surrounding an individual tree or group of trees stating that each tree is to be preserved.
- Prior to construction, awareness training will be conducted for all construction personnel regarding the importance of the oak woodlands, the locations of preserved trees within the vicinity of the construction area and preservation measures that are in place to protect them.
- To the extent possible no landscaping requiring permanent irrigation will be installed within the drip line of any preserved heritage or landmark tree, and to the extent possible, run-off, particularly from landscape irrigation, will be directed away from the root zone.
- Excavating and/or trenching within the drip line of trees (or a distance of half the drip line, outside of the drip line) will be avoided whenever practicable. However, if unavoidable, any authorized cut or fill occurring within the drip line of any preserved tree should be supervised by an ISA-Certified arborist.
- Any and all exposed roots will be covered with a protective material during construction.
- Native tree replacement will be used to mitigate the removal of native trees within the area, subject to approval by the County.
- Procedures and protocols for tree preservation and protection will comply with standards established by the County.
- Oak trees required to be planted as a condition of construction will be maintained after completion of construction according to this Plan.

3.3 Proposed Revegetation and Restoration Plan

3.3.1 Required Oak Replacement

Option A requires that the oak replacement area shall equal, at a minimum, the total area of the oak canopy cover proposed for removal. As conceptually designed, a total of 227.2 acres (and potentially up to 227.6 acres) within the Project are proposed for impact. Therefore,

Option A requires that 227.2 acres (and potentially up to 227.6 acres) are planted as oak replacement. ECORP identified 184.4 acres within the Open Space areas as potential oak mitigation within the Open Space areas. However, with the existing oak canopy, only 135.2 acres are considered plantable space. To comply with the replacement requirements specified in Option A, additional mitigation is proposed for the remaining 92 acres of replacement canopy. This includes additional on-site planting within temporarily impacted areas (i.e., graded slopes) and off-site plantings. If additional mitigation is needed for the additional 0.4 acre of potential impacts allowed under Option A, than new planting areas will be identified.

In addition to the mitigation required under Option A, the applicant proposes to do additional oak tree replacement and plantings within certain land use types (e.g., custom residential lots, low and medium residential lots). These plantings will be a requirement of the proposed Design Guidelines to be developed and adopted for each use and enforced through the Project's CC&R's. All four of these mitigation types are discussed in more detail below.

3.3.1.1 On-Site Oak Replacement Area

Within the VMVSP Open Space areas, ECORP identified approximately 184.4 acres of oak replacement areas (Figure 9. *Potential Oak Mitigation Areas*). However, only 135.2 acres are considered plantable space given the existing oak canopy; within these 135.2 acres of plantable space, four classes of species and planting type were established, based on site suitability:

- Class 1 - blue/live oak acorns (±50 acres);
- Class 2 - a combination of blue/live oak saplings and/or acorns (±48 acres);
- Class 3 - black/live oak saplings(±0.5 acres); and
- Class 4 - Valley/live oak saplings (±37 acres).

Approximately 50.2 acres are suitable for blue/live oak acorns (Class 1). The majority of Class 1 locations are within the Open Space areas in the south-central portion of the Project area. In general, acorn plantings are ideal for rocky soils where digging is difficult. These areas contain large rock outcrops, steep slopes, and shallow, rocky soils. If supplemental irrigation is feasible, it is recommended to ensure survivorship of the acorns.

Unsuitable: Existing Density

Unsuitable: Existing Density

Unsuitable: Poor Soils

Unsuitable: Existing Density

Unsuitable: Poor Soils

Unsuitable: Rock Outcrops

Unsuitable: Existing Density & Distance to Development and Water Sources

Map Features

- Specific Plan Boundary - 2341 ac.
- ECORP Soil Points (2013)

Preferred Land Use Plan

- Developed Area
- Public Park
- Vineyard

Potential Oak Mitigation Areas

- Class 1: Blue/Live Oak Acorns
- Class 2: Blue/Live Oak Acorns or Plantings
- Class 3: Black/Live Oak Acorns or Plantings
- Class 4: Valley/Live Oak Acorns or Plantings

	Total Area*	Plantable Area*
1: Blue / Live Oak Acorns	70.8	50.2
2: Blue / Live Oak Acorns or Plantings	63.0	47.6
3: Black / Live Oak Acorns or Plantings	0.5	0.3
4: Valley / Live Oak Acorns or Plantings	50.2	37.0
Total	**184.4**	**135.2**

Scale in Feet

0 1,500

Location: N:\2012\2012-020 Marble Valley 2012\MAPS\SSS_Survey_and_Mapping\Oak_Canopy\Canopy_Impacts\v3\OakCanopy_Plantings_v3b.mxd (DW)-KOrtega 12/16/2013

Map Date: 12/16/2013

Photo and Base Source: R.E.Y. Engineers, NAIP (2012)

*Note: Rounding errors may occur in acreage tables.

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Figure 9. Potential Oak Mitigation Areas

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Oak saplings are suitable for soils with fewer, smaller rocks and where water is available for irrigation. In these areas, acorns can also be planted. Areas that are suitable for either saplings or acorns are classified as Class 2, and there are approximately 47.6 acres scattered around the site within this classification.

Approximately 0.3 acre was identified as suitable for black/live oak saplings (Class 3). This was one small area in the northeast corner of the Project. Approximately 37 acres are suitable for Valley/live oak saplings (Class 4). These areas are scattered within the Open Space areas within the central part of the Project area. Areas that are suitable for Class 4 included low gradient areas and/or areas adjacent to creek channels where there tends to be deep soils with higher soil-water content.

3.3.1.2 On-Site Temporarily Impacted Areas

The Project, as currently designed, will have ±43 acres of temporarily impacted areas (i.e., graded slopes) that are proposed as oak mitigation areas to partially mitigate for oak impacts. The graded slopes will likely have water available for irrigation, making them appropriate for live plantings (Class 2).

3.3.1.3 Off-Site Mitigation

Approximately 58.5 acres of potential oak mitigation areas have been identified within the open space areas on the Serrano Development and Central El Dorado Hills Specific Plan (CEDHSP) located less than two miles from the site. Following the same methodology described in Section 3.1 for the on-site oak replacement areas, ECORP conducted a study to determine potential oak mitigation areas within the off-site area. Based on the results of the study, approximately 57.6 acres are considered plantable space within the potential oak mitigation areas given the existing oak canopy. Approximately 48.3 acres were identified for Class 2 plantings and ±9.3 acres were identified for Class 4 plantings (Figure 10. *Potential Off-Site Oak Tree Mitigation Areas for the Village of Marble Valley Specific Plan*). While only 49 acres of additional mitigation areas are needed to comply with Option A, ECORP identified a total of 57.6 acres of plantable space. The off-site planting areas will be refined as needed to comply with the mitigation requirement.



	Total Area	Plantable Area
2: Blue / Live Oak Acorns or Plantings	49.2	48.3
4: Valley / Live Oak Acorns or Plantings	9.3	9.3
Total	**58.5**	**57.6**

Location: N:\2012\2012-020 Marble Valley 2012\MAPS\SSS_Survey_and_Mapping\Oak_Canopy\Canopy_Impacts\v3\OakCanopy_MVOffsiteCEDHSP_v3b.mxd *(DW)-dwagnon 1/24/2014*

Map Date: 1/24/2014
Photo Source: USGS (2011)

Figure 10. Potential Off-Site Oak Tree Mitigation Areas for The Village of Marble Valley Specific Plan

2012-020 The Village of Marble Valley Specific Plan

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3.3.1.4 On-Site Replacement and Additional Plantings.

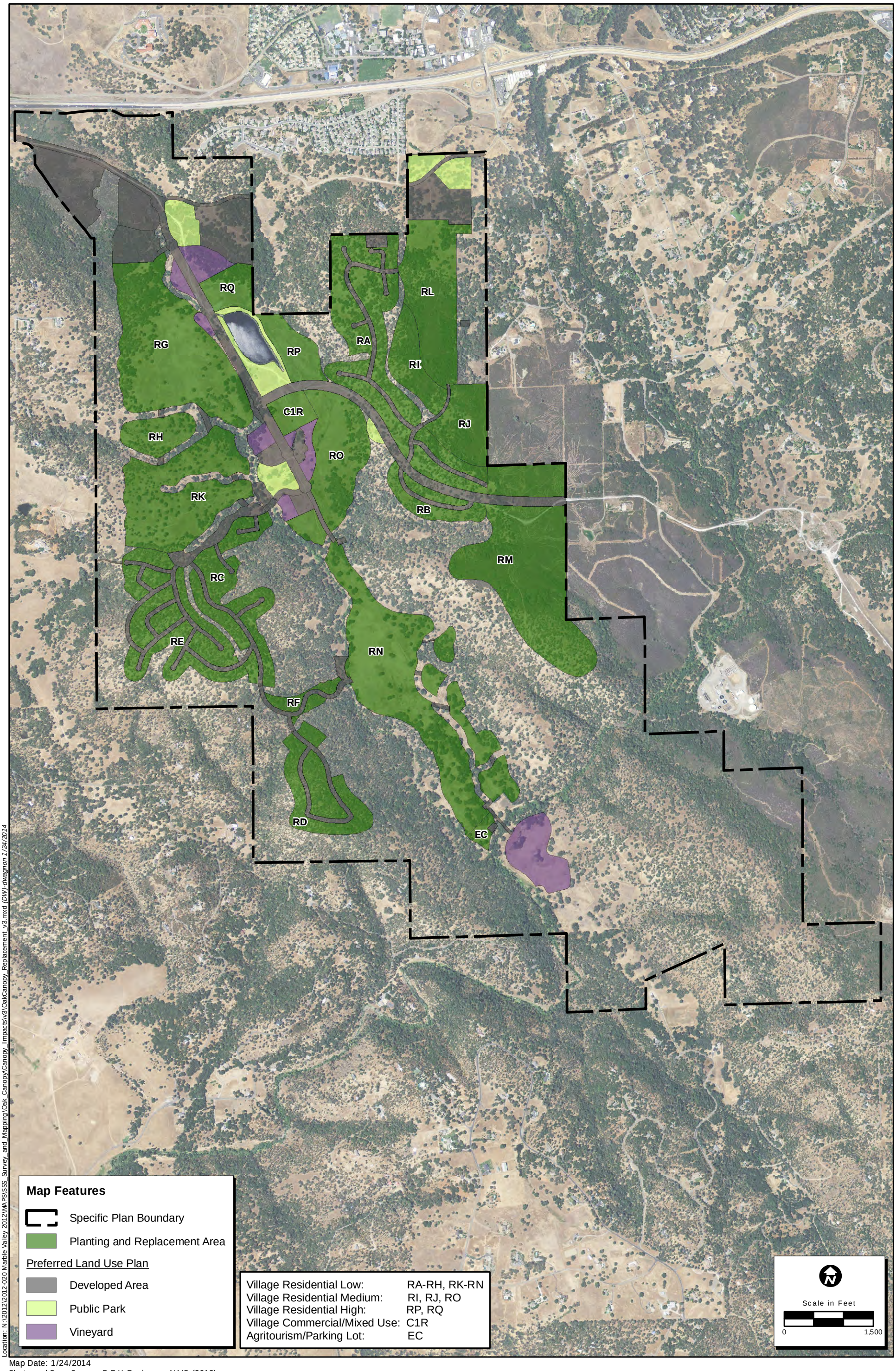
Within several of the proposed land use types, the project design has incorporated minimization measures to reduce the amount of oak impacts (Figure 11. *On-Site Planting and Replacement Areas*). For example, within the custom residential lots, grading and tree removal will only occur within the construction footprint for the proposed house, driveway and limited ancillary features. In addition, the Project proposes to plant a replacement tree for each tree removed within the footprint at a 1:1 ratio. All replacement plantings will occur within the same lot as the original tree removal. As a result, the lot will have at minimum the same number of trees after construction is completed and in time a similar acreage of oak canopy.

In addition there will be oak tree plantings that will be required within each individual pad graded lot as well as for all multi-family attached product types. These minimum oak plantings will be required for both front and rear yards for single family detached lots, as well as a defined percentage of the common areas for attached type products. Commercial and other non-residential common areas will also be required to plant a certain percentage of oak trees.

Based on tentative lot design, it is anticipated that 5,995 trees will be replanted or planted within the proposed residential development areas. The applicant is proposing a credit of 0.5:1 for these trees and this credit will be applied to the final number of replacement trees that are required for the project. Section 3.3.2 discuses planting amounts in more detail and how this credit would apply.

3.3.2 Planting Types and Amounts

Option A requires that the replacement of removed tree canopy shall be at a density of 200 trees/acre or as recommended by a qualified professional. The County defines a replacement tree as either a one-gallon sapling or three acorns.



Location: N:\2012\2012-020 Marble Valley 2012\MAPS\SSS_Survey_and_Mapping\Oak_Canopy\Canopy_Impacts\v3\OakCanopy_Replacement_v3.mxd (DW)-dwagnon 1/24/2014

Map Date: 1/24/2014
Photo and Base Source: R.E.Y. Engineers, NAIP (2012)

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Figure 11. On-Site Planting and Replacement Areas

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A total of 227.2 acres of oak canopy are required to be planted, based on the current conceptual design for the Project. At a rate of 200 trees/acre, a total of 45,440 one-gallon saplings or 136,320 acorns are required as mitigation for these impacts. However, the project may impact up to 227.6 acres as allowed by Option A. The above values give perspective on the number of saplings or acorns needed to meet the requirements of Option A, and there will be a combination of saplings and acorns used at the site as determined by the four Classes previously described. In addition, the plantings will be completed in a phased manner consistent with the phased approach of the Project.

Tables 3, 4, and 5 below, show the planting class and available acres for the class within each mitigation type (on-site replacement area, temporarily impacted area, and off-site mitigation area) based on an impact of 227.2 acres. The total number of acorns and/or saplings is also shown based on the density requirements of Option A (i.e., 200 trees per acre with one sapling or three acorns equaling one tree). The totals presented are based on the total plantable acreage within the three mitigation sites, which encompass more acreage than is needed to comply with Option A.

Table 3 – On-Site Replacement Areas - Oak Mitigation Plantings

Planting Class	On-site Oak Replacement Area (acres)	# of acorns/saplings
Class 1: Blue/Live Oak Acorns	50.2	30,120 acorns
Class 2: Blue/Live Oak Saplings or Acorns	47.6	9,520 saplings[1]
Class 3: Black/Live Oak Saplings	0.3	60 saplings
Class 4: Valley/Live Oak Saplings	37.0	7,400 saplings
Total	**135.2**	**30,120 acorns/ 16,980 saplings**

[1]Assumes irrigation is available and only saplings are planted.

Table 4 – Temporarily Impacted Areas - Oak Mitigation Plantings

Planting Class	Temporarily Impacted Areas (acres)	# of acorns/saplings
Class 1: Blue/Live Oak Acorns	--	
Class 2: Blue/Live Oak Saplings or Acorns	43.0	8,600 saplings[1]
Class 3: Black/Live Oak Saplings	--	
Class 4: Valley/Live Oak Saplings	--	
Total	**43.0**	**8,600 saplings**[1]

[1]Assumes irrigation is available and only saplings are planted.

Table 5 – Off-Site Potential Oak Mitigation Areas		
Planting Class	**Off-site Oak Mitigation Area (acres)**	**# of acorns/saplings**
Class 1: Blue/Live Oak Acorns	--	
Class 2: Blue/Live Oak Saplings or Acorns	48.3	9,660[1]
Class 3: Black/Live Oak Saplings	--	
Class 4: Valley/Live Oak Saplings	9.3	1,860[1]
Total	**57.6**[2]	**11,520**[2]

[1] Assumes irrigation is available and only saplings are planted.
[2] While a total of 57.6 acres of potential off-site mitigation areas were identified, only 49 acres are required for the project to comply with Option A. The applicant will plant only what is required to comply with Option A.

Mitigation for the Project will be conducted in a phased manner and detailed phasing plans, as they become available, will be submitted to the County as part of each Tentative Map (for most projects) or grading permit (for infrastructure projects, as an example).

As mentioned in Section 3.3.1.4, additional mitigation will occur in the form of oak replacement and plantings within the Custom Residential Lots and within the Residential (low density, medium density and high density) and Mixed Used Commercial land use. Based on calculations of anticipated impacts, a total of 5,995 trees will be planted or replaced within these lots.

The applicants are proposing a credit of 0.5:1 for these trees and this credit will be applied to the final number of replacement trees that are required for the project. Based on a total oak canopy impact of 227.2 acres for the current conceptual design, the project has to plant, 45,440 trees. At a 0.5:1 ratio, the credit for the replacement trees equals 2,998 trees. The applicant is proposing this credit be subtracted from the final sapling requirement. Therefore, the applicant would be required to plant 42,402 trees within the above mentioned mitigation areas. If the total oak impacts increase to 227.6 acres, the applicant is required to plant 45,520 trees under Option A. With the credit applied, the applicant would plant 45,522 trees.

3.3.3 Planting Installation and Maintenance

3.3.3.1 Timing and Phasing

Option A requires that oak mitigation is completed prior to final grading or building inspection, and it also requires a high success rate for mitigation plantings. To promote the highest success rate, it is important to properly install and maintain the mitigation plantings, and protect them from ground disturbing activities. As such, this plan proposes that grading will be completed and utilities installed prior to on-site oak tree mitigation planting in order to provide the greatest protection of the replacement trees. To ensure sapling health, irrigation will be needed to supplement plant growth, but may not be feasible in many cases without an existing utility system in place. Irrigation is unnecessary (but recommended) for acorns and these may be planted prior to grading.

The installation and irrigation of the plantings will be concurrent with Project phasing. The project proposes to overplant by at least 10% as contingency for potential mortality within the monitoring period. Project phasing will be contingent on market conditions and focus on providing the most appropriate product at the time of construction. The Applicant will determine the project phasing with the submittal of each small lot tentative map or similar discretionary application that proposes impacts to the oak canopy. At the discretionary permit stage, applicants will submit a Tree Survey, Preservation and Replacement Plan to the County that will identify landmark/heritage trees, and oak impacts on a phase-by-phase basis, provide details on the mitigation plantings (saplings or acorns), and identify specific planting areas associated with that phase of development.

For replacement trees and additional plantings that will occur in the custom lots, individual pad graded lot and multi-family attached product types, the installation of the plantings will occur after construction is completed on a given pad.

3.3.3.2 Maintenance

Proper maintenance of the oak trees within the oak mitigation areas within the first few years will be critical, especially for acorn plantings, as invasive annual grasses are known to out-compete young plants. The trees will receive, at a minimum, twice yearly maintenance as needed which should include applications of supplemental mulch and fertilizer, weeding around the plantings, and incidental litter removal, as needed. Maintenance should occur regularly during the first five years after planting. For trees receiving irrigation, monthly checks of the irrigation system during the dry season and irrigation system repairs, as necessary, should occur.

For replacement trees and additional plantings that will occur in the custom lots, individual pad graded lot and multi-family attached product types, maintenance will be enforced through the projects CC&R's, and the Homeowners Association will oversee the maintenance, care requirements and replacement of dead trees within these areas.

3.3.4 Irrigation Schedule

Irrigation is necessary for the one-gallon plantings to survive. Plantings will be irrigated for a minimum of three years. While irrigation is not required for acorns, it is recommended in order to ensure a higher survival rate. Supplemental irrigation for acorns will be provided, where possible, during summer months. For irrigation of saplings, a recommended irrigation schedule is outlined in Table 6, but will be adjusted as needed after plantings are installed to account for site-specific soil conditions.

Table 6 – Irrigation Schedule for Oak Plantings

Duration	**April 15 – September 30**	**October 1 – April 15**
Year 1	8 gallons, once/7-10 days	Irrigation off
Year 2	10 gallons, once/14-20 days	Irrigation off
Year 3	10 gallons, once/21-30 days	Irrigation off
Year 4	Monitor	Discontinue system

** Recommended schedule. Actual schedule will depend on the weather pattern of a given year.*

Irrigation will be gradually decreased and finally eliminated during the monitoring period to ensure that the plantings will have long-term survival without irrigation. Irrigation will deliver deep, infrequent watering and will typically take place between April 15 and September 30 of each year. This will be adjusted for seasonal variations if a year is particularly hot earlier or later in the year.

If after the third year it is determined that irrigation of the plantings should continue, then adjustments will be made accordingly to the irrigation schedule in Table 6. The irrigation system should remain in place until the end of the monitoring period. At the end of the monitoring period, the above-ground irrigation equipment can be removed. Irrigation should be timed to allow a minimum of one year of monitoring after irrigation has ceased.

Acorn collection, storage and Planting will occur according to Attachment C. Plant installation and establishment will follow conceptual plans described in Attachment D, Attachment E, and Attachment F. These detail installation timing, design, and planting as well as irrigation for planting and acorns.

3.4 Mitigation Monitoring and Reporting

3.4.1 Monitoring Schedule

Option A requires that one-gallon plantings shall be maintained and monitored annually for ten years, acorn plantings shall be maintained and monitored for 15 years, and a combination of plantings and acorns shall be maintained and monitored for 15 years. The Project will be developed in a phased manner. Therefore, the required oak mitigation will also be phased based on the impacts for a given phase of development.

For replacement trees and additional plantings that will occur in the custom lots, individual pad graded lot and multi-family attached product types, maintenance will be enforced through the projects CC&R's, and the Homeowners Association will oversee the maintenance, care requirements and replacement of dead trees within these areas.

3.4.2 Monitoring Methods

Planted trees within oak mitigation areas will be monitored to ensure that success criteria are met. A representative sampling of vigor, height, and canopy diameter for each tree species will be conducted. Vigor will be based on qualitative comparisons to on-site conditions of leaf turgor, stem caliber, leaf color, and foliage density. Monitoring will be conducted over a 10 to 15-year period starting the year after initial installation.

Monitoring protocol will involve locating all previously numbered trees and shrubs to determine their survivorship, estimating height, assessing overall condition/health, and measuring DBH and drip line radius.

Plant condition will be ranked according to the following scale:

- Good - healthy foliage and vigorous growth;
- Fair - healthy foliage, but minimal apical growth;
- Poor - few green leaves present and no apparent apical growth; or
- Dead.

Plant height will be measured in feet and plants grouped according to the following height intervals:

- Less than two feet;
- Two feet to five feet; or
- Greater than five feet.

Calculated results will include the total number of plantings monitored, the condition and height class of each plant found, annual survival rate, and cumulative survival rate. The annual survival rate is calculated according to the following formula:

$$\text{Annual Survival Rate (\%)} = \frac{\text{total \# alive during survey}}{\text{total \# alive in previous season}} \times 100$$

The cumulative survival rate was calculated according to the following formula:

$$\text{Cumulative Survival Rate (\%)} = \frac{\text{total \# alive during survey}}{\text{required plantings}} \text{ X } 100$$

For replacement trees and additional plantings that will occur in the custom lots, individual pad graded lot and multi-family attached product types, maintenance will be enforced through the Project's CC&R's, and the Homeowners Association will oversee the maintenance, care requirements and replacement of dead trees within these areas.

3.4.3 Success Criteria

Option A requires that the canopy density achieved by the replacement oaks in the oak mitigation areas must match that of the canopy that was removed by the end of 15 years. Achieving the original canopy density within 15 years will be challenging regardless of whether acorns or saplings are planted because the majority of the potential oak mitigation area was most suitable for blue oaks. Blue oaks grow slower than the other oak species (i.e., live, Valley, and black oaks). Faster-growing species of oaks could be planted in these locations, but they are not likely to be successful or persist in these locations. Regardless of oak species, the canopy density of the replacement oaks will be impracticable to measure after 15 years of growth. For this reason, success will be defined by survival rates rather than canopy cover. Option A stipulates a 90% survival rate for planted trees. To achieve success with a 90% survival rate, overplanting will occur. The Project will overplant by 10% to ensure the 90% survival rate is achieved.

The proposed final success criterion and replanting criterion for the mitigation oak plantings is shown in Table 7.

Table 7 – Proposed Success and Replanting Criteria for Oak Plantings

1)	Plantings must have an 90% cumulative total survival rate at the end of the ten to fifteen year monitoring period for saplings and acorns, respectively.
2)	Replanting must occur within one year of the cumulative survival rate dropping below 90%, and new plants will be monitored for an additional 15-year period.

For replacement trees and additional plantings that will occur in the custom lots, individual pad graded lot and multi-family attached product types, maintenance will be enforced through the Project's CC&R's, and the Homeowners Association will oversee the maintenance, care requirements and replacement of dead trees within these areas.

3.4.4 Reporting

An annual mitigation monitoring report documenting tree locations, a description of the planting areas, tree survivorship, an evaluation of the success rating per success criteria assessment, and a report concerning any necessary maintenance, complete with photographs taken at distinct photo points, will be submitted to the County by December 1 of each year for a ten-year period for plantings and a 15-year monitoring period for acorns. This will include all oak plantings within the oak mitigation areas. Additionally, the monitoring report will include recommendations for action during the following years as specified in this document for the Project (e.g., reporting requirements, replacement criteria for replantings). The first report shall be submitted approximately one year after planting.

The provisions of the monitoring program shall be placed into a standard "Notice of Restriction" document and recorded on the title of the property. Once the 10 to 15 years of monitoring has been successfully completed, the County may record a release of the Notice of Restriction.

For replacement trees and additional plantings that will occur in the custom lots, individual pad graded lot and multi-family attached product types, maintenance will be enforced through the Project's CC&R's, and the Homeowners Association will oversee the maintenance, care requirements and replacement of dead trees within these areas.

3.5 Funding Mechanism

Funding mechanisms (i.e., endowments, performance bonds, HOA fees) for the installation, monitoring, maintenance, and replacement of failed plantings that may be needed during the required 10- to 15-year monitoring period will be provided in, or appended to the final draft of

this report prior to the first small lot of tentative maps. Additionally, the financially responsible party, including name, address, telephone number, and email (if available), will be identified.

3.6 Findings and Recommendations

Based on the oak canopy retention and impact analysis, the 2,341-acre Project has 1,137.8 acres of oak canopy, and will be impacting 227.2 acres of oak canopy as the project is currently designed. However, the Project may impact up to 227.6 acres and still meet the 80% oak canopy retention requirement of Option A.

Four mitigation options have been proposed for the Project to mitigate for the 227.2 acres of impact as currently designed. First, approximately 135.2 acres of oak restoration areas have been identified as plantable space within the Open Space areas within the Project. A combination of saplings and acorns will be planted in these areas. Second, an additional 43 acres within the Development area will be temporarily impacted (i.e. graded slopes), and will be used for oak mitigation saplings and/or acorns after grading and utility installation is complete. The remaining 49 acres of required mitigation will occur within proposed oak tree mitigation areas at the off-site Serrano property or the proposed Central El Dorado Hills Specific Plan Project area. Finally, in addition to these mitigation measures, the applicant proposes on-site oak replacement within certain land use types where canopy retention rates are already high (e.g., custom residential lots). Replacement will occur at a 1:1 ratio and plantings will occur within the same lot where impacts will happen. Also, additional oak plantings will be required within the individual pad graded lot and multi-family attached product types. The applicant proposes a partial credit (0.5:1) towards the final number of required plantings for these replacement and additional trees.

The Project will be built in phases and the oak mitigation will follow this phased approach. Once grading has occurred and utilities have been installed within the Project, on-site oak plantings will occur, utilizing the previously discussed phased approach. Installing the plantings after initial phase build-out will reduce disturbance and ultimately lead to higher survival rates. The Project will comply with the 90% survival rate at the end of the 10-15 year monitoring period. To achieve this, the Project will overplant by at least 10% to ensure a 90% survival

rate at the end of the monitoring period. Additionally, if the survival rate drops below 90%, replacement trees will be added the following year.

With proper protection of preserved trees during construction, installation and maintenance of plants within the appropriate planting sites, and the ability to provide necessary irrigation, the mitigation measures outlined in this Plan should sufficiently minimize impacts and protect existing oak woodlands and associated biological resources as required by the County General Plan.

4.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this Biological Resources Study and Important Habitat Mitigation Plan, and that the facts, statements, and information presented herein are true and correct to the best of my knowledge and belief.

SIGNED: Hal Freeman DATED: 01/24/14

5.0 REFERENCES

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LIST OF ATTACHMENTS

Attachment A – Interim Interpretative Guidelines for El Dorado County General Plan Policy 7.4.4.4 (Option A)

Attachment B – Natural Resources Conservation Service Descriptions for Soils Observed During Field Surveys

Attachment C – Proposed Guidelines for Acorn Collection, Storage and Planting

Attachment D – Proposed Conceptual Layout for Acorn Planting with Protection

Attachment E – Proposed Guidelines for Planting Oak Seedling with Shelter

Attachment F – Conceptual Irrigation Layout and Guidelines for Irrigating Oak Seedlings and Acorns

ATTACHMENT A

Interim Interpretative Guidelines for El Dorado County General Plan Policy 7.4.4.4 (Option A)

INTERIM INTERPRETIVE GUIDELINES FOR EL DORADO COUNTY GENERAL PLAN POLICY 7.4.4.4 (OPTION A)

ADOPTED NOVEMBER 9, 2006
AMENDED OCTOBER 12, 2007

BACKGROUND

The adopted 2004 El Dorado County General Plan, Conservation and Open Space Element provides for the conservation and protection of soils, minerals, water, wildlife and fisheries, vegetation, cultural resources, and open space. Policies adopted in this element serve to guide the design of new development to meet these objectives. Policy 7.4.4.4 (Option A), reproduced below, addresses oak canopy retention standards. These Guidelines are intended to clarify the scope and implementation of Option A of this policy and provide for a process to consider limited modifications to oak canopy replacement and retention requirements for existing legal parcels if necessary to ensure reasonable use of those parcels. Option B (Mitigation Fee) will be available upon completion of the Oak Woodland Management Plan (OWMP) and related fee studies and implementing ordinances.

OBJECTIVE 7.4.4: FOREST AND OAK WOODLAND RESOURCES

Protect and conserve forest and woodland resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.

Policy 7.4.4.4

For all new development projects (not including agricultural cultivation and actions pursuant to an approved Fire Safe Plan necessary to protect existing structures, both of which are exempt from this policy) that would result in soil disturbance on parcels that (1) are over an acre and have at least 1 percent total canopy cover or (2) are less than an acre and have at least 10 percent total canopy cover by woodlands habitats as defined in this General Plan and determined from base line aerial photography or by site survey performed by a qualified biologist or licensed arborist, the County shall require one of two mitigation options: (1) The project applicant shall adhere to the tree canopy retention and replacement standards described below; or (2) the project applicant shall contribute to the County's Integrated Natural Resources Management Plan (INRMP) conservation fund described in Policy 7.4.2.8.

Option A
The County shall apply the following tree canopy retention standards:

Percent Existing Canopy Cover	Canopy Cover to be Retained
80–100	60% of existing canopy
60–79	70% of existing canopy
40–59	80% of existing canopy
20–39	85% of existing canopy
10-19	90% of existing canopy
1-9 for parcels > 1 acre	90% of existing canopy

- Under Option A, the project applicant shall also replace woodland habitat removed at 1:1 ratio.
- Impacts on woodland habitat and mitigation requirements shall be addressed in a Biological Resources Study and Important Habitat Mitigation Program as described in Policy 7.4.2.8.
- Woodland replacement shall be based on a formula, developed by the County, that accounts for the number of trees and acreage affected.

Note: For purposes of implementing these guidelines, "tree canopy" retention shall mean oak tree canopy retention and replacement of "woodland habitat" shall mean replacement of oak canopy.

DEFINITIONS

For the purposes of these Guidelines, the following words and phrases shall have the meanings respectively ascribed to them by this section:

1:1 Woodland Replacement (Replacement Land Area/Replacement Tree/Replacement Acorn-Density Ratio): Replacement of removed tree canopy shall be at a 200 trees (saplings or one gallon trees) per acre density or as recommended by a qualified professional. Replacement is subject to intensive to moderate management[1] and 10 to 15 years of monitoring, respectively. The survival rate shall be 90 percent as specified in the approved monitoring plan for the project, prepared by a qualified professional. Acorns may be used instead of saplings or one gallon trees. If acorns are used, they

[1] Management intensity assumes that 10 years after planting 1 year old saplings that trees that have been nurtured with high management intensity will be on average 2 inches DBH with 90 percent survival; moderate management intensity will result in trees that are on average 1.5 inches DBH with 85 percent survival. See Standiford et al 2002.

shall be planted at a 3:1 ratio as determined by the tree replacement formula[2]. The replacement is as follows:

- Replacement replanting from saplings or one-gallon trees, that are locally sourced, shall follow this formula for ratios:

  (Replacement Area in acres) x 200 trees per acre = the total number of replacement trees to be replanted

- Replacement replanting by acorn shall be from locally-sourced acorns (acorns gathered locally). The replacement ratio by acorn replanting shall be obtained by the following formula:

  (Replacement Area in acres) x (200 trees per acre) x (3 acorns per tree) = the total number of acorns to be replanted

Agricultural Conversion: As defined by General Plan Policy 7.1.2.7.

Agricultural Cultivation/Operations: As defined by General Plan Policy 8.2.2.1.

Agricultural Lands: As defined by General Plan Policies 2.2.1.2 and 8.1.1.8, and further, Policy 8.2.2.1.

Arborist: A person certified by the International Society of Arboriculture (I.S.A.) or other recognized professional organization of arborists that provides professional advice and licensed professionals to do physical work on trees in the County.

Biological Resources Study and Important Habitat Mitigation Program: The Biological Resources Study is an evaluation of a project site that quantifies the amount of important habitat, by habitat type, and addresses the potential for the project to adversely affect important habitat through conversion or fragmentation. The Important Habitat Mitigation Program identifies options that would avoid, minimize, or compensate for impacts on important habitats in compliance with General Plan policies 7.4.4.4 and 7.4.5.2, including a monitoring and reporting component (General Plan 2004 Measure CO-U). The Important Habitat Mitigation Program includes components which address "Certified Arborist Reports" and "Tree Protection Plans". The Biological Resources Study and Important Habitat Mitigation Program shall be prepared by a qualified professional. See separate guidelines for detailed requirements.

CDF: California Department of Forestry.

[2] McCreary DD. 2001. *Regenerating rangeland oaks in California*. Berkeley (CA): University of California, Agriculture and Natural Resources. Communication Services Publication #21601. 62 p.

Construction/Disturbance Area: Any area in which movement of earth, alteration in topography, soil compaction, disruption of vegetation, change in soil chemistry, and any other change in the natural character of the land occurs as a result of site preparation, grading, building construction or any other construction activity.

Diameter at breast height (Dbh): The measurement of the diameter of the tree in inches, specifically four (4) feet six (6) inches above natural grade on the uphill side of the tree. In the case of trees with multiple trunks, the diameter of all stems (trunks) at breast height shall be combined to calculate the diameter at breast height of the tree.

Fire Safe Plan: Defined by the El Dorado County Department of Forestry Guidelines (http://www.co.el-dorado.ca.us/building/PDF/Booklets/Fire_safe_regs.pdf), and the CDF General Guidelines for Creating Defensible Spaces (http://www.bof.fire.ca.gov/pdfs/4291finalguidelines2_23_06.pdf), and as defined by Goal 6.2 Fire Hazards of the Public Health, Safety, and Noise element of the General Plan.

Given Unit of Land: The land contained within the project site. If the project site, prior to any proposed land division, is comprised of multiple parcels, the parcels may be treated as a single given unit of land for the purpose of calculating oak canopy cover and retention requirements.

Habitat: The physical location or type of environment in which an organism or biological population lives or can be found (General Plan 2004).

Heritage trees: Trees planted by a group or individuals or by the City or the County in commemoration of an event or in memory of a person figuring significantly in history (General Plan 2004).

Important Habitat: Defined as habitats that support important flora and fauna, including deer winter, summer, and fawning ranges and migration routes; stream, river, and lakeshore habitat; fish spawning areas; seeps, springs, and wetlands; oak woodlands; large expanses of native vegetation; and other unique plant, fish, and wildlife habitats generally located within or adjacent to designated Ecological Preserves, the Important Biological Resource Corridor Overlay, or in other locations otherwise recognized as being important habitat by Federal, State or County agencies.

Landmark Tree: Trees whose size, visual impact or association with a historically significant structure or event has led the government to designate them as landmarks (General Plan 2004).

Licensed engineers and land surveyors: Professionals that are licensed by the California Board for Professional Engineers and Land Surveyors.

Oak Canopy Cover: The area directly under the live branches of the oak trees, often defined as a percent, of a given unit of land.

Oak Woodlands: A given unit of land, with one or more groupings of live trees, where the dominant species (i.e. a plurality) of the live trees within the groupings are native oaks (genus quercus). "Stand" means a group or groupings of trees.

Oak woodlands with oak tree canopy coverage of less than 10 percent of the project site for parcels one acre or less in size, or oak woodlands with oak tree canopy coverage of less than 1 percent on parcels of land that are more than one acre in size, are **not** subject to the oak tree canopy cover retention requirements of Policy 7.4.4.4 Option A.

Protected Trees: Trees of the genus quercus (oak trees), landmark, and heritage trees, which are subject to County review pursuant to General Plan Policies 7.4.4.4, 7.4.5.1, and 7.4.5.2.

Qualified Professional: An arborist certified by the International Society of Arborists, a qualified wildlife biologist, or a registered professional forester (RPF).

Qualified Wildlife Biologist: A professional with a BA or BS or advanced degree in biological sciences or other degree specializing in the natural sciences; professional or academic experience as a biological field investigator, with a background in field sampling design and field methods; taxonomic experience and knowledge of plant and animal ecology; familiarity with plants and animals of the area, including the species of concern; and familiarity with the appropriate county, state, and federal policies and protocols related to special status species and biological surveys.

Registered Professional Forester (RPF): A Registered Professional Forester (RPF) is a person licensed by the State of California to perform professional services that require the application of forestry principles and techniques to the management of forested landscapes. RPFs have an understanding of forest growth, development, and regeneration; soils, geology, and hydrology; wildlife and fisheries biology and other forest resources. RPFs are also trained in fire management and, if involved in timber harvesting operations, have expertise in both forest road design and application of the various methods used to harvest timber (California Licensed Foresters Association).

Removal: The physical destruction, displacement or removal of a tree, or portions of a tree caused by poisoning, cutting, burning, relocation for transplanting, bulldozing or other mechanical, chemical or physical means.

Replacement: See 1:1 Woodland Replacement definition.

Self Certification: Acknowledgment by an applicant constructing a single-family dwelling or accessory structures and appurtenances to a single-family dwelling that the removal

of oak trees not otherwise in compliance with these interim guidelines and Policy 7.4.4.4, is in compliance with General Plan Policy 7.1.2.2 and are therefore exempt from the provisions of Policy 7.4.4.4 as "reasonable use."

Sensitive Habitat: In El Dorado County, this includes the following habitat types: montane riparian, valley-foothill riparian, aspen, valley oak woodland, wet meadow, and vernal pools (General Plan EIR).

Tree Survey, Preservation, and Replacement Plan: A plan that identifies trees at the project site, shows how specific trees shall be protected during development and related work, and includes any required mitigation measures and ensures viability of trees after construction. A Tree Survey, Preservation, and Replacement Plan is a stand-alone report, and is also included as part of an Important Habitat Mitigation Program. The plan shall be prepared by a qualified professional. See separate guidelines for requirements.

Woodland Habitats: Biological communities that range in structure from open savannah to dense forest. In El Dorado County, major woodland habitats include blue oak-foothill pine, blue oak woodland, montane hardwood, montane hardwood-conifer, and montane riparian.

Guidance for Application of Policy 7.4.4.4:

1. Trees subject to canopy retention and replacement – Policy 7.4.4.4 is intended to apply exclusively to retention and replacement of oak canopy within oak woodlands. All oak trees, of all sizes, are included in the measurement of oak canopy.

   Any oak tree canopy, landmark or heritage trees, including native oak trees that do not qualify for review as oak woodland under Policy 7.4.4.4 may be subject to review under Policy 7.4.5.2.

2. Minimum oak canopy area – The oak canopy retention requirements of Policy 7.4.4.4 are intended only to apply to:

   a. Parcels greater than 1.0 acre that contain 1 percent or more oak canopy cover; or

   b. Parcels 1.0 acre or smaller that contain 10 percent or more oak canopy cover.

3. Exceptions to oak canopy retention/replacement requirements – Policy 7.4.4.4 intends that the following activities are not subject to oak canopy cover retention or replacement requirements:

a. Agricultural cultivation/operations, whether for personal or commercial purposes, on land planned (AL, NR, RR, and Agricultural Districts [-A]) or zoned (AE, AP, A, PA, SA-10, RA, TPZ, and MR) for agricultural use per Policy 2.2.1.5 (Table 2-4 General Plan Land Use Designation and Zoning District Consistency Matrix, page 21), by the El Dorado County General Plan or Zoning Ordinance;

b. Tree removal associated with an approved Fire Safe Plan as necessary to protect an existing structure or structures. The Fire Safe Plan shall take into consideration the El Dorado County Department of Forestry SRA Fire Safe Regulations and the CDF General Guidelines for Creating Defensible Space. Fire Safe Plans are prepared by a RPF or other qualified professional subject to review and approval by the County. See Exhibit One for more information.

c. Development on parcels that are one acre or larger and have less than 1 percent total oak canopy cover;

d. Development on parcels that are less than one acre and have less than 10 percent total oak canopy cover; or

e. Oak trees determined to be dead or diseased and dying by a certified arborist or registered forester are excluded from calculations of canopy cover ~~and~~ retention and replacement requirements.

f. Applicant has "self certified" compliance with Policy 7.1.2.2. For properties located outside of an Important Biological Corridor (IBC) and Mitigation Area 0 of the Ecological Preserve (EP), the removal of natural vegetation, including oak trees (less than 36 inches dbh), is demonstrated to be limited to areas proposed to be graded or cleared for single-family residential development to include the following (for ministerial permits and Director approved design review applications):

- Primary residence
- Accessory structures (including secondary residence, garages, workshops, barns, swimming pools, decks, etc.)
- Driveways and parking area
- Septic systems
- Wells and storage tanks
- Propane tanks

- Yard areas immediately surrounding the primary residence and any accessory structure
- Yard areas immediately surrounding the primary and any accessory structures
- Retaining walls necessary for any of the above

Replacement of oak trees will be required on-site to the greatest extent feasible and an oak replacement agreement shall be recorded requiring self-monitoring and maintenance.

4. Qualified Professional – For the purposes of Policy 7.4.4.4, "Qualified Professionals", refers to professionals approved by Development Services, suitably trained and experienced in wildlife biology, botany, arboriculture, or forestry such as qualified wildlife biologists, I.S.A. certified arborists, or Registered Professional Foresters (RPFs) can determine "habitat" value and canopy cover of oak woodlands determined from baseline aerial photography. The professional may be under contract to either the County or the property owner. The professional should be able to perform a species-focused site survey, use GPS to locate species and habitat on a map or aerial photograph, and should be able to address oak tree corridors (if applicable) for Policy 7.4.4.5. The qualified professional will need to prepare a Biological Resources Study and Important Habitat Mitigation Program that satisfies County requirements. In the event that a dispute arises involving the contents of the Biological Resources Study and/or Important Habitat Mitigation Program the County may refer the matter to an outside qualified consultant, retained by the County and paid for by the applicant/property owner, to develop recommendations for dispute resolution.

   If there is a need to provide a survey level of detail to fully ascertain which canopy level applies per Policy 7.4.4.4, then the survey shall be conducted by a California professional engineer or a California professional land surveyor.

   Generalized maps may be provided by a qualified professional using GPS.

5. Site Assessment Form and Tree Survey, Preservation, and Replacement Plan Required: An initial Site Assessment Form (Attachment 1) and Tree Survey, Preservation, and Replacement Plan must be prepared by a qualified professional and submitted to the Planning Services Division for review for all projects proposing removal of oak canopy cover. The purpose of the Site Assessment is to determine if the proposed removal of oak canopy cover would impact any of the following:

   - Landmark or heritage trees (See Policy 7.4.5.2 A);

- Oak corridor continuity, between all portions of existing stands of oak woodland habitat with connecting corridors at a tree density that is equal to the density of the stand (See Policy 7.4.4.5);
- Sensitive or important oak woodland habitats (See Policy 7.4.5.2 A);
- Oak woodland within or directly adjacent to an important biological resource corridor overlay or an ecological preserve overlay (See Policies 7.4.2.9 and 7.4.1.4);
- Listed or special status plant or animal species observed or expected to occur on the project site or in adjacent areas that may be directly or indirectly affected by the project (See Policy 7.4.1.5); or
- Removal of oak canopy that exceeds retention requirements of Policy 7.4.4.4.

For discretionary projects, the Site Assessment must also include a conclusion by the qualified professional as to whether the proposed oak tree canopy cover removal would have the potential to cause a significant effect on the environment.

If the Site Assessment concludes that the project would not impact any of the above, and the County concurs, and the retention/replacement requirements of Policy 7.4.4.4 are satisfied, the proposed oak tree canopy cover removal may be found consistent with Policy 7.4.4.4 without preparation of a Biological Resource Study and Important Habitat Mitigation Program. A Tree Survey, Preservation, and Replacement Plan, prepared according to County requirements, shall be required prior to issuance of a grading or building permit for the project. The Tree Survey, Preservation, and Replacement Plan will address long term preservation as well as protection of oak trees required to be retained or replaced during grading and construction.

If the Site Assessment, or the County, concludes that the proposed project would impact any of the above resources, and/or for discretionary projects could have the potential to cause a significant impact on the environment, then a full Biological Resources Study and Important Habitat Mitigation Program for the project must be provided to the County for review and approval. For ministerial projects, this must occur prior to issuance of a grading or building permit for the project. For discretionary projects, this must occur as part of the environmental review process. The recommendations of the plan must be fully implemented prior to final grading or building inspection for the project.

6. Project Sites Within ~~or Directly Adjacent to~~ Important Biological Corridor Overlay or Ecological Preserve Overlay Areas: Any projects (ministerial or discretionary) proposing any oak canopy cover removal within ~~or directly~~

~~adjacent to the~~ an Important Biological Corridor Overlay Designation or Ecological Preserve Overlay Designation shall require the submittal of Oak/Canopy Site Assessment Form, tree survey, and biological report. Should a dispute arise regarding recommendations of the biological report, review by the Planning Commission will be required to ensure consistency with Policies 7.4.2.9 and 7.4.1.4 unless the subject property is also located within an Agricultural District Overlay or Agricultural Lands designation in which case it would not be subject to additional requirements per Policy 7.4.2.9. The Biological Resources Study and Important Habitat Mitigation Program must address the requirements of Policies 7.4.2.9 and 7.4.1.4, including, but not limited to the potential for higher oak canopy cover retention and mitigation standards than for projects located outside of the Important Biological Corridor Overlay and Ecological Preserve Overlay areas.

7. Replacement Provisions – Where Policy 7.4.4.4 requires oak canopy cover replacement, the replacement shall be at a 1:1 ratio of canopy removed to canopy replaced as defined in these Guidelines or as specified by a qualified professional approved by the County. The 1:1 replacement ratio can be determined by a simple projection of an aerial photograph justified to the same scale as the underlying parcel is sufficient to estimate the land area, measured in square feet, subject to oak canopy coverage (land area in square feet shall be converted to acreage). Replacement may be by one of the following methods, at the discretion of the Development Services Director (Director):

   a. On-Site Replacement Tree Planting. The replacement requirement is calculated as set forth in the tree replacement formula. Refer to the 1:1 Woodland Replacement definition. Replacement trees are to be planted on-site to the satisfaction of the Development Services Director. The size of the designated replacement area shall equal at a minimum the total area of the oak canopy cover proposed to be removed. An agreement to the satisfaction of County Counsel and the Director shall be required to ensure the long term maintenance and preservation of any on or off-site replacement trees planted. Maintenance and monitoring shall be required for a minimum of 10 years after planting. Any trees that do not survive during this period of time shall be replaced by the property owner.

   b. On-Site Planting of Acorns. Under the direction of a qualified biologist, certified arborist and/or registered professional forester, acorns may be planted at a density designed to achieve oak canopy coverage which will equal the canopy coverage removed within no more than 15 years from the date of planting. The

minimum replacement ratio for acorns is calculated as set forth in the tree replacement formula. Refer to the 1:1 Woodland Replacement definition. Recommendations from the qualified professional shall include a minimum of: site planting design; acorn planting ratios to ensure success; acorn collection areas or nurseries; propagation measures; acorn protection techniques; maintenance, and monitoring and reporting. The size of the designated replacement area shall equal at a minimum, the total area of the oak canopy cover that is proposed to be removed. An agreement to the satisfaction of County Counsel and the Director shall be required to ensure the long term maintenance and preservation of any on or off-site replacement acorns planted. Maintenance and monitoring shall be required for a minimum of 15 years after planting. Any trees that do not survive during this period of time shall be replaced by the property owner.

c. On-Site Replacement of Canopy Area. Under the direction of a qualified biologist, certified arborist and/or registered professional forester, acorns, oak trees or a combination of both may be planted on-site The replacement requirement is calculated as set forth in the tree replacement formula. Refer to the 1:1 Woodland Replacement definition. Replacement plantings should be at a density designed to achieve oak woodland canopy coverage which will equal the canopy coverage removed within 15 years from date of planting or sooner.

Recommendations from the qualified professional shall include a minimum of: Site planting design; planting ratios to ensure success; any required acorn collection areas or nurseries; propagation measures; acorn and tree protection techniques; maintenance, monitoring and reporting requirements. The size of the designated replacement area shall equal at a minimum, the total area of the oak canopy cover that is proposed to be removed. An agreement to the satisfaction of County Counsel and the Director shall be required to ensure the long term maintenance and preservation of any replacement trees and/or acorns planted. Maintenance and monitoring shall be required for a minimum of 10 years after planting. Any trees that do not survive during this period of time shall be replaced by the property owner.

Replacement (and execution of related maintenance and monitoring agreements) shall be completed to the County's satisfaction prior to final grading or building inspection of the project.

d. Off-Site Replacement of Canopy Area. The applicant may be permitted to procure an off-site planting area for the replacement trees and/or planting of acorns, preferably in close proximity and/or in connection with any oak woodland contiguous to the project site or within or adjacent to an Important Biological Corridor or Ecological Preserve as designated in the General Plan, to implement the replacement planting. The size of the off-site replacement planting area shall equal at a minimum the total area of oak canopy cover proposed to be removed. Oaks planted shall have characteristics of the receiver site. Replacement shall occur at a 1:1 ratio as defined in these Guidelines or as otherwise specified by a qualified professional approved by the County. A Conservation Easement to the satisfaction of County Counsel and the Director shall be required to ensure the long term maintenance and preservation of any on or off-site replacement trees and/or acorns planted. The Conservation Easement shall provide for the preservation of the designated area in perpetuity and shall include such terms, conditions, and financial endowments for monitoring and management deemed necessary by the County to ensure the long term preservation of the oak woodland within the easement area. The Conservation Easement shall be in favor of the County or a County approved conservation organization. Maintenance and monitoring shall be required for a minimum of 10 years (15 years for acorns) after planting. Any trees that do not survive during this period of time shall be replaced by the property owner; or

e. Off-Site Conservation Easement to Protect Existing Oak Woodland in Lieu of Replacement. The applicant may obtain a Conservation Easement on property off-site with healthy oak woodland canopy area equivalent to 100 percent of the oak canopy area proposed to be removed. The conservation easement site should either be in close proximity and/or in connection with any oak woodland contiguous to the project site or within or adjacent to an Important Biological Corridor or Ecological Preserve as designated in the General Plan. The Conservation Easement shall provide for the preservation of the designated area in perpetuity and shall include such terms, conditions, and financial endowments for monitoring and management deemed necessary by the County to ensure the long term preservation of the oak woodland within the easement area. The Conservation Easement shall be in favor of the County or a County approved conservation organization.

8. Ministerial Projects on Existing Legal Lots for which Previous Approvals or Determinations of Developable Area have been made by County Decision-Makers: Previously approved discretionary projects that have conditions of approval and/or mitigation measures specifying detailed oak tree protection and mitigation plans shall not be required to demonstrate further consistency with Policy 7.4.4.4. However, canopy that was required to be retained in prior approvals must continue to be retained, unless modified by the decision-making authority for the original protection plan. This provision does not apply to any development project whose approval has expired and a time extension is applied for.

Reasonable Use Provisions for Development on Existing Legal Lots

A. Reasonable Use Related to Oak Canopy Cover Retention:

For existing legal lots, where strict compliance with the oak canopy cover retention requirements of Policy 7.4.4.4 could preclude reasonable use of the property or cause substantial inconsistencies with other General Plan policies protective of the environment, due to factors which are unique to the proposed property, such as topographic constraints, configuration of the remaining area useable for development, access requirements, lot size, and/or other physical or environmental limitations, or conflict with the requirements of an approved Fire Safe Plan, the Development Services Director may grant relief as described below, or the Planning Commission may grant relief to the retention requirements of Policy 7.4.4.4 for the project if the ~~following~~ findings are made pursuant to a noticed public hearing:

Development Services Director Relief:

The Director may grant a reduction in the retention requirements by up to 50 percent of what is specified in the Option A Retention Table after meeting all the required findings herein (subsection i. through iv.) and meeting one of the following conditions.

- For existing legal lots ½ acre in size or less with up to 100 percent disturbed area proposed; or

- For existing legal lots greater than ½ acre up to one acre in size with not more than 20,000 square feet of development/disturbed area proposed; or

- For existing legal lots greater than one acre in size but not greater than five acres in size with not more than 25,000 square feet of development/disturbed area proposed, excluding driveway access

removing oak canopy (intrusion of up to 25 percent of the dripline permitted).

- For existing legal lots greater than five acres with not more than 30,000 square feet of development/disturbed area proposed excluding driveway access removing oak canopy (intrusion of up to 25 percent of the dripline permitted).

If the lot is within an Important Biological Corridor or Ecological Preserve, relief may only be granted by the Planning Commission.

Planning Commission Relief:

Where the Director cannot grant relief, the Commission may grant relief when the following findings can be made.

i. The applicant demonstrates that the project is designed to maximize use of parcel area unconstrained by oak trees, unless precluded by other significant constraints such as steep slopes, streams, creeks, wetlands, or other sensitive environmental resources.

ii. The proposed project is limited to development and site disturbance that is typical and prevalent for the general area surrounding the project site.

iii. Soil disturbance and tree removal is minimized through the incorporation of some or all of the following measures into the project design:

   a. Stepped foundations are used on sloping areas rather than graded pads;
   b. Depth of excavation and/or fill outside of the building footprint is limited to no more than five feet measured vertically from the natural ground surface, except for grading necessary to install retaining walls designed to reduce the total area of tree canopy that will be removed and/or damaged;
   c. Structures and the configuration of the area of disturbance are designed to parallel the natural topographic contours to the greatest extent feasible;
   d. Patio decks are included in the design of dwellings to minimize the need for graded yard areas;

e. Design techniques such as clustering of buildings are proposed to take advantage of the portions of the property which are least constrained by oaks;

f. The project is designed to maximize consistency with all applicable policies of the El Dorado County General Plan. *It is recognized that more than one policy may have to be considered in the determination of reasonable use of a particular parcel.*

iv. If the project site is within ~~or directly adjacent to~~ an Important Biological Corridor Overlay or Ecological Preserve a Biological Resources Study and Important Habitat Mitigation Program have been prepared by a qualified professional and approved by the County and will be fully implemented by the applicant. The Study shall be prepared in accordance with the *Biological Resources Study and Important Habitat Mitigation Program Interim Guidelines*, adopted November 9, 2006.

Replacement of any oak tree canopy area allowed to be removed by the Planning Commission in excess of the retention standards in the General Plan shall be required. At a minimum, the replacement shall be completed in accordance with the tree replacement formula. Refer to the 1:1 Woodland Replacement definition. A 2:1 ratio or as otherwise specified by a qualified professional approved by the County, pursuant to the options and methods specified in these Guidelines, may be applied at the discretion of the Planning Commission. Further, for discretionary projects, any effects on biological resources will be analyzed in the environmental document and appropriate additional mitigation proposed as required by the California Environmental Quality Act, California Oak Woodlands Conservation Law and other applicable statutes.

B. Reasonable Use Related to Oak Corridor Retention:

In order to ensure that reasonable use of the property is provided, an applicant may request the Planning Commission to provide relief from the strict application of this corridor retention requirement (Policy 7.4.4.5) in the same manner as described above. In addition, for discretionary projects, any effects on biological resources will be analyzed in the environmental document and appropriate mitigation proposed as required by the California Environmental Quality Act, California Oak Woodlands Conservation Law and other applicable statutes.

GENERAL REQUIREMENTS APPLICABLE TO ALL PROJECTS

Compliance with the General Plan:

In addition to compliance with these guidelines for these Policies, the proposed development shall be in conformance with all other applicable policies of the County General Plan and any applicable Specific Plans and/or Development Agreements.

Compliance with the Zoning Ordinance and Grading Ordinance and Building Codes:

The proposed development shall be in compliance with all applicable requirements of the County Zoning Ordinance, Grading Ordinance, and Building Codes.

County, State, or Federal Agency Requirements:

County, State and Federal agencies have different jurisdictional authority which may result in different conditions for approval. In the event of multiple agency permit approval, the most restrictive set of conditions shall apply.

Important Biological Corridor Overlay Designation and Ecological Preserve Overlay Designation:

Proposals for removal of any oak canopy cover on property within or directly adjacent to an Important Biological Corridor Overlay (IBC) designation or Ecological Preserve Overlay (EP) designation pursuant to the General Plan shall require review by the Planning Commission to ensure consistency with the requirements of Policies 7.4.2.9 and 7.4.1.4. A Biological Resource Study and Important Habitat Mitigation Program shall be required.

SITE ASSESSMENT FORM REQUIREMENTS AND THE TREE SURVEY, PRESERVATION, AND REPLACEMENT PLAN REQUIREMENTS

The Site Assessment Form requirements are detailed in Attachment 1.

BIOLOGICAL RESOURCE STUDY AND IMPORTANT HABITAT MITIGATION PROGRAM REQUIREMENTS

Biological Resource Study and Important Habitat Mitigation Program requirements are detailed in Attachment 2.

ADMINISTRATION

The above guidelines are interim standards utilized by the Development Services Department of El Dorado County to provide for consistent review of projects for conformance with Policy 7.4.4.4 pending adoption of permanent regulations.

Penalties for Violation – ~~Pursuant to Policy 7.4.5.2 D,~~ If oak trees are removed prior to review by the County and without appropriate retention and replacement provisions implemented in anticipation of development of a site, the County may withhold and defer approval of any application for development of that property ~~for a period of up to five years. Additionally, fines may be applied as high as three times the current market value of replacement trees plus the cost of replacement, and/or replacement tree(s) may be required at a 3:1 ratio at sites approved by the County. The cost of maintenance, monitoring, and reporting of any replacement trees shall be paid for by the applicant.~~ until such time as the amount of oak tree canopy removed is determined and appropriate replacement and mitigation provisions are met in conformance with Policy 7.4.4.4 to the satisfaction of the Director.

INTERNET RESOURCES

California Department of Conservation, Office of Mine Reclamation, Fall 2005 SMARA Newsletter regarding the State Oak Woodlands Conservation Law
http://www.consrv.ca.gov/omr/smara/newsletter/Fall%202005.pdf

California Department of Forestry Fire Safe Plan
http://www.fire.ca.gov/php/education_100foot.php

California Department of Forestry Fire Safe Regulations
http://www.co.el-dorado.ca.us/building/FSArticle1.htm

California Licensed Foresters Association
http://www.clfa.org/registered_professional.htm

California Board for Professional Engineers and Land Surveyors:
http://www.dca.ca.gov/pels/

CDF General Guidelines for Creating Defensible Spaces
http://www.bof.fire.ca.gov/pdfs/4291finalguidelines2_23_06.pdf

El Dorado County Department of Forestry SRA Fire Safe Regulations
http://www.co.el-dorado.ca.us/building/PDF/Booklets/Fire_safe_regs.pdf

El Dorado County General Plan
http://www.co.el-dorado.ca.us/Planning/GeneralPlanAdopted.html

El Dorado County General Plan EIR
http://www.co.el-dorado.ca.us/Planning/GeneralPlanDraftEIR.htm

McCreary DD. 2001. *Regenerating rangeland oaks in California*. Berkeley (CA): University of California, Agriculture and Natural Resources. Communication Services Publication #21601. 62 p.

Standiford, Richard and Douglas McCreary and William Frost. 2002. *Modeling the Effectiveness of Tree Planting to Mitigate Habitat Loss in Blue Oak Woodlands.* USDA Forest Service Gen. Tech. Rep. PSW-GTR-184. Available at: http://danr.ucop.edu/ihrmp/proceed/standiford.pdf

Western Chapter – International Society of Arboriculture Publications (Guide for Plant Appraisal, Item # P1209, to determine market values of trees)
http://wcisa.wcainc.com/docs/Publication.pdf

ATTACHMENTS

Exhibit One	CDF Fire Safe Plan Brochure
Attachment 1	Site Assessment Form
Attachment 2	Biological Resources Study and Important Habitat Mitigation Program Requirements

ATTACHMENT B

Natural Resources Conservation Service Descriptions for Soils Observed During Field Surveys

Natural Resources Conservation Service Descriptions for Soils Observed During Field Surveys

SOBRANTE SERIES

The Sobrante series consists of moderately deep, well drained soils that formed in material weathered from basic igneous and metamorphic rocks. These soils are on foothills and have slopes of 2 to 75 percent. The mean annual precipitation is about 32 inches and the mean annual temperature is about 60 degrees F.

TAXONOMIC CLASS: Fine-loamy, mixed, active, thermic Mollic Haploxeralfs

TYPICAL PEDON: Sobrante silt loam, rangeland. (Colors are for dry soil unless otherwise noted.)

A--0 to 5 inches; reddish brown (5YR 5/4) silt loam, dark reddish brown (5YR 3/4) moist; massive; slightly hard and hard, friable, slightly sticky and slightly plastic; many very fine roots; common very fine and medium tubular and interstitial pores; moderately acid (pH 6.0); clear smooth boundary. (4 to 9 inches thick)

Bt1--5 to 11 inches; yellowish red (5YR 4/6) silt loam, yellowish red (5YR 3/6) moist; weak medium subangular blocky structure; hard, friable, sticky and slightly plastic; common very fine roots; many very fine and fine tubular pores; few thin clay films in pores; slightly acid (pH 6.3); clear smooth boundary. (5 to 10 inches thick)

Bt2--11 to 24 inches; yellowish red (5YR 5/6) light clay loam, dark red (2.5YR 3/6) moist; moderate medium subangular blocky structure; hard, friable, sticky and slightly plastic; common very fine roots; common very fine, many fine and medium tubular pores; many thin clay films in pores and on peds; slightly acid (pH 6.3); clear wavy boundary. (11 to 18 inches thick)
Cr--24 to 30 inches; soft well-weathered basic schist, slightly acid (pH 6.5). (0 to 6 inches thick)
R--30 to 34 inches; hard basic schist with pockets of slightly weathered schist.

TYPE LOCATION: El Dorado County, California; 2.5 miles south of Shingle Springs, 200 feet west of French Creek Road, 200 feet south of the N 1/4 corner of sec. 19, T. 9 N., R. 10 E.

RANGE IN CHARACTERISTICS: Depth to a lithic contact ranges from 20 to 40 inches and is variable over short distances. The soils between depths of about 5 to 15 inches are usually moist but become dry in all parts in May or early June and remain dry until October to mid-November. Coarse fragments throughout the profile range from about 3 to 30 percent with the largest amount usually in the uppermost and lowermost horizons. The mean annual soil temperature is 59 degrees to 66 degrees F. The soil is slightly or moderately acid throughout. The A horizon has dry colors of 7.5YR 5/2, 5/4, 5/6, 5/8, 4/4; 5YR 5/3, 5/4 and moist colors of 7.5YR 2/4, 3/2, 3/4; 5YR 3/3 or 3/4. Moist colors of 2/4, 3/2, and 3/3 are usually to a depth of 5 inches or less. It is silt loam, loam or gravelly loam with 10 to 25 percent clay. Organic matter ranges from 3 to 7 percent in the upper few inches and from 1.5 to 3 percent at 5 inches. The Bt horizon has dry colors of 2.5YR 5/6, 5/8; 5YR 5/8, 5/6, 4/6, 4/4, 3/4, 3/6; or 7.5YR 5/6 and moist colors of 2.5YR 3/6, 4/6, 4/8; 5YR 3/4, 4/4, 3/6; or 7.5YR 3/4. It is loam, silt loam, clay loam, silty clay loam, gravelly loam or gravelly clay loam with 25 to 35 percent clay and with a 4 to 15 percent (absolute) increase over the A horizon. Base saturation ranges from 70 to 90 percent. Some pedons lack a Cr horizon above the lithic contact.

Natural Resources Conservation Service Descriptions for Soils Observed During Field Surveys

COMPETING SERIES: These are the Acadamy, Burchell, Cajalco, Coarsegold, Honn, Jacinto, Modesto, Olashes, Perkins, and Pleasanton, Rescue, Sobay, Trimmer and Whitney series. Academy, Burchell, Coarsegold, Honn, Jacinto, Modesto, Perkins, Pleasanton and Rescue and Sobay soils lack a lithic contact above depth of 40 inches. Cajalco, Trimmer and Whitney soils have a paralithic rather than a lithic contact.

GEOGRAPHIC SETTING: The Sobrante soils are on foothills and have slopes of 2 to 75 percent. Elevation ranges from 125 to 3,500 feet. They formed in material weathered from basic igneous and metamorphic rocks, mainly amphibolite schist, diabase, andesite, or basalt. Rock outcrops are common. The climate is moist subhumid with warm dry summers and cool moist winters. Mean annual precipitation is 15 to 50 inches. Mean annual temperature is about 56 to 60 degrees F; average January temperature about 45 degrees F; and average July temperature about 76 degrees F. Frost-free season is about 200 to 270 days, but may be as few as 140 in Lake Co.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the Argonaut, Auburn and Boomer soils and the competing Rescue soils. Argonaut soils have more than 35 percent clay in the argillic horizon. Auburn soils have a lithic contact within a depth of 20 inches in part of each pedon. Boomer soils are in cooler sites with a mean soil temperature of less than 59 degrees F.
DRAINAGE AND PERMEABILITY: Well drained; low to very high runoff; moderate permeability.

USE AND VEGETATION: Used mainly for range, some areas are used for irrigated hay and pasture and dry land crops. The native vegetation is oak-grass and forbs with some scattered perennial grasses.

DISTRIBUTION AND EXTENT: Coast Range mountains and foothills of the Sierra Nevada Range in California. The series is of moderate extent.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Davis, California

SERIES ESTABLISHED: Contra Costa County, California, 1935.

REMARKS: The activity class was added to the classification in January of 2003. Competing series were not checked at that time. - ET

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AUBURN SERIES

The Auburn series consists of shallow to moderately deep, well drained soils formed in material weathered from amphibolite schist. Auburn soils are on foothills and have slopes of 2 to 75 percent. The mean annual precipitation is about 24 inches and the mean annual temperature is about 60 degrees F.

TAXONOMIC CLASS: Loamy, mixed, superactive, thermic Lithic Haploxerepts

Natural Resources Conservation Service Descriptions for Soils Observed During Field Surveys

TYPICAL PEDON: Auburn silt loam - on an east facing slope of 10 percent under annual grass, oak and digger pine at 620 feet elevation. (Colors are for dry soil unless otherwise stated. When described on March 27, 1959, the soil was dry throughout.)

A1--0 to 1.5 inches; strong brown (7.5YR 5/6) silt loam, reddish brown (5YR 4/4) moist; massive; slightly hard, friable, slightly sticky and nonplastic; many very fine roots; many very fine and fine tubular pores; slightly acid (pH 6.4); clear smooth boundary. (1 to 8 inches thick)
A2--1.5 to 9 inches; yellowish red (5YR 5/6) silt loam, reddish brown (5YR 4/4) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; many very fine and medium roots; many very fine and medium tubular pores; slightly acid (pH 6.4); gradual smooth boundary. (1 to 8 inches thick)

Bw--9 to 14 inches; yellowish red (5YR 5/8) silt loam, yellowish red (5YR 4/6) moist; massive; slightly hard, friable, slightly sticky and slightly plastic; many very fine roots; many very fine tubular pores; few thin clay films line pores; slightly acid (pH 6.5); abrupt wavy boundary. (5 to 12 inches thick)
R--14 to 24 inches; very pale brown (10YR 7/4) partly weathered amphibolite schist with reddish brown (2.5YR 4/4) colloidal stains in fracture planes; few roots in cracks; slightly acid (pH 6.5).

TYPE LOCATION: Amador County, California. About 3.5 miles northeast of Ione, 0.25 miles east and 100 feet north of the southeast corner of sec. 6 T. 6 N, R. 10 E. Irish Hill Quadrangle.

RANGE IN CHARACTERISTICS: The depth to bedrock ranges from 10 to 28 inches. These range from less than 20 inches to more than 20 inches within a linear distance of less than 140 inches. Dominantly the soils are 10 to 20 inches deep to rock over 50 to 90 percent of the area. The rest of the area, 10 to 50 percent, is 20 to 28 inches to rock. The contact with the bedrock is abrupt, although some slightly weathered fracture planes are present in some pedons. Rock fragments range from 0 to 25 percent and consist of pebbles, cobbles and stones. The soil between the depths of 8 and 20 inches or to a lithic contact is dry in all parts from June to mid-October and is moist in all parts from mid-November to May. The mean annual soil temperature is between 59 and 67 degrees F.

The A horizon is 7.5YR 4/4, 5/8, 5/6, 5/4, 6/6; 5YR 4/6, 5/4 or 5/6. Moist colors are 7.5YR 3/2, 3/3, 3/4, 4/4, 4/6, 5/4; 5YR 3/3, 3/4, 3/6 or 4/4. Mottles of lower chroma than the matrix may occur in the upper 2 or 3 inches. It is massive or has weak subangular blocky structure. It is loam, silt loam or clay loam or its gravelly, stony, or very stony equivalents. It is neutral to medium acid.

The Bw horizon is 7.5YR 4/4, 5/4, 5/6, 5/8, 6/6; 5YR 4/4, 4/6, 5/4, 5/6, 5/8, 6/6 or 6/8. Moist colors are 7.5YR 4/4, 4/6, 5/4, 5/6, 5/8, 6/6, 6/8; 5YR 3/4, 4/4, 4/6, 5/6, 5/8, 6/6 or 6/8. It is loam, silt loam, clay loam, or its' gravelly equivalent. It is slightly to strongly acid. It has hues that are one unit redder or chromas that are brighter or there is weak structure or there is a slight clay increase.

COMPETING SERIES: These are the Daulton, Escondido, Exchequer, Hornitos, Maymen, eMillsholm, Sobrante, Temescal, and Toomes soils in other families. All these soils except Escondido and Sobrante are less than 20 inches deep to a lithic contact in all parts. In addition,

Natural Resources Conservation Service Descriptions for Soils Observed During Field Surveys

Daulton, Millsholm, and Temescal soils lack reddish colors in hues of 7.5YR and 5YR. Exchequer soils are less than 10 inches deep. Hornitos and Maymen have a base saturation (ammonium acetate) of less than 60 percent throughout the 10 to 20 inch zone. Escondido and Sobrante soils are more than 20 inches deep to a lithic contact in all points. In addition, Sobrante soils have an argillic horizon.

GEOGRAPHIC SETTING: The Auburn soils are on undulating to very steep foothills with slopes of 2 to 75 percent. Rock outcrops are common. The soils formed in material weathered from metabasic or metasedimentary rock such as amphibolite schist, greenstone schist, or diabase. Elevations are 125 to 3,000 feet. The climate is subhumid with hot dry summers and cool moist winters. Mean annual precipitation is 20 to 40 inches. Mean January temperature is about 45 degrees F, and mean July temperature is 76 degrees F; mean annual temperature varies from 56 to 63 degrees F. Frost-free season is about 175 to 275 days.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the competing Exchequer and Sobrante soils and the eArgonaut and Whiterock soils. Argonaut soils have argillic horizons and Whiterock soils lack reddish colors in hues of 7.5YR and 5YR.

DRAINAGE AND PERMEABILITY: Well drained; low to very high runoff; moderate permeability.

USE AND VEGETATION: Used for annual rangeland with small areas used for irrigated pasture. The native vegetation is typically annual grasses and forbs such as soft chess, wild oats, ripgut brome, and filaree with stands of oak and scattered digger pine and brush.

DISTRIBUTION AND EXTENT: Lower foothills of the Sierra Nevada Mountains of California. The soil is extensive.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Davis, California
SERIES ESTABLISHED: Marysville and Sacramento Areas, 1913. The classification was updated in February 2001 using the Eighth Edition to Soil Taxonomy. This series was formerly classified as loamy, oxidic, thermic Ruptic-Lithic Xerochrepts. Competing series were not checked at that time.

REMARKS: Diagnostic horizons and features recognized in this pedon are:
Ochric epipedon - 0 to 9 inches (A1, A2)
Cambic horizon - 9 to 14 inches (Bw)
Lithic contact - depth to contact in 10 to 28 inches and is more than or less than 20 inches within short distances.
Last major revision by the state on 5/88.
Edit log: 10/2006 minor edits, changed terminology for runoff

ADDITIONAL DATA: Two pedons in Amador County: NSSL Pedon S59CA-005-007 (series type location) and S59CA-005-008. Based on lab data this soil should NOT be oxidic and is mixed.

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Natural Resources Conservation Service Descriptions for Soils Observed During Field Surveys

ARGONAUT SERIES

The Argonaut series consists of moderately deep, well drained soils that formed in materials weathered from meta-andesite. Argonaut soils are on foothills with slopes of 2 to 30 percent. The mean annual precipitation is 27 inches and the mean annual temperature is about 60 degrees F.

TAXONOMIC CLASS: Fine, mixed, superactive, thermic Mollic Haploxeralfs

TYPICAL PEDON: Argonaut gravelly loam-on a southwest facing slope of 6 percent under annual grass - oak cover at 1,360 feet elevation. (Colors are for dry soil unless otherwise stated. When described on March 24, 1959, the soil was slightly moist throughout.)

A1--0 to 2 inches; brown (7.5YR 5/4) gravelly loam, dark reddish brown (5YR 3/4) moist; weak thin platy structure; hard, friable, nonsticky and nonplastic; many very fine, few fine and medium roots; many very fine pores; 21 percent pebbles; slightly acid (pH 6.1); abrupt smooth boundary. (2 to 3 inches thick)

A2--2 to 6 inches; yellowish red (5YR 5/6) gravelly loam, yellowish red (5YR 3/6) moist, massive; hard, friable, nonsticky and slightly plastic; common very fine, few fine and medium roots; common very fine and fine, few medium pores; few thin clay films line pores; 20 percent pebbles, cobbles and stones; slightly acid (pH 6.3); clear smooth boundary. (3 to 8 inches thick)

Bt1--6 to 10 inches; yellowish red (5YR 4/6) gravelly heavy loam, yellowish red (5YR 3/6) moist, massive; hard, friable, slightly sticky and plastic; common very fine, few fine and medium roots; common very fine and fine medium pores; common thin clay films line most pores; 15 percent pebbles, cobbles and stones; slightly acid (pH 6.2); clear smooth boundary. (3 to 6 inches thick)

Bt2--10 to 14 inches; yellowish red (5YR 5/6) clay loam, yellowish red (5YR 3/6) moist; massive; hard, firm, slightly sticky and plastic; few fine and medium roots; common very fine and fine, few medium pores; continuous thin clay films line pores; about 8 percent pebbles and cobbles; slightly acid (pH 6.1); abrupt boundary. (3 to 5 inches thick)

Bt3--14 to 21 inches; brown (10YR 5/3) gravelly clay, yellowish brown (10YR5/4) and brown (7.5YR 5/4) moist; brown (7.5YR 5/4) coatings; massive; very hard, firm, sticky and very plastic; few very fine and coarse roots; few very fine pores; continuous thick clay films line pores; few slickenslides; about 22 percent pebbles, cobbles and stones; slightly acid (ph 6.1); abrupt wavy boundary. (4 to 17 inches)

Cr--21 to 27 inches; light reddish brown (2.5YR 6/4) deeply weathered meta-andesite, light olive brown moist, yellowish red (5YR 4/6) moderately thick, continuous clay films and black stains along a few fracture planes; the weathered rock crumbles when disturbed but is firmer with increasing depth; neutral (pH 7.1).

TYPE LOCATION: Amador County, California; about 0.5 miles west of Martell, 1,800 feet south and 1,500 feet east of the NE corner of sec 19, T. 6 N, R. 11 E. Jackson Quadrangle.

Natural Resources Conservation Service Descriptions for Soils Observed During Field Surveys

RANGE IN CHARACTERISTICS: Thickness of solum and depth to a paralithic contact is 20 to 40 inches. The mean annual soil temperature ranges from 59 to 67 degrees F. The soil between the depths of 8 and 24 inches or to a paralithic contact is dry in all parts from June 1 to October 15 (120 to 150 days) and is moist in all parts from November 15 to May 15 (165 to 195 days). Some rock fragments are present throughout the soil with about 2 to 25 percent in the lower Bt horizons and 5 to 35 percent in the A and upper Bt horizons. It has 2 to 6 percent organic matter in the upper 4 inches and more than 1 percent to a depth of 10 inches. The weighted average of the upper 20 inches of the Bt horizon is 35 to 50 percent.

The A horizon is 7.5YR 6/6, 5/6, 5/4, 4/6, 4/4; 5YR 5/3, 5/4, 5/6, 4/6, 4/4, or 4/6. Moist colors are 7.5YR 3/4, 4/4, 4/6; 5YR 3/4, 4/3, 4/4, or 4/6. The upper 4 inches have moist color values of 3. It is loam, silt loam or clay loam and may be gravelly or extremely stony. It is massive and hard or the upper few inches has weak platy, weak granular or weak subangular blocky structure. Reaction is moderately acid to neutral .

There is a transitional horizon between the A and B horizon or a gradual boundary occurs for the A horizon. The upper Bt horizon is 7.5YR 4/4, 4/6, 5/4, 5/6, 5/8; 5YR 5/3, 5/4, 5/6, 4/4, or 4/6. Moist colors are 7.5YR 4/4, 4/6; 5YR 4/4, 4/6, or 3/4. It is heavy loam, heavy silt loam, clay loam or its gravelly or cobbly equivalents. Reaction is moderately acid to neutral. An abrupt boundary is always present.

The lower Bt horizon is 10YR 5/3, 5/4, 5/6, 6/4; 7YR 5/4, 5/6, 4/6, 4/4; 5YR 4/6, 5/6, or 4/4. Moist colors are 10YR 5/3, 5/4, 5/6; 7.5YR 5/6, 5/4, 4/4, 4/6; 5YR 3/4, 4/4, 4/6, 4/8, or 5/6. It is heavy clay loam, gravelly clay or clay. Reaction is moderately acid to mildly alkaline. The clay increase between the upper Bt and lower Bt exceeds 15 percent. In some profiles a stone line separates these two horizons.

The Cr is 10YR 7/6, 2.5Y 7/4, or 6/4. Moist colors are 2.5Y 6/4 or 5/4.

COMPETING SERIES: These are the Conosta, Contra Costa, Francher, Kilaga, Phipps (T), and Trabuco. Conosta soils lack an argillic horizon with more than 15 percent clay increase within one inch. Contra Costa soils have a lithic contact between 20 and 40 inches. Francher soils have a CA/Mg ratio of less than 2:1. Kilaga and Phipps (T) soils are greater than 60 inches deep. Trabuco soils have a paralithic contact below 40 inches.

GEOGRAPHIC SETTING: The Argonaut soils are on undulating to hilly broad ridges and slightly concave slopes of 2 to 30 percent. The soils formed in material weathered from metamorphosed and intrusive basic rocks. Rock outcrops are common. Elevations are 200 to 2,500 feet. The climate is subhumid with hot dry summers and cool moist winters. Mean annual precipitation is 20 to 50 inches. Mean January temperature is about 44 degrees F.; mean July temperature is about 76 degrees F.; mean annual temperature is about 56 to 63 degrees F. Frost-free season ranges from 220 to 270 days.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the Auburn, Rescue and Sobrante soils. Auburn soils lack argillic horizons. Rescue and Sobrante have less than 35 percent clay in all parts of the argillic horizon.

DRAINAGE AND PERMEABILITY: Well drained; slow to rapid runoff; very slow permeability.

Natural Resources Conservation Service Descriptions for Soils Observed During Field Surveys

USE AND VEGETATION: Mainly used for annual rangeland. Vegetation is soft chess, wild oats, ripgut brome, filaree with scattered foothill pine and scattered to dense thickets of blue oak, interior live oak and buckbrush.

DISTRIBUTION AND EXTENT: Foothills of the central Sierra Nevada in California. The series is of moderate extent.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Davis, California

SERIES ESTABLISHED: Amador County, California, Amador Area 1963.

REMARKS: Diagnostic horizons and features recognized in the pedon are:
Ochric epipedon - 0 to 6 inches (A1, A2)
Argillic horizon - 6 to 21 inches (Bt1, Bt2, Bt3)
Paralithic contact at 21 inches.
This pedon was sampled by NSSL at Riverside in 1959. Pedon number S59CA-3-6-(1-6)
OSED scanned by SSQA. Last revised by state on 8/85.
Edit log: 4/2003 Proposed edits for use in Butte County. Expand reaction A horizon: moderately acid to neutral. Expand reaction lower Bt horizon: from slightly acid to moderately acid. Add the following colors: A horizon-dry colors: 7.5YR 4/6 and 5YR 4/6. Upper Bt horizon-dry colors: 7.5YR 4/4, 4/6. Lower Bt horizon dry colors: 7.5YR 4/4, 4/6. Moist colors: 5YR 3/4. Cr horizon-dry: 10YR 7/6. Expand elevation from 300 to 200 feet. Expand MAT from 62 to 63 degrees F. Changed digger pine to foothill pine.

National Cooperative Soil Survey
U.S.A.

ATTACHMENT C

Proposed Guidelines for Acorn Collection, Storage and Planting

Guidelines for Acorn Collection,
Storage, and Planting

- **Acorn Collection**
- All acorns should be from a source local to the mitigation sites.
- Collect acorns over an interval of a few weeks from late summer to mid fall, when the acorns have ripened, but before they have all fallen from the trees. Acorns can be harvested when they can be easily dislodged from their caps by gentle twisting and when they start to drop from the trees.
- If feasible, collect acorns directly from trees, rather than the ground, since acorns that are on the ground readily loose their moisture and are subject to predation.
- Place acorns in loosely sealed plastic bags that allow some gas exchange. Discard obviously damaged or deformed acorns.
- Store acorns in refridgerator just above freezing (34 degrees to 38 degrees F) for no more than one to two months before planting.

Planting Site Preparation

- All planting should be done in late fall or early winter, as soon as the soil is moist down to a depth of four+ inches.
- Soak acorns from eight to 48 hours prior to planting. Discard all acorns that float. Keep acorns cool during transport. Soaked acorns not planted must be discarded.
- Each planting site should be cleared of most vegetation around a four foot diameter area. Clear down to stubble and rake clean.
- Clear the center 12 inches of the planting site down to soil, removing all vegetation.
- Dig or auger a 12 inchs deep planting hole in this center area, removing all but very small rocks and debris. If shallow hardpan is found within the planting site, auger past the depth of the hardpan.
- Backfill with the loosened soil or, if necessary, sterile topsoil to fill the planting hole back up to original grade. Compact well using foot and hand tools. Do not compact by machine.

Planting

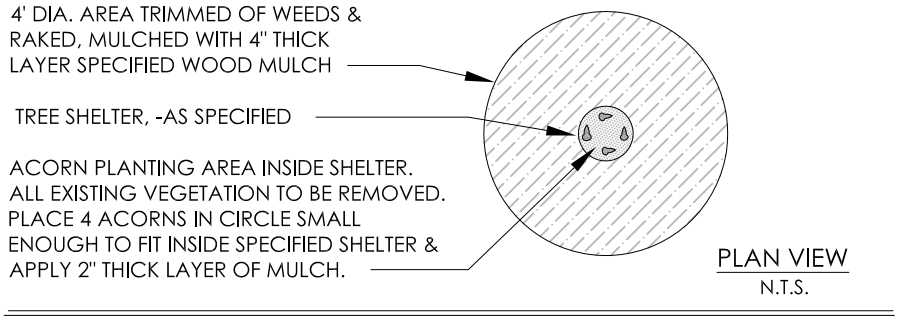
- Over the backfilled planting hole, place four evenly spaced acorns of the species specified on their sides and within a six inch diameter circle. The acorns should be spaced in an area smaller than the diameter of the specified tree shelter.
- Cover the acorns with one to two inches of the specified topsoil. Carefully but thoroughly compact backfill with hand or foot.
- Place the specified tree shelter over the covered acorns, inserting the bottom of the shelter four inches into the soil if vole predation is a consideration.
- Place shredded or chipped wood mulch four inches deep or sterile rice straw (compressed with foot) six inches deep outside of the shelter to cover the entire four foot diameter planting area.

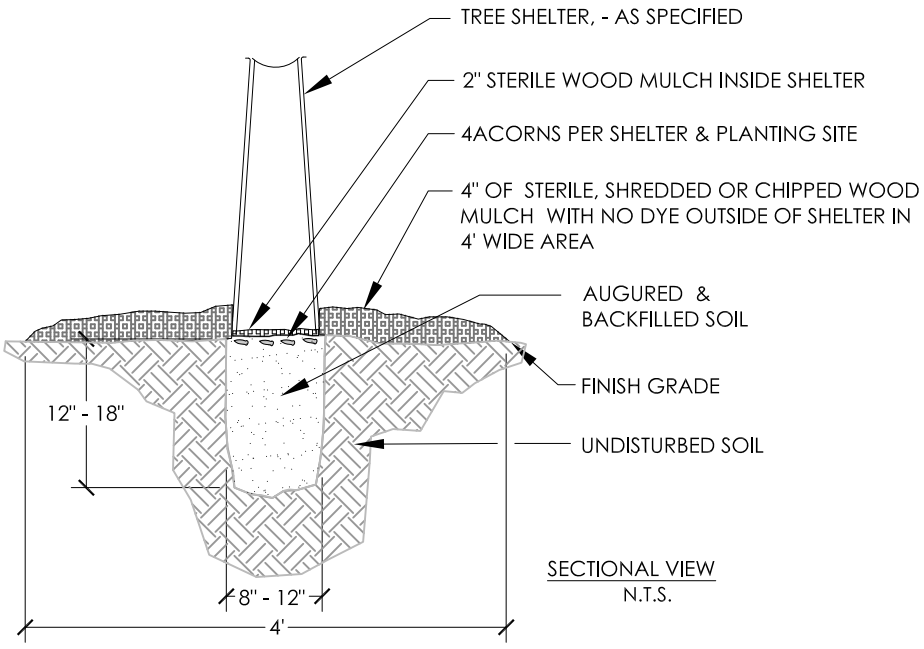
Maintenance

- Maintain a four-foot wide weed-free area around each acorn planting site for a minimum of three years by mowing or weedeating in mid spring. Initiate weed control in spring before weed seeds ripen. Additional late-season mowing or weedeating may be necessary. The elimination of surrounding weeds is vital to maintaining soil moisture, eliminating competition for light and space, and discouraging herbivory.
- The need for mowing may be reduced by additional applications of mulch or straw or by the application of approved pre- or post-emergent herbicides.
- Check for predation around tree shelters. Adjust position of the shelters and methods of weed control, if necessary.

ATTACHMENT D

Proposed Conceptual Layout for Acorn Planting with Protection





1. ACORN PLANTING SHOULD BE COMPLETED IN EARLY WINTER, JUST AFTER RAINS HAVE SUFFICIENTLY MOISTENED SOIL. SEE *GUIDELINES FOR ACORN COLLECTION AND PLANTING* (ECORP 2008).

2. REMOVE WEEDS FROM 4' DIA. CIRCLE AROUND ACORN PLANTING AREA. RAKE CLEAN.

3. REMOVE ALL VEGETATION FROM 12" DIA. SHELTER AREA.

4. AUGUR PLANTING HOLE AT LEAST 12" DEEP X 8" WIDE. REMOVE ROCKS & ALL VEGETATION. BACKFILL WITH NATIVE SOIL OR , IF NECESSARY, STERILE TOPSOIL.

5. PLACE 5 ACORNS ON THEIR SIDES WITHIN A CIRCLE SMALLER THAN THE DIAMETER OF THE SHELTER.

6. COVER ACORNS WITH $\frac{1}{2}$" TO 1" OF THE LOOSENED SOIL OR STERILE TOPSOIL.

7. SECURE TREE SHELTER AROUND ACORNS.

8. PLACE 1" THICK LAYER STERILE WOOD MULCH OVER ACORNS (WITHIN SHELTER) AND 4" THICK LAYER OUTSIDE SHELTER TO 4' DIAMETER.

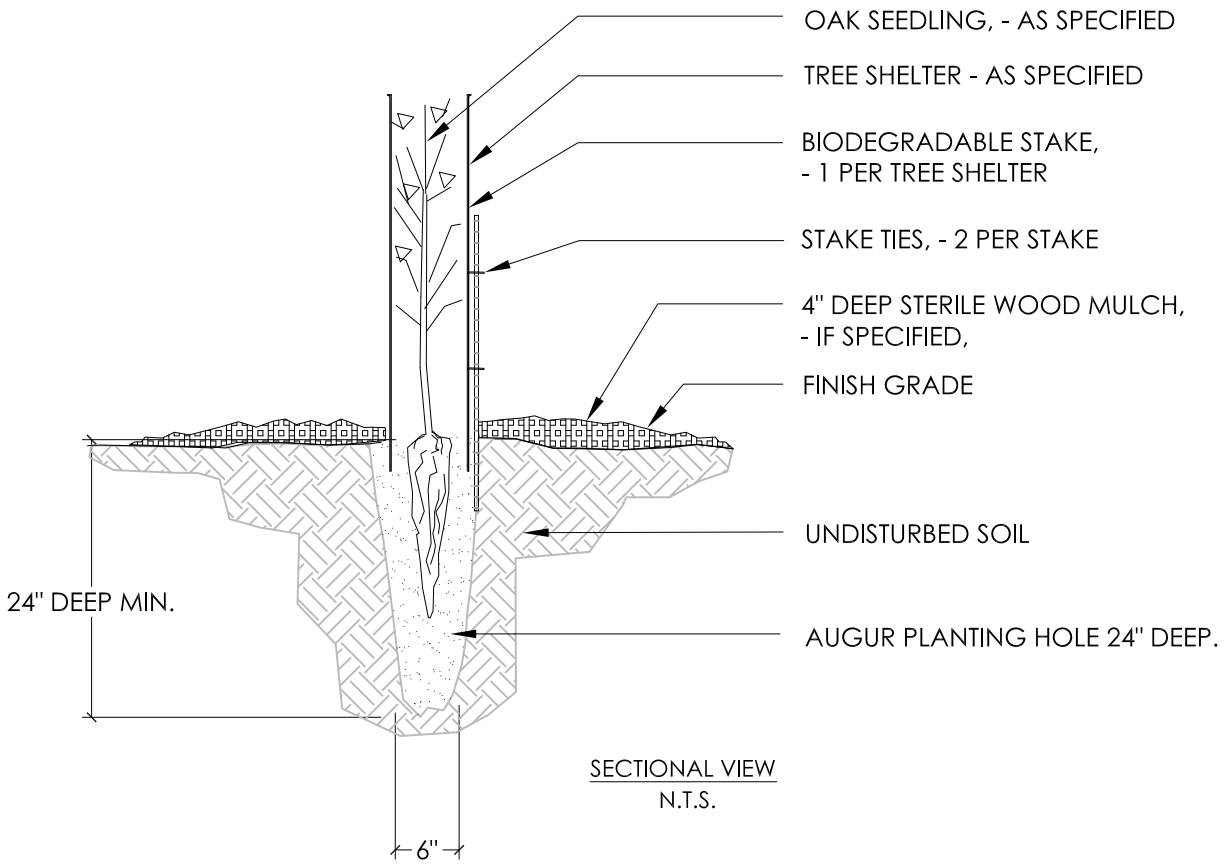
2 ACORN PLANTING AND PROTECTION

Detail for Acorn Planting

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ATTACHMENT E

Proposed Guidelines for Planting Oak Seedling with Shelter



1. PLANTING HOLES SHALL BE AUGURED 6" WIDE X 24" DEEP.
2. ALL TREES TO RECEIVE SPECIFIED TREE SHELTER.
3. IF VOLE HERBIVORY NOTICED IN IMMEDIATE OR SURROUNDING AREAS PLACE BOTTOM OF SHELTERS 4" BELOW GRADE.

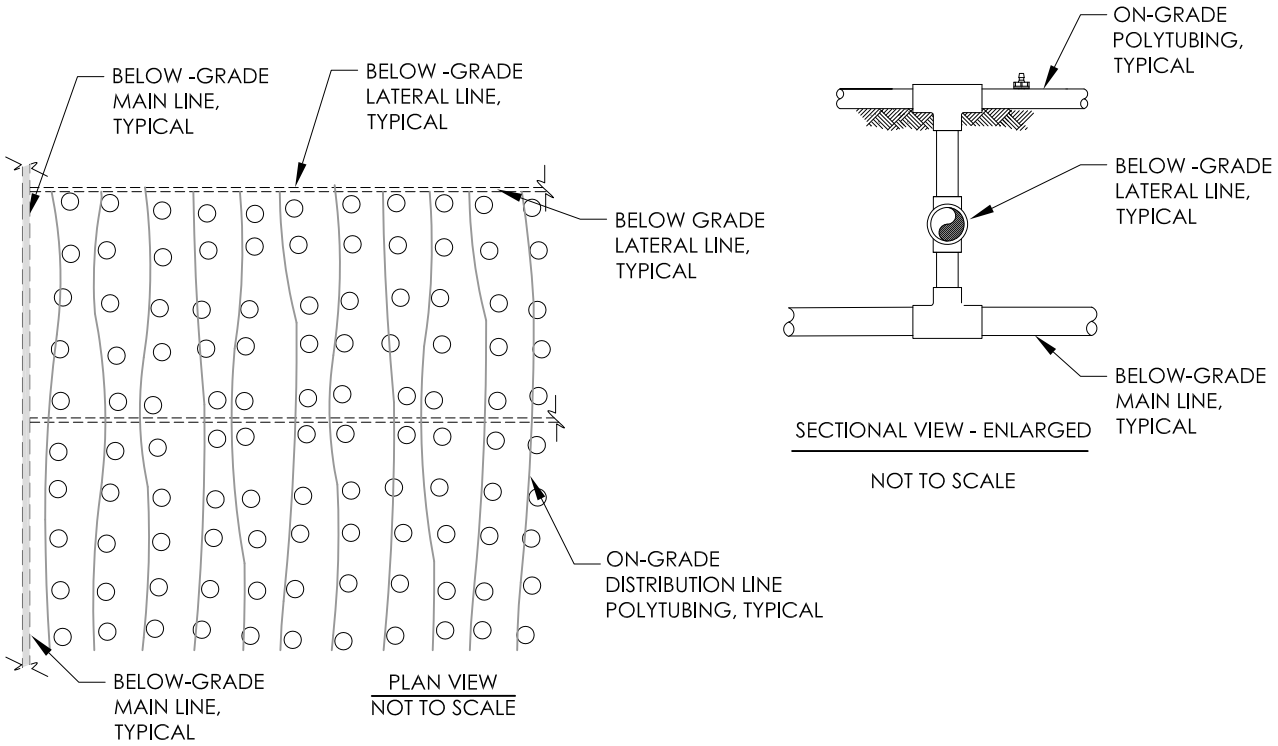
1 PLANTING OAK SEEDLING WITH SHELTER

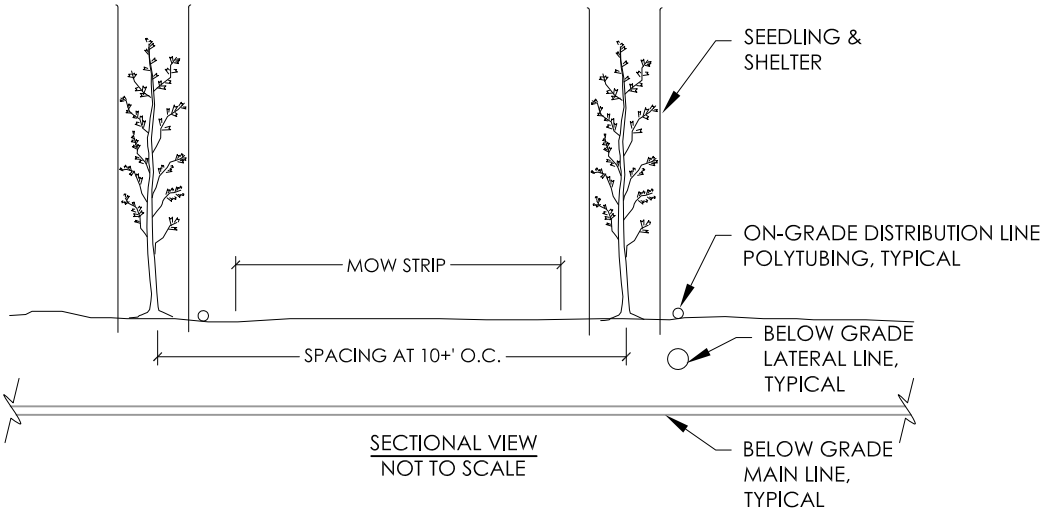
Detail for Oak Seedling Planting

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ATTACHMENT F

Conceptual Irrigation Layout and Guidelines for Irrigating Oak Seedlings and Acorns



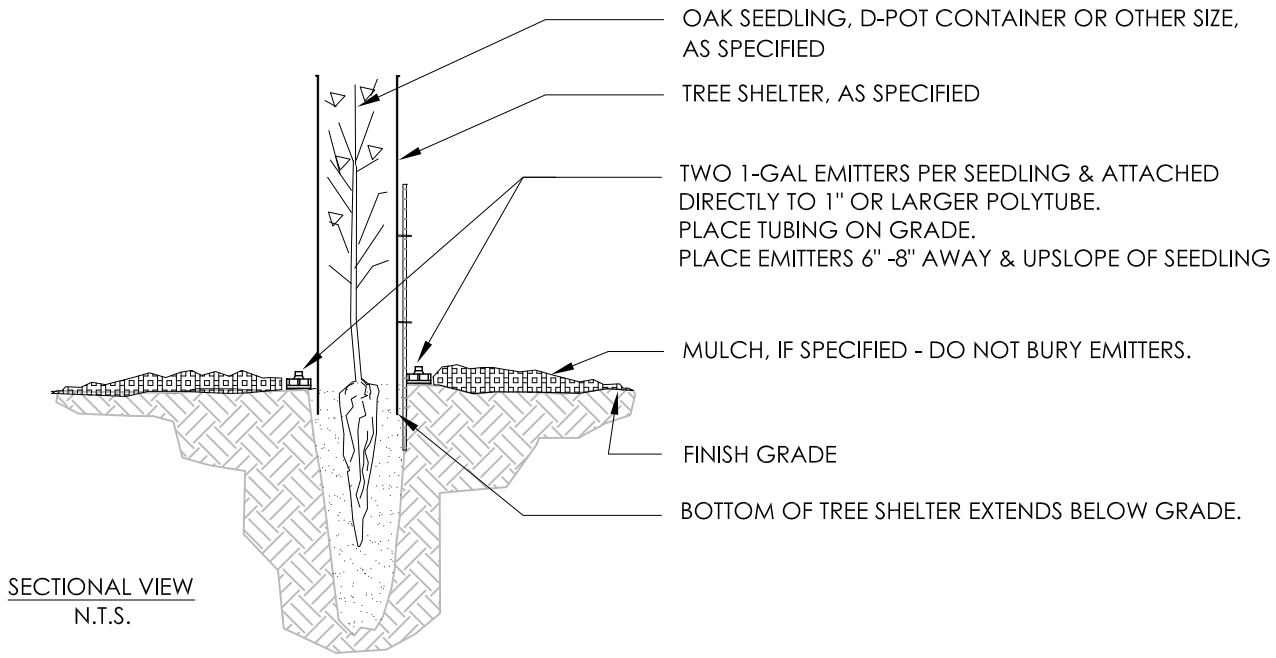


1. TO HELP ENSURE SUCCESS OF CANOPY COVER MITIGATION, PLANT OAK SEEDLINGS AT A DENSITY OF 400 TREES/ACRE.
2. SPACING SHALL BE EQUAL TO OR GREATER THAN 10' O.C.
3. PLANT IN UNDULATING (NOT STRAIGHT) ROWS TO MIMIC NATURAL PATTERN OF OAK WOODLAND.
4. TO ALLOW FOR ANNUAL MOWING, IRRIGATION MAINLINES & LATERAL LINES SHALL BE BURIED AND DISTRIBUTION LINES SHALL RUN IN ONE DIRECTION ONLY. SPACING BETWEEN DISTRIBUTION LINES SHALL EXCEED WIDTH OF MOWER.

4 CONCEPTUAL IRRIGATION LAYOUT FOR OAK SEEDLINGS & ACORNS

X:\2003-019 Gencorp\Landscape\Oak sdlng plant Spcing.dwg, 4/7/2009 10:20:55 AM, Adobe PDF

Detail for Oak Irrigation System Layout



SECTIONAL VIEW
N.T.S.

1. AT THE BEGINNING OF THE DRY SEASON, WATER SEEDLINGS DEEPLY, MOISTENING THE SURROUNDING SOIL TO A DEPTH OF AT LEAST 2'.

2. WATER INFREQUENTLY AND DEEPLY DURING THE DRY SEASON. SEE BELOW FOR TYPICAL IRRIGATION SCHEDULE, WHICH IS MEANT AS A GUIDE TO DETERMINE IRRIGATION FREQUENCY. ACTUAL SCHEDULE WILL BE DEPENDENT ON SOIL TYPE, EXPOSURE, AND LOCALE OF PLANTINGS. FOR EACH SUBSEQUENT WATERING, MOISTEN SURROUNDING SOIL TO A DEPTH OF AT LEAST 1'. NEWLY PLANTD SEEDLINGS WILL REQUIRE MORE FREQUENT WATERINGS.

3. ON LARGE-TRACK PLANTINGS, USE SOIL MOISTURE SENSOR WITH REMOTE CONTROL READER TO GUAGE WHEN SOIL IS DRY AND PLANTINGS SHOULD BE WATERED.

4. WATER DELIVERY DURING EACH WATERING CYCLE MUST PROVIDE ENOUGH WATER TO MOISTEN SOIL WITHIN TREE SHELTER.

IRRIGATION SCHEDULE GUIDELINES FOR OAK SEEDLINGS & ACORNS

SEASON	GOAL	YEAR 1	YEAR 2	YEAR 3	YEAR 4
MID SPRING (TYPICALLY MID APRIL)	DEEP WATER, MOISTENING SOIL TO DEPTH OF 2'+.	ONCE	ONCE	ONCE	ONCE, IF NEEDED
EARLY SUMMER	DEEP WATER, MOISTENING SOIL TO DEPTH OF 1'+.	ONCE / 2 WEEKS	ONCE / 3 WEEKS	ONCE / 4 WEEKS	MONITOR ONLY
LATE SUMMER	DEEP WATER, MOISTENING SOIL TO DEPTH OF 1'+.	ONCE / 3 WEEKS	ONCE / 3-4 WEEKS	ONCE / 4 WEEKS IF NEEDED	MONITOR ONLY
FALL - MID SPRING	NO WATERING REQUIRED	NONE	NONE	NONE	SYSTEM DISCONNECTED

3 IRRIGATING OAK SEEDLINGS & ACORNS

Detail for Oak Seedling Irrigation

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ATTACHMENT B

Tree Survey Table

OBJECTID *	Tree #	Species	DBH	DBH_Type	Number of Stems	Stem Description	Dripline	Height (ft.)	Structure	Health	Comment	Staff Name	ORMP_Impact	In GIS Point Data	Heritage Tree
211	No access	Inaccessible oak tree	27										Yes	Yes	No
212	No access	Inaccessible oak tree	27										Yes	Yes	No
243		Inaccessible oak tree	27								Inaccessible trees	KWB	Yes	Yes	No
245		Inaccessible oak tree	27								Inaccessible interior oak tree		Yes	Yes	No
246		Inaccessible oak tree	27								Inaccessible interior oak tree		Yes	Yes	No
248		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
249		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
265		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
267		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
270		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
272		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
274		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
275		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
276		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
277		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
282		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
283		Inaccessible oak tree	27								Inaccessible oak tree	KWB	Yes	Yes	No
284		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
288		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
289		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
290		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
299		Inaccessible oak tree	27								A bunch of inaccessible oak trees		Yes	Yes	No
314		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
316		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
318		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
319		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
318		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
319		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
320		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
322		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
323		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
325		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
326		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
327		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
328		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
329		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
330		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
331		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
333		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
334		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
337		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
338		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
339		Inaccessible oak tree	27								Inaccessible oak tree		Yes	Yes	No
375	Inaccess	Inaccessible oak tree	27								Interior live oak 30 ft, chapparral		Yes	Yes	No
377	Inaccessible no data	Inaccessible oak tree	27										Yes	Yes	No
379	Live oak no access	Inaccessible oak tree	27										Yes	Yes	No
380	Live oak	Inaccessible oak tree	27								30 ft tall no access		Yes	Yes	No
381	Live oaks	Inaccessible oak tree	27								3 live oaks, 35 ft tall, no acces		Yes	Yes	No
384	Live oak	Inaccessible oak tree	19					35			No access chapparal		Yes	Yes	No
386	No access	Inaccessible oak tree	10										Yes	Yes	No
397	No access	Inaccessible oak tree	27										Yes	Yes	No
398	No access	Inaccessible oak tree	27										Yes	Yes	No
402	No access	Inaccessible oak tree	16								Plus ft	Bw	Yes	Yes	No

OBJECTID *	Tree #	Species	DBH	DBH_Type	Number of Stems	Stem Description	Dripline	Height (ft.)	Structure	Health	Comment	Staff Name	ORMP_Impact	In GIS Point Data	Heritage Tree
403	No access	Inaccessible oak tree	27								Oak 40 plus ft no		Yes	Yes	No
404	No access	Inaccessible oak tree	27								Be oak 40 plus ft no access		Yes	Yes	No
407	No access	Inaccessible oak tree	6								Oak above 40 ft tall, chaparral		Yes	Yes	No
409	No access	Inaccessible oak tree	27								Oak above 40 ft tall, no access, chappasrral	Bw	Yes	Yes	No
410	No access	Inaccessible oak tree	27								Oak above 45 ft, no access	Bw	Yes	Yes	No
414	No access	Inaccessible oak tree	12										Yes	Yes	No
415	No access	Inaccessible oak tree	27										Yes	Yes	No
416	No access	Inaccessible oak tree	27										Yes	Yes	No
486	Live oak n access	Inaccessible oak tree	38								No access chaparral, about 35 ft tall		Yes	Yes	Yes
489	No access	Inaccessible oak tree	7										Yes	Yes	No
492	Live oak no access	Inaccessible oak tree	11								30 ft live oak, chapparral	Bw	Yes	Yes	No
493	Live oak no access	Inaccessible oak tree	27								Live oak about 35 ft, no access, chaparral	Bw	Yes	Yes	No
519	Live oaks	Inaccessible oak tree	24								No access, probably 3 avg 25 ft in height	Bw	Yes	Yes	No
520	Liv oak	Inaccessible oak tree	27								No access, good health, 35 ft tall	Bw	Yes	Yes	No
523	Live oak	Inaccessible oak tree	10								No access	Bw	Yes	Yes	No
568	Live oak	Inaccessible oak tree	9.5								Live oak 35 ft tall, omacces chaparal	Bw	Yes	Yes	No
569	Live oak	Inaccessible oak tree	27					30			Live oak 35 ft, no access chaparal		Yes	Yes	No
570	No access	Inaccessible oak tree	27										Yes	Yes	No
571	Live oak	Inaccessible oak tree	27					30	Fair	Poor	No access chaparral, crown dieback visible in canopy	Bw	Yes	Yes	No
573	Live oak	Inaccessible oak tree	11					35			Live oak, no access chaparral, 35 ft tall		Yes	Yes	No
574	No access	Inaccessible oak tree	27								No access no visual	Bw	Yes	Yes	No
584	Live oak	Inaccessible oak tree	27								35 ft live oak, no access chaparral	Bw	Yes	Yes	No
585	Liv oak	Inaccessible oak tree	27								Live oak, 30ft tall, 20 ft drip line, observed from 25 ft away , 2 stems estd 8,5, good health and structure	Bw	Yes	Yes	No
625	No access	Inaccessible oak tree	23.5										Yes	Yes	No
626	No access poison oak,	Inaccessible oak tree	27										Yes	Yes	No
637	No access	Inaccessible oak tree	24	Estimated DBH							No access poison oak	Bw	Yes	Yes	No
142	938	Black Oak	44	Actual DBH	2	30,14	45	40	Fair to Poor	Fair		KWB	Yes	Yes	Yes
435	1513	Black Oak	13	Actual DBH	1		25	40	Poor	Fair to Poor		KWB + AY	Yes	Yes	No
441	1518	Black Oak	27	Actual DBH	1		30	30	Poor	Fair to Poor		KWB + AY	Yes	Yes	No
18	807	Blue Oak	26	Actual DBH			25	40	Good	Good		Cbp	Yes	Yes	No
20	808	Blue Oak	26.5		1		25	40	Good	Good		Cbp	Yes	Yes	No
21	809	Blue Oak	54	Estimated DBH			40	50	Good	Good		Cbp	Yes	Yes	Yes
22	810	Blue Oak	22.5				25	45	Fair to Good	Fair to Good		Cbp	Yes	Yes	No
23	811	Blue Oak	16.5	Actual DBH	2	9, 7.5	15	30	Fair	Fair		Cbp	Yes	Yes	No
25	812	Blue Oak	23	Actual DBH	6		10	25	Fair	Fair		Cbp	Yes	Yes	No
27	813	Blue Oak	20.5	Actual DBH	4	4.5, 6, 5, 5	10	25	Fair	Fair		Cbp	Yes	Yes	No
28	814	Blue Oak	19	Actual DBH				35	Fair	Fair		Cbp	Yes	Yes	No
29	815	Blue Oak	20	Actual DBH	2	15, 5	25	35	Fair	Fair to Good		Cbp	Yes	Yes	No
39	818	Blue Oak	13				25	35	Fair	Fair		Cbp	Yes	Yes	No
41	819	Blue Oak	11	Estimated DBH			25	35	Fair	Fair		Cbp	Yes	Yes	No
46	821	Blue Oak	7.5	Actual DBH			15	25	Fair to Good	Fair to Good		Cbp	Yes	Yes	No
52	822	Blue Oak	17				30	35	Fair to Good	Fair to Good		Cbp	Yes	Yes	No
54	823	Blue Oak	11.5	Actual DBH			20	45	Fair	Fair to Poor		Cbp	Yes	Yes	No
58	824	Blue Oak	8	Actual DBH			15	40	Fair	Fair		Cbp	Yes	Yes	No
59	825	Blue Oak	7				15	30	Poor	Poor		Cbp	Yes	Yes	No
61	826	Blue Oak	12.5				25	40	Good	Fair to Good		Cbp	Yes	Yes	No
62	827	Blue Oak	10	Actual DBH			30	45	Fair	Fair		Cbp	Yes	Yes	No
63	828	Blue Oak	7	Actual DBH			15	30	Poor	Fair to Poor		Cbp	Yes	Yes	No
64	829	Blue Oak	8				35	25	Fair to Poor	Fair		Cbp	Yes	Yes	No
65	830	Blue Oak	10.5				25	35	Fair	Good		Cbp	Yes	Yes	No

OBJECTID *	Tree #	Species	DBH	DBH_Type	Number of Stems	Stem Description	Dripline	Height (ft.)	Structure	Health	Comment	Staff Name	ORMP_Impact	In GIS Point Data	Heritage Tree
67	831	Blue Oak	7.5				15	35	Good	Fair to Good		Cbp	Yes	Yes	No
70	833	Blue Oak	7				15	30	Fair to Good	Fair to Good		Cbp	Yes	Yes	No
71	834	Blue Oak	15	Actual DBH	2	8,7	20	25	Fair	Fair to Poor		Cbp	Yes	Yes	No
72	835	Blue Oak	15	Estimated DBH			35	35	Good	Good		Cbp	Yes	Yes	No
75	837	Blue Oak	10				35	50	Fair to Good	Fair to Good		Cbp	Yes	Yes	No
78	917	Blue Oak	11	Actual DBH	1		10	16	Good	Fair		KWB	Yes	Yes	No
80	838	Blue Oak	13	Actual DBH	2	7.5,5.5	25	35	Fair to Poor	Fair		Cbp	Yes	Yes	No
91	525	Blue Oak	34	Actual DBH	1		11	32	Poor	Fair		LT	Yes	Yes	No
95	845	Blue Oak	7.5	Actual DBH			25	35	Good	Good		Cbp	Yes	Yes	No
104	530	Blue Oak	56	Estimated DBH	1		18	40	Poor	Poor		LT	Yes	Yes	Yes
105	925	Blue Oak	18	Actual DBH			17	20	Poor	Poor	Top half broke off, resprouting from top (multiple)	KWB	Yes	Yes	No
109	532	Blue Oak	48	Actual DBH	1		18	38	Fair	Good		LT	Yes	Yes	Yes
110	927	Blue Oak	24	Estimated DBH			24	45	Fair	Fair to Poor	Poison oak	KWB	Yes	Yes	No
122	933	Blue Oak	40	Actual DBH			35	47	Good	Good		KWB	Yes	Yes	Yes
126	537	Blue Oak	65	Estimated DBH			18	45	Poor	Poor		LT	Yes	Yes	Yes
128	850	Blue Oak	15.5	Actual DBH			40	50	Fair to Good	Fair to Good	Shelf fungus	Cbp	Yes	Yes	No
129	539	Blue Oak	6	Actual DBH	1		4	15	Fair	Fair		LT	Yes	Yes	No
130	540	Blue Oak	7	Actual DBH	1		5	18	Fair to Good	Good		LT	Yes	Yes	No
131	541	Blue Oak	7	Actual DBH	2	4,3	6	12	Poor	Fair to Poor		LT	Yes	Yes	No
132	851	Blue Oak	8				25	35	Good	Fair to Good		Cbp	Yes	Yes	No
133	542	Blue Oak	42	Actual DBH	1		45	55	Good	Fair to Good		LT	Yes	Yes	Yes
135	853	Blue Oak	17		2	9,8	25	35	Fair to Poor	Good		Cbp	Yes	Yes	No
137	941	Blue Oak	46	Actual DBH			35	45	Fair	Fair		KWB	Yes	Yes	Yes
141	937	Blue Oak	30	Actual DBH			45	50	Fair to Good	Fair		KWB	Yes	Yes	No
146	945	Blue Oak	56	Actual DBH			30	20	Poor	Poor	Branch broken on ground but still alive	KWB	Yes	Yes	Yes
147	946	Blue Oak	44.5	Actual DBH			40	50	Fair to Good	Fair to Good		KWB	Yes	Yes	Yes
148	947	Blue Oak	36	Actual DBH			33	50	Good	Fair to Good		KWB	Yes	Yes	Yes
151	544	Blue Oak	17	Actual DBH	1		25	30	Good	Good		Baw	Yes	Yes	No
154	546	Blue Oak	17	Estimated DBH	1		15	25	Fair to Good	Poor	No tag	Baw	Yes	Yes	No
155	547	Blue Oak	16	Actual DBH			30	27	Good	Fair to Good		Baw	Yes	Yes	No
156	548	Blue Oak	12.5				20	25	Good	Good		Baw	Yes	Yes	No
160	551	Blue Oak	13	Actual DBH	1		25	30	Fair	Fair to Good		Bw	Yes	Yes	No
165	556	Blue Oak	28		2	13,15	30	35	Good	Good	Stem in bounds		Yes	Yes	No
225	610	Blue Oak	12.5	Actual DBH			20	25	Fair	Good		Bw	Yes	Yes	No
342		Blue Oak	18	Estimated DBH	2	6,12	10	15	Fair to Good	Fair to Good		KWB	Yes	Yes	No
343		Blue Oak	18	Estimated DBH	2	12,6	15	25	Fair to Good	Good		KWB	Yes	Yes	No
356	611	Blue Oak	14	Actual DBH			15	40	Good	Good		Bw	Yes	Yes	No
357	612	Blue Oak	10	Actual DBH	1		15	25	Fair to Good	Fair to Good		Bw	Yes	Yes	No
358	613	Blue Oak	7	Actual DBH			15	20	Fair	Fair to Good			Yes	Yes	No
361	Blue oak, estimated	Blue Oak	14	Estimated DBH	1		20	45	Good	Good	No tag	Bw	Yes	Yes	No
366	1503	Blue Oak	42	Actual DBH	1		35	45	Fair to Good	Fair to Good		KWB+ AY	Yes	Yes	Yes
368	1505	Blue Oak	40	Actual DBH	1		37	47	Good	Fair to Good		KWB + AY	Yes	Yes	Yes
372	1507	Blue Oak	46	Actual DBH	1		28	48	Fair	Fair		KWB + AY	Yes	Yes	Yes
376	1508	Blue Oak	32	Actual DBH	1		25	47	Fair to Poor	Fair to Poor		KWB + AY	Yes	Yes	No
378	1509	Blue Oak	39	Actual DBH	1		28	53	Fair to Good	Fair to Good		KWB + AY	Yes	Yes	Yes
382	1510	Blue Oak	23	Actual DBH	1		22	55	Fair to Poor	Fair to Poor		KWB + AY	Yes	Yes	No
399	626	Blue Oak	23	Estimated DBH	1		30	45	Good	Good		Bw	Yes	Yes	No
411	630	Blue Oak	23	Actual DBH	2	14,6	15	25	Good	Good		Bw	Yes	Yes	No
412	Blue oak	Blue Oak	20	Estimated DBH			10	18	Good	Good	Estimated rattle snake	Bw	Yes	Yes	No
413	Blue oak	Blue Oak	6	Estimated DBH			20	25	Good	Fair to Good	Estimated, rattlesnake	Bw	Yes	Yes	No
419	631	Blue Oak	23	Actual DBH	2	12,13.5	15	25	Good	Good		Bw	Yes	Yes	No

OBJECTID *	Tree #	Species	DBH	DBH_Type	Number of Stems	Stem Description	Dripline	Height (ft.)	Structure	Health	Comment	Staff Name	ORMP_Impact	In GIS Point Data	Heritage Tree
420	632	Blue Oak	25.5	Actual DBH			25	30	Fair	Fair to Good		Bw	Yes	Yes	No
423	634	Blue Oak	23	Estimated DBH			10	15	Poor	Poor		Bw	Yes	Yes	No
424	Blue oak	Blue Oak	18	Estimated DBH			15	25	Fair	Poor	No tag, poison oak	Bw	Yes	Yes	No
439	1517	Blue Oak	47	Actual DBH	1		40	55	Fair to Good	Fair to Poor		KWB + AY	Yes	Yes	Yes
445	1521	Blue Oak	53	Actual DBH	1		20	65	Fair to Poor	Fair to Poor		KWB + AY	Yes	Yes	Yes
446	1522	Blue Oak	49	Actual DBH	1		30	65	Fair to Good	Fair to Good		KWB + AY	Yes	Yes	Yes
447	1523	Blue Oak	33	Actual DBH	1		40	43	Fair to Good	Fair		KWB + AY	Yes	Yes	No
448	1524	Blue Oak	46	Actual DBH	1		22	45	Fair	Fair		KWB + AY	Yes	Yes	Yes
450	1526	Blue Oak	43	Actual DBH	1		20	50	Fair	Fair		KWB + AY	Yes	Yes	Yes
451	1527	Blue Oak	35	Actual DBH	1		25	55	Fair	Fair		KWB + AY	Yes	Yes	No
454	1530	Blue Oak	42	Actual DBH	1		40	45	Fair	Fair to Good		KWB + AY	Yes	Yes	Yes
455	1531	Blue Oak	32	Actual DBH	1		40	60	Fair to Good	Fair		KWB + AY	Yes	Yes	No
456	1532	Blue Oak	36	Actual DBH	1		35	57	Fair	Fair		KWB + AY	Yes	Yes	Yes
457	1533	Blue Oak	54.5	Actual DBH	1		30	50	Fair	Fair to Good		KWB + AY	Yes	Yes	Yes
459	1535	Blue Oak	34	Actual DBH	1		40	55	Fair	Fair to Good		KWB + AY	Yes	Yes	No
461	1537	Blue Oak	30	Actual DBH	1		35	45	Fair to Poor	Fair to Poor	.	KWB + AY	Yes	Yes	No
462	1538	Blue Oak	29	Actual DBH	1		40	55	Fair to Good	Fair		KWB + AY	Yes	Yes	No
465	1541	Blue Oak	29	Actual DBH	1		35	45	Fair to Poor	Fair		KWB + AY	Yes	Yes	No
466	1542	Blue Oak	25.5	Actual DBH	1		10	42	Fair	Fair		KWB + AY	Yes	Yes	No
467	1543	Blue Oak	15.5	Actual DBH	1		15	35	Fair to Poor	Fair		KWB + AY	Yes	Yes	No
468	1544	Blue Oak	10.5	Actual DBH	1		25	45	Fair to Poor	Fair		KWB + AY	Yes	Yes	No
469	0	Blue Oak	21.5	Estimated DBH	1		25	45	Fair	Fair to Poor		KWB + AY	Yes	Yes	No
470	0	Blue Oak	15	Estimated DBH	1		25	45	Fair	Fair to Poor		KWB + AY	Yes	Yes	No
502	1555	Blue Oak	20	Actual DBH			20	35	Fair	Fair		KWB	Yes	Yes	No
503	1556	Blue Oak	21	Estimated DBH	5	7,7.5,6,11,14	15	40	Fair	Fair		KWB	Yes	Yes	No
504	1557	Blue Oak	45.5	Actual DBH			30	50	Fair	Fair		KWB	Yes	Yes	Yes
505	1558	Blue Oak	27.5	Actual DBH			15	25	Fair to Good	Fair		KWB	Yes	Yes	No
506	1559	Blue Oak	14.5	Actual DBH			10	10	Poor	Fair to Poor		KWB	Yes	Yes	No
508	1561	Blue Oak	32.5	Actual DBH				45	Fair to Poor	Fair to Poor		KWB	Yes	Yes	No
510	1563	Blue Oak	15.5	Actual DBH			12	25	Fair	Fair		KWB	Yes	Yes	No
515	1566	Blue Oak	44.5	Estimated DBH			20	12	Poor	Fair to Poor		KWB	Yes	Yes	Yes
518		Blue Oak	46	Estimated DBH			25	35	Good	Fair to Good		KWB	Yes	Yes	Yes
522	641	Blue Oak	44	Actual DBH			15	30	Good	Poor	Adventitious shoots all over	Bw	Yes	Yes	Yes
531	1570	Blue Oak	38.5	Actual DBH	2	6,4	5	10	Fair to Poor	Fair to Good		KWB	Yes	Yes	Yes
532	1571	Blue Oak	10	Actual DBH			10	37	Fair to Good	Fair		KWB	Yes	Yes	No
533	1572	Blue Oak	17	Actual DBH			10	30	Fair	Fair		KWB	Yes	Yes	No
534	1573	Blue Oak	12	Actual DBH			15	35	Fair to Good	Fair		KWB	Yes	Yes	No
535		Blue Oak	17	Estimated DBH			5	20	Fair to Good	Fair		KWB	Yes	Yes	No
537	1575	Blue Oak	15	Actual DBH			5	15	Fair	Fair		KWB	Yes	Yes	No
538	1576	Blue Oak	8	Actual DBH			20	30	Fair to Poor	Fair		KWB	Yes	Yes	No
539	1577	Blue Oak	23.5	Estimated DBH		15,10,10,8	15	20	Fair to Poor	Fair		KWB	Yes	Yes	No
542	1578	Blue Oak	18	Actual DBH	2	11.5,12	15	30	Fair	Fair		KWB	Yes	Yes	No
543		Blue Oak	23.5	Estimated DBH			5	20	Fair to Good	Fair to Good		KWB	Yes	Yes	No
544	1579	Blue Oak	6	Actual DBH			20	30	Fair	Fair		KWB	Yes	Yes	No
545		Blue Oak	14	Estimated DBH			15	30	Fair	Fair		KWB	Yes	Yes	No
548		Blue Oak	24	Estimated DBH			15	30	Fair to Good	Fair to Good		KWB	Yes	Yes	No
550	1581	Blue Oak	18	Actual DBH	2	15,11.5	15	35	Good	Fair to Good		KWB	Yes	Yes	No
551	1582	Blue Oak	26.5	Actual DBH			15	30	Fair to Good	Fair to Good		KWB	Yes	Yes	No
553		Blue Oak	10.5	Estimated DBH			5	30	Fair	Fair to Poor		KWB	Yes	Yes	No
556	1586	Blue Oak	12	Actual DBH			15	35	Fair to Good	Fair to Good		KWB	Yes	Yes	No
557	1587	Blue Oak	19	Actual DBH			22	40	Fair	Fair to Good		KWB	Yes	Yes	No

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559	1589	Blue Oak	13	Estimated DBH	3	16.5,17,20,10	20	30	Fair	Fair		KWB	Yes	Yes	No
560	1590	Blue Oak	63.5	Actual DBH			15	38	Fair to Good	Fair to Good		KWB	Yes	Yes	Yes
561	1591	Blue Oak	20	Actual DBH	2	8.5,6	8	35	Fair to Good	Fair		KWB	Yes	Yes	No
562	1592	Blue Oak	14.5	Actual DBH	3	10,6,3	10	20	Fair to Good	Fair to Good		KWB	Yes	Yes	No
563	1593	Blue Oak	19	Actual DBH			6	27	Fair to Good	Fair to Good		KWB	Yes	Yes	No
564	1594	Blue Oak	9.5	Actual DBH			5	25	Fair to Good	Fair		KWB	Yes	Yes	No
565	1595	Blue Oak	7				10	20	Fair to Good	Fair to Good		KWB	Yes	Yes	No
9	507	Live Oak	13	Estimated DBH	4	2,2,5,4	8	16	Good	Good	No tag	LT	Yes	Yes	No
16	806	Live Oak	18	Actual DBH	3	9, 6, 3	20	35	Fair to Poor	Fair to Poor	Quwi	Cbp	Yes	Yes	No
34	816	Live Oak	8		2	4.5, 3.5	20	20	Fair	Good	Quwi	Cbp	Yes	Yes	No
36	817	Live Oak	10	Actual DBH	2	8, 10	20	35	Fair	Good	Quwi	Cbp	Yes	Yes	No
44	820	Live Oak	11	Actual DBH	11	3,4.5,3.5	10	15	Poor	Poor	Quwi	Cbp	Yes	Yes	No
69	832	Live Oak	7	Actual DBH			10	15	Poor	Fair to Poor	Quch	Cbp	Yes	Yes	No
73	836	Live Oak	17	Actual DBH	5	4.5,2,3,4.5,3	20	30	Good	Good	Quch	Cbp	Yes	Yes	No
81	521	Live Oak	45	Actual DBH	3	14,14,17	14	20	Fair	Fair to Good		LT	Yes	Yes	Yes
83	839	Live Oak	28	Actual DBH	5	6,6.5,6.5,9	25	40	Fair to Good	Fair to Good	Quwi	Cbp	Yes	Yes	No
84	522	Live Oak	10	Actual DBH	2	6,4	8	18	Poor	Fair to Poor		LT	Yes	Yes	No
86	840	Live Oak	11.5	Actual DBH	2	7,4.5	30	30	Fair to Good	Good	Quwi	Cbp	Yes	Yes	No
87	841	Live Oak	16.5		2	9.5,7	30	40	Fair to Good	Good	Quwi	Cbp	Yes	Yes	No
88	842	Live Oak	55.5	Estimated DBH	12	5,3.5,6,5,8,6,4,6,3,3,3,3	40	40	Fair	Good	Quwi	Cbp	Yes	Yes	Yes
89	843	Live Oak	36.5	Actual DBH	7	7.5,5,7,7.5,1,3.5,5	30	30	Fair	Fair	Quwi	Cbp	Yes	Yes	Yes
92	844	Live Oak	24	Actual DBH	4	6,4.5,7,6.5	35	35	Fair	Good	Quwi	Cbp	Yes	Yes	No
99	529	Live Oak	50	Estimated DBH	1			30	DEAD	DEAD		LT	Yes	Yes	Yes
102	923	Live Oak	34	Actual DBH			30	45	Fair	Fair to Good	Canyon	KWB	Yes	Yes	No
106	846	Live Oak	20.5	Actual DBH	4	6,5,5.5,4	25	25	Fair to Good	Good	Quch	Cbp	Yes	Yes	No
107	531	Live Oak	110	Estimated DBH	4	28,24,18,40	30	35	Fair	Fair to Good		LT	Yes	Yes	Yes
111	847	Live Oak	14	Actual DBH	3	7.5,4.5,2	20	25	Fair	Fair to Good	Quwi	Cbp	Yes	Yes	No
114	533	Live Oak	12	Estimated DBH	10	1,1,1,1,1,2,2,2,2,3	4	10	Fair	Fair to Good		LT	Yes	Yes	No
115	848	Live Oak	27.5	Actual DBH	3	12,7,8.5,	35	45	Fair to Good	Good	Quwi		Yes	Yes	No
116	534	Live Oak	13	Estimated DBH	8	2,2,2,2,2,1,1,1	4	10	Fair	Good		LT	Yes	Yes	No
118	849	Live Oak	21.5	Actual DBH	5	3.5,5,4.5,3,5.5	20	25	Fair to Good	Fair to Good	Quwi	Cbp	Yes	Yes	No
134	852	Live Oak	11.5	Actual DBH	2	5,6.5	20	30	Fair to Good	Fair to Good	Quch	Cbp	Yes	Yes	No
152	545	Live Oak	32	Actual DBH		2.5,2.5,2.5,2.5,3,3.5,2,3.5,2,1.5	10	15	Good	Good	Canyon live oak		Yes	Yes	No
157	549	Live Oak	26		2	12.5,13.5	25	25	Fair to Poor	Fair			Yes	Yes	No
158	550	Live Oak	10		1		20	25	Fair to Good	Good	Canyon		Yes	Yes	No
161	552	Live Oak	10		4		15	18	Fair	Fair to Good			Yes	Yes	No
162		Live Oak	12	Actual DBH	2	5.5,7	18	22	Poor	Poor	Canyon		Yes	Yes	No
163	554	Live Oak	23.5		8	4,1,4.5,2,5,3.5,1.5,2	15	20	Fair to Good	Good	Canyon		Yes	Yes	No
164	555	Live Oak	44.5	Actual DBH	8	8,8,9,2.5,6.5,4.5,3,3	25	30	Good	Fair	Canyon		Yes	Yes	Yes
167	557	Live Oak	35.5		8	8,1.5,1.5,4,5.5,6,3,6	25	25	Fair	Fair to Good	Canyon, fairy ring		Yes	Yes	No
168	558	Live Oak	47.5		9	5,8,5,7,4,2,5.5,6,5	20	30	Fair	Fair to Good	Canyon, fairy ring		Yes	Yes	Yes
169	559	Live Oak	59.5	Actual DBH	9	7,7,5,6.5,8.5,4.5,8,8,5	20	30	Fair	Fair			Yes	Yes	Yes
170	560	Live Oak	5.5	Actual DBH			12	15	Fair	Fair			Yes	Yes	No
171	562	Live Oak	10.5	Actual DBH	2	5,5.5	15	30	Fair	Fair			Yes	Yes	No
172	561	Live Oak	15.5		2	6.5,9	22	26	Fair to Good	Fair to Good	Canyon		Yes	Yes	No
173	562	Live Oak	10.5	Actual DBH	2	5,5.5	25	35	Fair	Fair	Canyon	Bw	Yes	Yes	No
174	561	Live Oak	12	Estimated DBH	2	5,7	15	25	Fair to Good	Fair to Good	Canyon	Bw	Yes	Yes	No
175	563	Live Oak	83	Actual DBH	13	10,7,2,3.5,3.5,9,7,8,6.5,5.5,6	25	30	Fair to Good	Good			Yes	Yes	Yes
177	564	Live Oak	17		2	9,8	20	25	Fair to Good	Good	Canyon live		Yes	Yes	No
178	565	Live Oak	55	Actual DBH	8	7,9,6,8.5,8,8,8.5	25	25	Fair	Fair	Canyon		Yes	Yes	Yes
179	566	Live Oak	29.5	Actual DBH	4	8.5,9,9,3	20	30	Fair	Fair to Good	Canyon	Bw	Yes	Yes	No

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180	567	Live Oak	62	Actual DBH	7	9.5,9,12,9,10,5,7.5,	30	35	Fair	Fair	Canyon	Bw	Yes	Yes	Yes
181	568	Live Oak	15	Actual DBH	4	4,4.5,2.5,4	25	25	Fair	Fair to Poor			Yes	Yes	No
182	569	Live Oak	43.5		7	7.5,9,6.5,6.5,6.5,6.5	20	35	Fair to Good	Good	Canyon		Yes	Yes	Yes
183	570	Live Oak	17	Actual DBH	4	5,3.5,4.5,4		25	Fair	Fair to Poor	Canyon	Bw	Yes	Yes	No
184	571	Live Oak	28.5	Actual DBH	6	3.5,8,6.5,3,7.5	20	35	Fair	Fair to Good	Canyon	Bw	Yes	Yes	No
185	572	Live Oak	33.5		5	9,3,10,9,4.5	27	30	Fair to Poor	Fair			Yes	Yes	No
187	574	Live Oak	31.5	Actual DBH	3	12.5,8.5,10.5	30	35	Fair to Good	Fair to Good	Canyon	Bw	Yes	Yes	No
188	575	Live Oak	10	Actual DBH	2	6,4	15	20	Fair	Fair	Canyon	Bw	Yes	Yes	No
189	576	Live Oak	36	Actual DBH	9	3.5,5.5,5,3,3,7,5.5,3.5	20	30	Fair	Fair	Canyon	Bw	Yes	Yes	Yes
190	577	Live Oak	12.5		2	7.5,4,?5	20	30	Fair to Poor	Fair to Poor	Canyon	Bw	Yes	Yes	No
191	578	Live Oak	30.5	Actual DBH	4	6.5,10,5.5,8.5	20	35	Fair	Fair to Good	Canyon	Bw	Yes	Yes	No
192	579	Live Oak	11		3	4.5,1,5.5	15	25	Fair to Poor	Fair	Canyon	Bw	Yes	Yes	No
193	580	Live Oak	24.5	Actual DBH	3	7,10,7.5	20	35	Fair	Fair to Poor		Bw	Yes	Yes	No
194	581	Live Oak	47	Actual DBH	4	14.5,12.5,11,9	35	35	Fair to Poor	Fair to Poor	Canyon	Bw	Yes	Yes	Yes
195	582	Live Oak	14.5			5.5,5.5,3.5,	25	30	Fair	Fair	Canyon		Yes	Yes	No
196	583	Live Oak	33.5	Actual DBH	5	3,5.5,6,11,8	25	30	Fair	Fair to Poor	Canyon	Bw	Yes	Yes	No
197	584	Live Oak	33.5	Actual DBH	6	7,1,6.5,7.5,7,4.5	20	25	Fair to Good	Fair to Good	Canyon	Bw	Yes	Yes	No
198	585	Live Oak	41		7	7.5,7.5,6,7,5,5.5,6.5	20	30	Fair	Fair to Good	Canyon	Bw	Yes	Yes	Yes
199	586	Live Oak	28.5		5	3.5,4.5,8.5,6,6	15	25	Fair to Good	Good			Yes	Yes	No
200	587	Live Oak	27.5	Actual DBH	4	8,8,8,3.5	25	35	Fair to Good	Fair to Good	Canyon	Bw	Yes	Yes	No
201	589	Live Oak	18.5		3	5.5,5,8	15	25	Fair to Poor	Fair to Good	Canyon	Bw	Yes	Yes	No
202	590	Live Oak	26	Actual DBH	4	8,9,3,6	20	35	Fair to Good	Fair to Good		Bw	Yes	Yes	No
204	591	Live Oak	53	Actual DBH	8	8,4,3,11.5,4.5,8,8,6	20	30	Fair to Good	Good	Canyon	Bw	Yes	Yes	Yes
205	592	Live Oak	19.5	Actual DBH	4	8,5,2.5,4	25	25	Fair to Poor	Fair to Poor	Canyon n	Bw	Yes	Yes	No
206	594	Live Oak	36	Actual DBH	4	11,9.5,7,8.5	20	28	Fair to Good	Fair		Bw	Yes	Yes	Yes
207	597	Live Oak	22		4	5.5,6,3,6.5	20	25	Good	Fair to Good		Bw	Yes	Yes	No
208	593	Live Oak	48.5	Actual DBH	6	12.5,4,5.5,4,12.5,10	25	40	Fair	Good	Canyon fairy ring	Bw	Yes	Yes	Yes
209	598	Live Oak	25	Actual DBH	4	9,5,1,10	20	33	Fair	Good	Canyon	Bw	Yes	Yes	No
210	599	Live Oak	11.5				25	30	Good	Good		Bw	Yes	Yes	No
213	600	Live Oak	32.5	Actual DBH	4	7,8,9,8.5	20	30	Good	Good	Canyon	Bw	Yes	Yes	No
215	601	Live Oak	15.5	Actual DBH	3	6,4.5,5	15	20	Fair to Good	Good		Bw	Yes	Yes	No
216	602	Live Oak	25	Estimated DBH	2	14,11	20	15	Poor	Fair to Poor	Canyon	Bw	Yes	Yes	No
217	603	Live Oak	12				15	24	Good	Fair to Good			Yes	Yes	No
218	604	Live Oak	17		2	11,6	20	25	Fair to Good	Fair to Good		Bw	Yes	Yes	No
219	605	Live Oak	21	Actual DBH	2	10,11	15	25	Fair to Good	Good		Bw	Yes	Yes	No
220	No tag	Live Oak	20.5		4	4.5,5,6,5	15	25	Good	Good		Bw	Yes	Yes	No
221	606	Live Oak	16.5	Estimated DBH	2	8,8.5	15	20	Good	Good			Yes	Yes	No
222	607	Live Oak	58	Actual DBH	6	12,9,9,9,11,8	25	30	Fair to Good	Good		Bw	Yes	Yes	Yes
223	608	Live Oak	14.5		2	7.5,7	15	20	Fair	Good	Canyon	Bw	Yes	Yes	No
224	609	Live Oak	20	Actual DBH	3	6.5,6.5,7	15	25	Fair to Good	Good			Yes	Yes	No
226	948	Live Oak	52	Actual DBH	6	11,7,9,10,7,8	16	27	Fair	Fair to Good	Interior	KWB	Yes	Yes	Yes
227	949	Live Oak	26.5	Actual DBH	4	4.5,7,7,8	18	25	Fair	Fair to Good	Interior	KWB	Yes	Yes	No
228	950	Live Oak	37.5	Actual DBH	5	8,8,8,8,5.5		27	Fair	Fair	Interior	KWB	Yes	Yes	Yes
229	951	Live Oak	21	Actual DBH	3	6,7,8	12	27	Fair	Fair to Good	Interior	KWB	Yes	Yes	No
231	952	Live Oak	49.5	Actual DBH	8	7,6,4,7.5,4,7,6.5,7.5	10	16	Fair to Good	Fair	Interior	KWB	Yes	Yes	Yes
232	953	Live Oak	19	Actual DBH	4	6,5.5,4,3.5	11	15	Fair	Fair	Interior	KWB	Yes	Yes	No
233	954	Live Oak	40	Actual DBH	9	4.5,6,4,3,5,4,4.5,4.5,4.5	12	17	Good	Fair to Good	Interior	KWB	Yes	Yes	Yes
234	955	Live Oak	39.5	Actual DBH	8	5.5,3,4,8,6.5,2,5.5,5	12	20	Fair to Good	Good	Interior	KWB	Yes	Yes	Yes
235	956	Live Oak	81.5	Actual DBH	19	5.5,5,6,3,2,6.5,6,4,3.5,5,4,6,	14	18	Good	Fair to Good	Interior	KWB	Yes	Yes	Yes
236	957	Live Oak	30	Estimated DBH	6	8,3,4,5,5,5	12	14	Good	Fair to Good	Interior	KWB	Yes	Yes	No
238	958	Live Oak	10	Estimated DBH	2	4,6	12	12	Good	Fair to Good	Interior	KWB	Yes	Yes	No

OBJECTID *	Tree #	Species	DBH	DBH_Type	Number of Stems	Stem Description	Dripline	Height (ft.)	Structure	Health	Comment	Staff Name	ORMP_Impact	In GIS Point Data	Heritage Tree
239	0	Live Oak	15	Estimated DBH	3	5,8,2	10	15	Good	Fair to Good	Interior	KWB	Yes	Yes	No
240		Live Oak	26	Estimated DBH	6	6,6,5,4,3,2	15	20	Good	Good	Interior	KWB	Yes	Yes	No
241	959	Live Oak	30	Estimated DBH	6	6,6,6,6,6	12	15	Good	Good	Interior, remapped- may be duplicate	KWB	Yes	Yes	No
242	960	Live Oak	18.5	Actual DBH	3	8,5.5,5		23	Fair to Good	Fair to Good	Interior	KWB	Yes	Yes	No
244		Live Oak	29								Inaccessible interior live oak, canopy in project boundary	KWB	Yes	Yes	No
250	0	Live Oak	24	Estimated DBH	2	14,10	16	30	Good	Good	Interior	KWB	Yes	Yes	No
251	0	Live Oak	62	Estimated DBH	5	16,12,16,14,4	15	25	Fair to Good	Fair	Interior	KWB	Yes	Yes	Yes
252	961	Live Oak	15.5	Actual DBH	1		10	25	Good	Fair	Interior	KWB	Yes	Yes	No
254	963	Live Oak	23.5	Actual DBH	3	8,9,6.5	20	15	Fair to Poor	Fair to Good	Interior	KWB	Yes	Yes	No
255	964	Live Oak	9	Actual DBH	1		12	17	Fair	Fair	Interior	KWB	Yes	Yes	No
256	965	Live Oak	20.5	Actual DBH	2	9.5,11	17	23	Fair to Good	Fair to Good	Interior	KWB	Yes	Yes	No
257	966	Live Oak	14.5	Actual DBH	1		14	22	Fair to Good	Fair	Interior	KWB	Yes	Yes	No
258	967	Live Oak	20	Actual DBH	2	8,12	20	27	Fair to Poor	Fair to Good	Interior	KWB	Yes	Yes	No
259	968	Live Oak	8	Actual DBH	1		15	20	Fair to Poor	Fair	Interior	KWB	Yes	Yes	No
260	969	Live Oak	7.5	Actual DBH			12	15	Fair to Poor	Fair	Interior	KWB	Yes	Yes	No
261	970	Live Oak	49.5	Actual DBH	5	11,9,9,10,10.5	22	25	Fair	Fair	Interior	KWB	Yes	Yes	Yes
262	971	Live Oak	56.5	Actual DBH	9	9,7,11,7,8,7,2.5,2.5,2.5	22	22	Fair to Poor	Fair to Good	Interior	KWB	Yes	Yes	Yes
263	972	Live Oak	47	Actual DBH	9	10,10,3,2,2,2,4.5,10.5,3	20	30	Fair	Fair to Good	Interior	KWB	Yes	Yes	Yes
264	973	Live Oak	35.5	Estimated DBH	6	12,8,6,5.5,2,2	15	12	Fair to Poor	Fair to Good	Interior	KWB	Yes	Yes	No
271	974	Live Oak	33.5	Actual DBH	4	11,9,9.5,4	15	20	Fair to Good	Fair to Good	Interior	KWB	Yes	Yes	No
273	975	Live Oak	31.5	Estimated DBH	9	4,4,4,3.5,3.5,3.5,3,3,3	8	13	Fair	Fair to Good	Interior	KWB	Yes	Yes	No
278	976	Live Oak	12	Actual DBH	2	4,8	12	17	Fair to Poor	Good	Interior	KWB	Yes	Yes	No
279	977	Live Oak	14.5	Actual DBH	1		15	22	Fair to Good	Fair to Good	Interior	KWB	Yes	Yes	No
280		Live Oak	8	Estimated DBH	1		10	16	Fair to Poor	Fair to Poor	Interior, inaccessible		Yes	Yes	No
281		Live Oak	16	Estimated DBH	2	8,8	10	25	Fair to Poor	Poor	Interior, inaccessible	KWB	Yes	Yes	No
285	978	Live Oak	66.5	Actual DBH	8	9.5,11,8,11,5,3,6,13	18	25	Fair to Good	Fair to Good	Interior	KWB	Yes	Yes	Yes
286	979	Live Oak	20	Estimated DBH	3	6,6,8	14	18	Fair to Poor	Fair to Good	Interior	KWB	Yes	Yes	No
287	980	Live Oak	40	Actual DBH	5	10.5,6,7.5,9,7	22	30	Fair to Good	Fair	Interior	KWB	Yes	Yes	Yes
291	981	Live Oak	37.5	Actual DBH	4	10,10.5,9,8	25	35	Good	Fair to Good	Interior	KWB	Yes	Yes	Yes
292		Live Oak	14	Estimated DBH	3	5,5,4	10	15	Good	Good	Interior	KWB	Yes	Yes	No
293		Live Oak	8	Estimated DBH			8	12	Fair to Good	Good	Interior	KWB	Yes	Yes	No
294		Live Oak	6	Estimated DBH			10	15	Fair to Good	Good	Interior	KWB	Yes	Yes	No
295		Live Oak	25	Estimated DBH	5	4,4,5,6,6	14	20	Fair to Good	Fair to Good	Interior	KWB	Yes	Yes	No
296	982	Live Oak	23	Actual DBH	3	8,9,6	18	25	Fair to Good	Fair to Good	Interior	KWB	Yes	Yes	No
297	983	Live Oak	23.5	Estimated DBH	4	5,7.5,7,4	17	22	Fair	Fair to Good	Interior	KWB	Yes	Yes	No
298	984	Live Oak	22.5	Actual DBH	4	5.5,7,4,6	20	25	Fair to Good	Fair to Good	Interior	KWB	Yes	Yes	No
300	985	Live Oak	11	Actual DBH	2	3,8	20	20	Fair	Fair	Interior	KWB	Yes	Yes	No
301	986	Live Oak	30	Estimated DBH	4	7.5,7.5,7.5,7.5	18	30	Fair	Fair to Good	Interior	KWB	Yes	Yes	No
302	987	Live Oak	8	Actual DBH	2	6,2	12	16	Fair to Poor	Fair to Poor	Interior	KWB	Yes	Yes	No
303	988	Live Oak	23.5	Actual DBH	4	6.5,6,6,5	17	33	Fair	Fair	Interior	KWB	Yes	Yes	No
304	988	Live Oak	51	Estimated DBH		14,9,3,7,5,8,5							Yes	Yes	Yes
306	990	Live Oak	27	Actual DBH	4	5,9.5,4,8.5	15	20	Good	Fair to Good	Interior	KWB	Yes	Yes	No
307		Live Oak	72	Estimated DBH	6	12,12,12,12,12,12	17	18	Fair to Good	Fair to Good	Interior	KWB	Yes	Yes	Yes
308		Live Oak	12	Estimated DBH	2	6,6	8	14	Good	Fair to Good	Interior	KWB	Yes	Yes	No
309	991	Live Oak	16	Actual DBH	4	6,4,3,3	12	25	Fair to Good	Fair to Good	Interior	KWB	Yes	Yes	No
310	992	Live Oak	20	Actual DBH	3	8,7,5	12	25	Fair to Good	Fair to Good	Interior	KWB	Yes	Yes	No
311	993	Live Oak	18	Actual DBH	2	8.5,9.5	15	18	Good	Fair to Good	Interior	KWB	Yes	Yes	No
312		Live Oak	21	Estimated DBH	3	8,7,6	15	25	Good	Fair to Good	Interior	KWB	Yes	Yes	No
313	994	Live Oak	7	Actual DBH	1		11	17	Good	Good	Interior	KWB	Yes	Yes	No
315		Live Oak	18	Estimated DBH		10,8	10	20	Fair to Good	Fair to Good	Interior	KWB	Yes	Yes	No
317	995	Live Oak	67	Actual DBH	8	11,11.5,8,4,9,7,9.5,7		30	Fair to Good	Fair	Interior	KWB	Yes	Yes	Yes

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321	996	Live Oak	19.5	Estimated DBH	3	5.5,7,7	15	25	Good	Fair to Good	Interior	KWB	Yes	Yes	No
335	998	Live Oak	14	Actual DBH	2	8,6	9	25	Good	Good	Interior	KWB	Yes	Yes	No
336	999	Live Oak	33.5	Estimated DBH	7	6.5,5,5,7,6,4	14	22	Fair to Good	Good	Interior	KWB	Yes	Yes	No
340	1501	Live Oak	36	Estimated DBH	5	8,9,7,6,6	16	30	Fair to Good	Fair to Poor	Interior	KWB	Yes	Yes	Yes
344		Live Oak	16	Estimated DBH	1		20	25	Fair	Fair	Interior	KWB	Yes	Yes	No
355		Live Oak	50	Estimated DBH	3	14,16,20	24	25	Fair to Good	Fair to Good	Interior	KWB	Yes	Yes	Yes
359	614	Live Oak	17.5		4	3,7.5,4,3	15	20	Fair	Fair to Poor		Bw	Yes	Yes	No
360	611	Live Oak	14	Actual DBH	1		20	40	Good	Good			Yes	Yes	No
362	No tag	Live Oak	31.5		7	Avg 4-5 inches	20	30	Fair	Good	Poison oak		Yes	Yes	No
363	615	Live Oak	10				25	30	Fair to Poor	Fair			Yes	Yes	No
367	1504	Live Oak	41	Actual DBH	1		20	25	Poor	Fair to Poor	Interior	KWB + AY	Yes	Yes	Yes
370	1506	Live Oak	38	Actual DBH	1		25	42	Fair	Poor	Interior	KWB + AY	Yes	Yes	Yes
373	616	Live Oak	21.5	Actual DBH	3	11,6,4.5	15	30	Good	Fair to Good			Yes	Yes	No
374	617	Live Oak	13	Actual DBH			25	25	Good	Good		Bw	Yes	Yes	No
385	617	Live Oak	29	Actual DBH	1		15	25	Fair to Good	Fair to Good			Yes	Yes	No
387	620	Live Oak	29	Estimated DBH			15	35	Fair	Fair to Good	Canyon	Be	Yes	Yes	No
388	Live oak	Live Oak	18		2	15,8	25	25	Fair to Poor	Fair	No tag poison oak	Bw	Yes	Yes	No
389	Live oak	Live Oak	23	Estimated DBH	3	4,4,4	10	20	Fair	Fair		Bw	Yes	Yes	No
391	622	Live Oak	19	Actual DBH	1		25	25	Good	Fair to Good	Canyon	Bw	Yes	Yes	No
392	623	Live Oak	12	Actual DBH	3	14.5, 15.5,14.5	25	30	Fair to Good	Good	Canyon	Bw	Yes	Yes	No
393	624	Live Oak	44.5	Actual DBH	3	10,7,10.5	20	25	Poor	Fair	Ca	Bw	Yes	Yes	Yes
394	625	Live Oak	32	Estimated DBH			10	25	Poor	Poor		Bw	Yes	Yes	No
400	627	Live Oak	21	Actual DBH	2	12,9.5	15	25	Poor	Poor		Bw	Yes	Yes	No
401	628	Live Oak	21.5	Actual DBH		8,8	15	20	Poor	Poor		Bw	Yes	Yes	No
405	629	Live Oak	29	Actual DBH			20	25	Fair to Poor	Poor	Lean shelf fung	Bw	Yes	Yes	No
406	Live oak no tag	Live Oak	12	Estimated DBH	1		15	20	Poor	Fair to Poor			Yes	Yes	No
408	Live oak	Live Oak	29				15	20	Good	Good	No access poison oak	Bw	Yes	Yes	No
433	1512	Live Oak	37	Actual DBH	1		20	25	Poor	Fair to Poor	Interior	KWB + AY	Yes	Yes	Yes
436	1514	Live Oak	14	Actual DBH	1		25	35	Fair to Poor	Poor	Interior	KWB + AY	Yes	Yes	No
474		Live Oak	29	Estimated DBH	3	8,15,21	40	45	Fair to Poor	Fair to Good	Interior	KWB + AY	Yes	Yes	No
485	635	Live Oak	29	Actual DBH		13.5,8.5,9,7	15	25	Fair	Fair to Good	Interior	Bw	Yes	Yes	No
487	636	Live Oak	29	Estimated DBH			10	25	Poor	Poor	Severe dieback		Yes	Yes	No
488	637	Live Oak	10	Estimated DBH			20	25	Fair to Good	Fair		Bw	Yes	Yes	No
490	638	Live Oak	29	Actual DBH	10	10,4,11,9,4,10.5	20	30	Fair	Fair to Good		Bw	Yes	Yes	No
491	639	Live Oak	48.5	Estimated DBH	2	6,5	15	25	Fair to Good	Fair to Good	No tag placed	Bw	Yes	Yes	Yes
494	640	Live Oak	29	Actual DBH	9	7.5,5.5,5,5,6,7.5,5,7,6	25	20	Fair to Good	Good		Bw	Yes	Yes	No
495	Live oak	Live Oak	49.5	Estimated DBH	3	8,7,6		35	Good	Fair to Good	Seen from 20ft away	Bw	Yes	Yes	Yes
497	1550	Live Oak	50	Estimated DBH	1		25	35	Fair	Fair	Interior	KWB	Yes	Yes	Yes
507	1560	Live Oak	10	Actual DBH	2	17.5,15	30	27	Fair to Poor	Fair to Poor	Interior	KWB	Yes	Yes	No
509	1562	Live Oak	34.5	Actual DBH			20	30	Poor	Fair	Interior	KWB	Yes	Yes	No
511		Live Oak	11.5	Estimated DBH			20	30	Fair to Poor	Fair to Good	Interior	KWB	Yes	Yes	No
512		Live Oak	12	Estimated DBH			30	60	Fair to Good	Fair	Interior	KWB	Yes	Yes	No
513	1564	Live Oak	20	Estimated DBH			25	33	Fair	Fair	Interior	KWB	Yes	Yes	No
521	Live oak	Live Oak	29	Estimated DBH	7	10,8,4,8,5,9,2	25	25	Fair	Fair to Good	Canyon live, no access, poison oak, a served from 10 ft	Bw	Yes	Yes	No
524	642	Live Oak	29	Actual DBH			20	30	Fair to Good	Fair to Good		Bw	Yes	Yes	No
525	643	Live Oak	14.5	Actual DBH	3	9.5,10.5,12	15	30	Fair	Fair to Good		Bw	Yes	Yes	No
526	Live oak	Live Oak	32					30			No access chaparal	Bw	Yes	Yes	No
527	Live oak	Live Oak	29					35			No access chaparral	Bw	Yes	Yes	No
528		Live Oak	29	Actual DBH			15	25	Good	Fair		Bw	Yes	Yes	No
529	Live oak	Live Oak	9.5					20	Poor	Poor	No access, chaparral, t severe dieback visible n canopy	Bw	Yes	Yes	No

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566	645	Live Oak	9.5		3	8.5,5.5,7	20	30	Fair	Fair to Good		Bw	Yes	Yes	No
567	646	Live Oak	21	Actual DBH			15	25	Good	Fair		Bw	Yes	Yes	No
572	647	Live Oak	29	Actual DBH	3	6,2,3	10	25	Fair	Fair to Good	Interior	Bw	Yes	Yes	No
581	Live oak	Live Oak	29	Estimated DBH			15	30	Fair to Good	Fair to Good	Interior, no tag, poison oak	Bw	Yes	Yes	No
592	1598	Live Oak	24	Estimated DBH		16,8,3	18	23	Poor	Fair	Interior	KWB	Yes	Yes	No
594		Live Oak	24	Estimated DBH			10	25	Fair	Fair to Poor	Interior	KWB	Yes	Yes	No
597	1601	Live Oak	15	Actual DBH	9	12,17,11,7.5,9,6,4,4,8		35	Fair to Poor	Fair	Interior	KWB	Yes	Yes	No
598	1602	Live Oak	78.5	Actual DBH	7	10,5.5,9,9.5,16,8		35	Fair to Poor	Fair		KWB	Yes	Yes	Yes
600	1603	Live Oak	29	Actual DBH			18	40	Good	Fair to Good		KWB	Yes	Yes	No
601	1604	Live Oak	18	Actual DBH	4	9,10,8.5,7.5	15	25	Fair		Interior		Yes	Yes	No
602	1605	Live Oak	35	Actual DBH			8	30	Poor	Fair to Poor	Interior	KWB	Yes	Yes	No
603	1606	Live Oak	9	Actual DBH			8	20	Poor	Poor	Interior	KWB	Yes	Yes	No
609	1612	Live Oak	13.5	Actual DBH	2	8.5,12	15	30	Good	Fair to Good		KWB	Yes	Yes	No
611	1614	Live Oak	13.5	Actual DBH	6	9,9,3.5,10.5,14,11	20	23	Fair	Fair	Interior	KWB	Yes	Yes	No
616	1619	Live Oak	6.5	Actual DBH	7	13,12,6.5,9,5,9.5	24	30	Fair	Fair	Interior	KWB	Yes	Yes	No
617	1620	Live Oak	50	Actual DBH			5	30	Fair	Fair to Poor	Interior	KWB	Yes	Yes	Yes
618	1621	Live Oak	6	Actual DBH			7	35	Fair to Poor	Fair		KWB	Yes	Yes	No
619	1622	Live Oak	9	Actual DBH	2	11,7.5	10	35	Fair	Fair	Interior	KWB	Yes	Yes	No
620	1623	Live Oak	18.5	Actual DBH	2	20,5	7	30	Fair	Fair to Poor		KWB	Yes	Yes	No
621	1624	Live Oak	25	Actual DBH			10	40	Fair	Fair	Interior	KWB	Yes	Yes	No
623	1626	Live Oak	8.5	Estimated DBH	2	20,20	10	30	Poor	Poor	Interior	KWB	Yes	Yes	No
624	1627	Live Oak	40	Actual DBH	2	16,7.5	10	35	Fair to Poor	Poor		KWB	Yes	Yes	Yes
628	1628	Live Oak	29	Actual DBH			18	28	Fair to Good	Fair to Good		KWB	Yes	Yes	No
629	1629	Live Oak	21.5	Actual DBH	25	2,4,10,10,6,2,3,14,2,9,4,10,6	20	30	Poor	Fair	Interior	KWB	Yes	Yes	No
630	1630	Live Oak	156	Actual DBH	4	2,4,10,10,6,2,3,14,2,9,4,10,6	17	35	Fair	Fair	Interior	KWB	Yes	Yes	Yes
636		Live Oak	29	Estimated DBH			10	20	Fair to Poor	Poor	Interior, hornets nest	KWB	Yes	Yes	No
186	573	Oracle Oak	30	Actual DBH	3	9,10,11	25	35	Good	Good		Bw	Yes	Yes	No
383	618	Oracle Oak	54	Actual DBH	2	9.5,9.5	15	35	Fair	Fair			Yes	Yes	Yes
390	621	Oracle Oak	12	Actual DBH	2	14.5,4.5	15	25	Good	Good			Yes	Yes	No
576	649	Oracle Oak	32	Actual DBH	2	33.5, 24	20	40	Good	Good		Bw	Yes	Yes	No
2	501	Valley Oak	21	Actual DBH	9	3,4,1,2,2,2,3,3,1	6	15	Fair	Fair to Good		LT	Yes	Yes	No
6	505	Valley Oak	14	Estimated DBH	1		13	20	Good	Fair to Good		LT	Yes	Yes	No
7	506	Valley Oak	17	Estimated DBH	1		12	30	Good	Fair		LT	Yes	Yes	No
10	902	Valley Oak	31.5	Actual DBH	1		23	60	Fair to Poor	Fair to Good		KWB	Yes	Yes	No
14	805	Valley Oak	31.5	Actual DBH	1		30	50	Good	Good		Cbp	Yes	Yes	No
19	906	Valley Oak	24.5	Actual DBH	1		27	40	Fair to Poor	Fair to Good		KWB	Yes	Yes	No
85	523	Valley Oak	8	Actual DBH	2	4,4	8	17	Poor	Fair to Poor		LT	Yes	Yes	No
90	524	Valley Oak	32	Estimated DBH	1		22	15	Poor	Poor	Struck by lightning	LT	Yes	Yes	No
93	526	Valley Oak	38	Estimated DBH	1		25	40	Fair to Poor	Fair to Poor		LT	Yes	Yes	Yes
94	527	Valley Oak	38	Estimated DBH	1		20	35	Poor	Poor		LT	Yes	Yes	Yes
96	528	Valley Oak	35	Estimated DBH	2	30,5	22	30	Fair	Fair to Good		LT	Yes	Yes	No
112	928	Valley Oak	29.5	Actual DBH			30	35	Fair to Good	Fair		KWB	Yes	Yes	No
127	538	Valley Oak	6	Estimated DBH	1		3	14	Good	Good	No tag	LT	Yes	Yes	No
143	939	Valley Oak	20	Estimated DBH			30	50	Fair to Good	Fair		KWB	Yes	Yes	No
145	944	Valley Oak	51	Actual DBH			32	60	Fair to Good	Fair to Poor		KWB	Yes	Yes	Yes
345		Valley Oak	16	Estimated DBH			18	30	Good	Good		KWB	Yes	Yes	No
346		Valley Oak	20	Estimated DBH			15	30	Fair to Good	Fair to Good		KWB	Yes	Yes	No
348		Valley Oak	12	Estimated DBH	1		12	25	Fair to Good	Fair to Good		KWB	Yes	Yes	No
349		Valley Oak	12	Estimated DBH	1		16	30	Fair to Good	Fair to Good		KWB	Yes	Yes	No
421	633	Valley Oak	20	Actual DBH		20		35	Fair to Good	Good			Yes	Yes	No
432	1511	Valley Oak	28	Actual DBH	1		35	50	Fair to Good	Fair		KWB + AY	Yes	Yes	No

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437	1515	Valley Oak	20.5	Actual DBH	1		35	60	Fair to Good	Fair to Good		KWB + AY	Yes	Yes	No
438	1516	Valley Oak	45	Actual DBH	1		40	60	Fair to Good	Fair to Good		KWB + AY	Yes	Yes	Yes
449	1525	Valley Oak	29	Actual DBH	1		30	55	Fair	Fair to Poor		KWB + AY	Yes	Yes	No
452	1528	Valley Oak	38	Actual DBH	1		35	55	Fair	Fair to Good		KWB + AY	Yes	Yes	Yes
453	1529	Valley Oak	41.5	Actual DBH	1		35	55	Fair to Good	Fair to Good		KWB + AY	Yes	Yes	Yes
458	1534	Valley Oak	35.5	Actual DBH	1		25	45	Fair to Good	Fair		KWB + AY	Yes	Yes	No
460	1536	Valley Oak	39	Actual DBH	1		30	47	Fair	Fair		KWB + AY	Yes	Yes	Yes
463	1539	Valley Oak	42	Actual DBH	1		30	55	Fair to Good	Fair		KWB + AY	Yes	Yes	Yes
464	1540	Valley Oak	39.5	Actual DBH	1		30	50	Fair to Good	Fair		KWB + AY	Yes	Yes	Yes
475	0	Valley Oak	44	Estimated DBH	1		35	55	Fair to Good	Fair to Good		KWB + AY	Yes	Yes	Yes
496	1549	Valley Oak	21	Actual DBH			35	40	Fair to Good	Fair to Good		KWB	Yes	Yes	No
517	1568	Valley Oak	8	Actual DBH			50	80	Fair	Fair		KWB	Yes	Yes	No
530	1569	Valley Oak	28	Actual DBH			20	35	Fair	Fair		KWB	Yes	Yes	No
536	1574	Valley Oak	10	Actual DBH			12	30	Fair	Fair		KWB	Yes	Yes	No
540		Valley Oak	43	Estimated DBH			20	35	Fair	Fair		KWB	Yes	Yes	Yes
541		Valley Oak	18	Estimated DBH			15	35	Fair	Fair to Poor		KWB	Yes	Yes	No
546	1580	Valley Oak	14	Actual DBH			20	36	Fair to Good	Fair to Good		KWB	Yes	Yes	No
547		Valley Oak	29	Estimated DBH			25	35	Fair to Good	Fair to Good		KWB	Yes	Yes	No
549		Valley Oak	12	Estimated DBH			10	30	Fair to Good	Fair		KWB	Yes	Yes	No
552	1583	Valley Oak	15.5	Actual DBH			15	27	Fair	Fair to Poor		KWB	Yes	Yes	No
554	1584	Valley Oak	10	Actual DBH	2	21.5,33.5	30	45	Fair to Good	Fair		KWB	Yes	Yes	No
555	1585	Valley Oak	55	Actual DBH	2	9,3	10	35	Fair to Good	Fair to Good		KWB	Yes	Yes	Yes
558	1588	Valley Oak	13.5	Actual DBH			12	40	Fair to Good	Fair to Good		KWB	Yes	Yes	No
575	648	Valley Oak	28	Actual DBH			20	40	Good	Fair to Good		Bw	Yes	Yes	No
588	1596	Valley Oak	28	Actual DBH			20	35	Fair to Good	Fair to Good		KWB	Yes	Yes	No
591	1597	Valley Oak	28	Actual DBH			25	33	Poor	Fair		KWB	Yes	Yes	No
593	1599	Valley Oak	27	Estimated DBH			18	37	Fair to Good	Fair to Good		KWB	Yes	Yes	No
596	1600	Valley Oak	28	Actual DBH			15	30	Good	Fair to Good		KWB	Yes	Yes	No
604	1607	Valley Oak	9	Actual DBH			5	15	Fair to Poor	Fair		KWB	Yes	Yes	No
605	1608	Valley Oak	7.5	Actual DBH			10	30	Fair	Fair		KWB	Yes	Yes	No
606	1609	Valley Oak	8.5	Actual DBH			15	35	Fair to Good	Fair to Good		KWB	Yes	Yes	No
607	1610	Valley Oak	14.5	Actual DBH			5	25	Fair to Good	Fair to Good		KWB	Yes	Yes	No
608	1611	Valley Oak	6	Actual DBH			15	35	Fair to Good	Fair to Good		KWB	Yes	Yes	No
610	1613	Valley Oak	20.5	Actual DBH			13	35	Fair to Good	Fair		KWB	Yes	Yes	No
612	1615	Valley Oak	57	Actual DBH	3	15,7,26	25	40	Fair to Good	Fair to Good		KWB	Yes	Yes	Yes
613	1616	Valley Oak	48	Actual DBH			12	45	Good	Fair to Good		KWB	Yes	Yes	Yes
614	1617	Valley Oak	12.5	Actual DBH	2	12.5,7.5	15	45	Fair	Fair		KWB	Yes	Yes	No
615	1618	Valley Oak	20	Actual DBH			5	25	Fair to Poor	Fair		KWB	Yes	Yes	No
622	1625	Valley Oak	11.5	Actual DBH			5	20	Fair to Poor	Poor		KWB	Yes	Yes	No
631		Valley Oak	64	Estimated DBH							VO 14,8,7	KWB	Yes	Yes	Yes
	Woodland Patch C	Live Oak	11	Estimated	2						Riparian Woodland, No location data, All DBH's estimated, only trees that could be seen were counted.	Bw	Yes	No	No
	Woodland Patch C	Live Oak	11	Estimated	2						Riparian Woodland, No location data, All DBH's estimated, only trees that could be seen were counted.	Bw	Yes	No	No
	Woodland Patch C	Live Oak	10	Estimated	2						Riparian Woodland, No location data, All DBH's estimated, only trees that could be seen were counted.	Bw	Yes	No	No
	Woodland Patch C	Live Oak	16	Estimated	3						Riparian Woodland, No location data, All DBH's estimated, only trees that could be seen were counted.	Bw	Yes	No	No
	Woodland Patch C	Live Oak	16	Estimated	2						Riparian Woodland, No location data, All DBH's estimated, only trees that could be seen were counted.	Bw	Yes	No	No

OBJECTID *	Tree #	Species	DBH	DBH_Type	Number of Stems	Stem Description	Dripline	Height (ft.)	Structure	Health	Comment	Staff Name	ORMP_Impact	In GIS Point Data	Heritage Tree
	Woodland Patch C	Live Oak	8	Estimated	1						Riparian Woodland, No location data, All DBH's estimated, only trees that could be seen were counted.	Bw	Yes	No	No
	Woodland Patch C	Live Oak	22	Estimated	2						Riparian Woodland, No location data, All DBH's estimated, only trees that could be seen were counted.	Bw	Yes	No	No
	Woodland Patch C	Live Oak	6	Estimated	1						Riparian Woodland, No location data, All DBH's estimated, only trees that could be seen were counted.	Bw	Yes	No	No
	Woodland Patch C	Live Oak	9	Estimated	1						Riparian Woodland, No location data, All DBH's estimated, only trees that could be seen were counted.	Bw	Yes	No	No
	Woodland Patch C	Live Oak	12	Estimated	1						Riparian Woodland, No location data, All DBH's estimated, only trees that could be seen were counted.	Bw	Yes	No	No
	Woodland Patch C	Live Oak	12	Estimated	1						Riparian Woodland, No location data, All DBH's estimated, only trees that could be seen were counted.	Bw	Yes	No	No
	Woodland Patch C	Live Oak	35	Estimated	3						Riparian Woodland, No location data, All DBH's estimated, only trees that could be seen were counted.	Bw	Yes	No	No
	Woodland Patch C	Live Oak	11	Estimated	3						Riparian Woodland, No location data, All DBH's estimated, only trees that could be seen were counted.	Bw	Yes	No	No
	Woodland Patch C	Live Oak	17	Estimated	1						Riparian Woodland, No location data, All DBH's estimated, only trees that could be seen were counted.	Bw	Yes	No	No
	Woodland Patch C	Live Oak	12	Estimated	3						Riparian Woodland, No location data, All DBH's estimated, only trees that could be seen were counted.	Bw	Yes	No	No
	Woodland Patch C	Live Oak	6	Estimated	1						Riparian Woodland, No location data, All DBH's estimated, only trees that could be seen were counted.	Bw	Yes	No	No
	Woodland Patch A	Live Oak	55	Estimated	5						Woodland Patch within Chaparral, species identified, and DBH estimated and summed for each tree, no spatial data	Bw	Yes	No	Yes
	Woodland Patch A	Live Oak	59	Estimated	5						Woodland Patch within Chaparral, species identified, and DBH estimated and summed for each tree, no spatial data	Bw	Yes	No	Yes
	Woodland Patch A	Live Oak	104	Estimated	13						Woodland Patch within Chaparral, species identified, and DBH estimated and summed for each tree, no spatial data	Bw	Yes	No	Yes
	Woodland Patch A	Live Oak	16	Estimated	1						Woodland Patch within Chaparral, species identified, and DBH estimated and summed for each tree, no spatial data	Bw	Yes	No	No
	Woodland Patch A	Live Oak	40	Estimated	3						Woodland Patch within Chaparral, species identified, and DBH estimated and summed for each tree, no spatial data	Bw	Yes	No	Yes
	Woodland Patch A	Live Oak	82	Estimated	8						Woodland Patch within Chaparral, species identified, and DBH estimated and summed for each tree, no spatial data	Bw	Yes	No	Yes
	Woodland Patch A	Live Oak	41	Estimated	5						Woodland Patch within Chaparral, species identified, and DBH estimated and summed for each tree, no spatial data	Bw	Yes	No	Yes
	Woodland Patch A	Live Oak	32	Estimated	3						Woodland Patch within Chaparral, species identified, and DBH estimated and summed for each tree, no spatial data	Bw	Yes	No	No
	Woodland Patch A	Live Oak	55	Estimated	11						Woodland Patch within Chaparral, species identified, and DBH estimated and summed for each tree, no spatial data	Bw	Yes	No	Yes
	Woodland Patch A	Live Oak	10	Estimated	2						Woodland Patch within Chaparral, species identified, and DBH estimated and summed for each tree, no spatial data	Bw	Yes	No	No
	Woodland Area 1	Live Oak	32	Estimated	4						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 1	Live Oak	16	Estimated	2						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No

OBJECTID *	Tree #	Species	DBH	DBH_Type	Number of Stems	Stem Description	Dripline	Height (ft.)	Structure	Health	Comment	Staff Name	ORMP_Impact	In GIS Point Data	Heritage Tree
	Woodland Area 1	Live Oak	8	Estimated	1						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 1	Live Oak	72	Estimated	9						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	Yes
	Woodland Area 1	Live Oak	32	Estimated	4						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 1	Live Oak	40	Estimated	5						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	Yes
	Woodland Area 1	Live Oak	40	Estimated	5						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	Yes
	Woodland Area 1	Live Oak	8	Estimated	1						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 1	Live Oak	32	Estimated	4						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 1	Live Oak	16	Estimated	2						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 1	Live Oak	8	Estimated	1						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 2	Live Oak	30	Estimated	3						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 2	Live Oak	60	Estimated	6						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	Yes
	Woodland Area 2	Live Oak	10	Estimated	1						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No

OBJECTID *	Tree #	Species	DBH	DBH_Type	Number of Stems	Stem Description	Dripline	Height (ft.)	Structure	Health	Comment	Staff Name	ORMP_Impact	In GIS Point Data	Heritage Tree
	Woodland Area 2	Live Oak	20	Estimated	2						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 2	Live Oak	70	Estimated	7						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	Yes
	Woodland Area 2	Live Oak	20	Estimated	2						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 2	Live Oak	10	Estimated	1						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 2	Live Oak	30	Estimated	3						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 2	Live Oak	30	Estimated	3						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 2	Live Oak	50	Estimated	5						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	Yes
	Woodland Area 2	Live Oak	10	Estimated	1						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 2	Live Oak	20	Estimated	2						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 2	Live Oak	70	Estimated	7						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	Yes
	Woodland Area 2	Live Oak	20	Estimated	2						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 2	Live Oak	40	Estimated	4						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	Yes

OBJECTID *	Tree #	Species	DBH	DBH_Type	Number of Stems	Stem Description	Dripline	Height (ft.)	Structure	Health	Comment	Staff Name	ORMP_Impact	In GIS Point Data	Heritage Tree
	Woodland Area 2	Live Oak	10	Estimated	1						Canyon Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 2	Live Oak	20	Estimated	1						Interior Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 2	Live Oak	20	Estimated	2						Interior Live Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 2	Blue Oak	9	Estimated	1						Blue Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Area 2	Blue Oak	9	Estimated	1						Blue Oak, Woodland Patch within Chaparral, species identified and tallied, but DBH's are the number of stems multiplied by the average dbh of ALL stems within the patch	Bw	Yes	No	No
	Woodland Patch B	Valley Oak	30	Estimated	1						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Patch B	Live Oak	62	Estimated	11						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	Yes
	Woodland Point	Live Oak	63	Estimated	5						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	Yes
	Woodland Point	Live Oak	22	Estimated	2						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Live Oak	21.5	Estimated	4						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Live Oak	70	Estimated	8						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	Yes
	Woodland Point	Live Oak	30	Estimated	4						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Live Oak	13	Estimated	2						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Live Oak	12	Estimated	2						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Live Oak	14	Estimated	1						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Live Oak	37	Estimated	4						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	Yes
	Woodland Point	Valley Oak	15	Estimated	3						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Live Oak	12	Estimated	2						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Live Oak	30	Estimated	3						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Blue Oak	9	Estimated	1						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Live Oak	55	Estimated	3						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	Yes
	Woodland Point	Live Oak	15	Estimated	1						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Live Oak	40	Estimated	2						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	Yes
	Woodland Point	Live Oak	28	Estimated	3						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Live Oak	37	Estimated	10						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	Yes
	Woodland Point	Live Oak	31	Estimated	22						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Blue Oak	8	Estimated	1						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Live Oak	80	Estimated	4						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	Yes
	Woodland Point	Live Oak	13	Estimated	2						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Blue Oak	15	Estimated	1						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Blue Oak	14	Estimated	1						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Live Oak	8	Estimated	1						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Blue Oak	16	Estimated	1						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Live Oak	19	Estimated	2						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Valley Oak	10	Estimated	1						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
	Woodland Point	Live Oak	8	Estimated	1						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No

OBJECTID *	Tree #	Species	DBH	DBH_Type	Number of Stems	Stem Description	Dripline	Height (ft.)	Structure	Health	Comment	Staff Name	ORMP_Impact	In GIS Point Data	Heritage Tree
	Woodland Point	Valley Oak	16	Estimated	1						Riparian Woodland, all DBH's estimated individually	Bw	Yes	No	No
632	Woodland Point	Valley Oak	14	Estimated DBH								KWB	Yes	No	No
632	Woodland Point	Valley Oak	8	Estimated DBH								KWB	Yes	No	No
632	Woodland Point	Valley Oak	7	Estimated DBH								KWB	Yes	No	No
633	Woodland Point	Interior Live Oak	50	Estimated DBH								KWB	Yes	No	Yes
633	Woodland Point	Interior Live Oak	15	Estimated DBH								KWB	Yes	No	No
633	Woodland Point	Interior Live Oak	33	Estimated DBH								KWB	Yes	No	No
633	Woodland Point	Interior Live Oak	18	Estimated DBH								KWB	Yes	No	No
633	Woodland Point	Interior Live Oak	115	Estimated DBH								KWB	Yes	No	Yes
633	Woodland Point	Interior Live Oak	8	Estimated DBH								KWB	Yes	No	No
635	Woodland Point	Interior Live Oak	16	Estimated DBH								KWB	Yes	No	No
635	Woodland Point	Interior Live Oak	16	Estimated DBH								KWB	Yes	No	No
635	Woodland Point	Interior Live Oak	25	Estimated DBH								KWB	Yes	No	No
635	Woodland Point	Interior Live Oak	49	Estimated DBH								KWB	Yes	No	Yes
635	Woodland Point	Interior Live Oak	16	Estimated DBH								KWB	Yes	No	No
635	Woodland Point	Interior Live Oak	28	Estimated DBH								KWB	Yes	No	No
635	Woodland Point	Interior Live Oak	12	Estimated DBH								KWB	Yes	No	No
635	Woodland Point	Valley Oak	8	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Valley Oak	16	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Valley Oak	10	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Valley Oak	10	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Valley Oak	10	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Valley Oak	14	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Valley Oak	6	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Valley Oak	14	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Valley Oak	16	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Valley Oak	14	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Valley Oak	16	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Valley Oak	10	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Valley Oak	20	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Valley Oak	24	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Valley Oak	26	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Valley Oak	30	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Valley Oak	15	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Black Oak	21	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Interior Live Oak	58	Estimated DBH								KWB	Yes	No	Yes
636	Woodland Point	Interior Live Oak	66	Estimated DBH								KWB	Yes	No	Yes
636	Woodland Point	Interior Live Oak	25	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Interior Live Oak	8	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Interior Live Oak	22	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Interior Live Oak	48	Estimated DBH								KWB	Yes	No	Yes
636	Woodland Point	Interior Live Oak	22	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Interior Live Oak	16	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Interior Live Oak	12	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Interior Live Oak	27	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Interior Live Oak	24	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Interior Live Oak	26	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Interior Live Oak	12	Estimated DBH								KWB	Yes	No	No
636	Woodland Point	Interior Live Oak	46	Estimated DBH								KWB	Yes	No	Yes
636	Woodland Point	Interior Live Oak	23	Estimated DBH								KWB	Yes	No	No
426	Wood1	Interior Live Oak	56	Estimated DBH								KWB	Yes	No	Yes
426	Wood1	Blue Oak	7	Estimated DBH								KWB	Yes	No	No
426	Wood1	Blue Oak	18	Estimated DBH								KWB	Yes	No	No

OBJECTID *	Tree #	Species	DBH	DBH_Type	Number of Stems	Stem Description	Dripline	Height (ft.)	Structure	Health	Comment	Staff Name	ORMP_Impact	In GIS Point Data	Heritage Tree
426	Wood1	Blue Oak	24	Estimated DBH								KWB	Yes	No	No
426	Wood1	Valley Oak	14	Estimated DBH								KWB	Yes	No	No
426	Wood1	Valley Oak	18	Estimated DBH								KWB	Yes	No	No
427	Wood2	Blue Oak	14	Estimated DBH								KWB	Yes	No	No
427	Wood2	Blue Oak	14	Estimated DBH								KWB	Yes	No	No
427	Wood2	Blue Oak	14	Estimated DBH								KWB	Yes	No	No
427	Wood2	Blue Oak	9	Estimated DBH								KWB	Yes	No	No
427	Wood2	Blue Oak	9	Estimated DBH								KWB	Yes	No	No
427	Wood2	Blue Oak	10	Estimated DBH								KWB	Yes	No	No
427	Wood2	Blue Oak	10	Estimated DBH								KWB	Yes	No	No
427	Wood2	Blue Oak	18	Estimated DBH								KWB	Yes	No	No
427	Wood2	Blue Oak	18	Estimated DBH								KWB	Yes	No	No
427	Wood2	Blue Oak	16	Estimated DBH								KWB	Yes	No	No
427	Wood2	Blue Oak	16	Estimated DBH								KWB	Yes	No	No
427	Wood2	Blue Oak	12	Estimated DBH								KWB	Yes	No	No
427	Wood2	Blue Oak	20	Estimated DBH								KWB	Yes	No	No
427	Wood2	Blue Oak	24	Estimated DBH								KWB	Yes	No	No
427	Wood2	Valley Oak	10	Estimated DBH								KWB	Yes	No	No
427	Wood2	Valley Oak	18	Estimated DBH								KWB	Yes	No	No
427	Wood2	Valley Oak	24	Estimated DBH								KWB	Yes	No	No
427	Wood2	Valley Oak	28	Estimated DBH								KWB	Yes	No	No
430	Wood3	Blue Oak	24	Estimated DBH								KWB	Yes	No	No
430	Wood3	Blue Oak	24	Estimated DBH								KWB	Yes	No	No
430	Wood3	Blue Oak	24	Estimated DBH								KWB	Yes	No	No
430	Wood3	Blue Oak	26	Estimated DBH								KWB	Yes	No	No
430	Wood3	Blue Oak	16	Estimated DBH								KWB	Yes	No	No
430	Wood3	Blue Oak	26	Estimated DBH								KWB	Yes	No	No
430	Wood3	Blue Oak	16	Estimated DBH								KWB	Yes	No	No
430	Wood3	Blue Oak	16	Estimated DBH								KWB	Yes	No	No
430	Wood3	Blue Oak	16	Estimated DBH								KWB	Yes	No	No
430	Wood3	Blue Oak	8	Estimated DBH								KWB	Yes	No	No
430	Wood3	Blue Oak	12	Estimated DBH								KWB	Yes	No	No
430	Wood3	Blue Oak	10	Estimated DBH								KWB	Yes	No	No
430	Wood3	Blue Oak	10	Estimated DBH								KWB	Yes	No	No
430	Wood3	Valley Oak	24	Estimated DBH								KWB	Yes	No	No
430	Wood3	Interior Live Oak	9	Estimated DBH								KWB	Yes	No	No
430	Wood3	Interior Live Oak	24	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	14	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	14	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	14	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	14	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	14	Estimated DBH								KWB	Yes	No	No
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431	Wood4	Blue Oak	14	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	14	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	14	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	12	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	12	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	12	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	12	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	12	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	12	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	12	Estimated DBH								KWB	Yes	No	No

OBJECTID *	Tree #	Species	DBH	DBH_Type	Number of Stems	Stem Description	Dripline	Height (ft.)	Structure	Health	Comment	Staff Name	ORMP_Impact	In GIS Point Data	Heritage Tree
431	Wood4	Blue Oak	18	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	18	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	30	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	8	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	8	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	8	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	8	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	8	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	8	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	16	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	16	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	16	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	16	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	16	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	16	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	24	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	24	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	6	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	6	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	10	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	10	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	20	Estimated DBH								KWB	Yes	No	No
431	Wood4	Blue Oak	38	Estimated DBH								KWB	Yes	No	Yes
431	Wood4	Blue Oak	38	Estimated DBH								KWB	Yes	No	Yes
431	Wood4	Interior Live Oak	16	Estimated DBH								KWB	Yes	No	No
431	Wood4	Interior Live Oak	14	Estimated DBH								KWB	Yes	No	No
431	Wood4	Interior Live Oak	16	Estimated DBH								KWB	Yes	No	No
431	Wood4	Interior Live Oak	14	Estimated DBH								KWB	Yes	No	No
431	Wood4	Interior Live Oak	10	Estimated DBH								KWB	Yes	No	No
431	Wood4	Interior Live Oak	30	Estimated DBH								KWB	Yes	No	No
431	Wood4	Interior Live Oak	34	Estimated DBH								KWB	Yes	No	No
431	Wood4	Valley Oak	24	Estimated DBH								KWB	Yes	No	No
431	Wood4	Valley Oak	24	Estimated DBH								KWB	Yes	No	No
431	Wood4	Valley Oak	24	Estimated DBH								KWB	Yes	No	No
431	Wood4	Valley Oak	20	Estimated DBH								KWB	Yes	No	No
431	Wood4	Valley Oak	20	Estimated DBH								KWB	Yes	No	No
431	Wood4	Valley Oak	30	Estimated DBH								KWB	Yes	No	No
431	Wood4	Valley Oak	30	Estimated DBH								KWB	Yes	No	No
431	Wood4	Valley Oak	16	Estimated DBH								KWB	Yes	No	No
431	Wood4	Valley Oak	10	Estimated DBH								KWB	Yes	No	No
431	Wood4	Valley Oak	36	Estimated DBH								KWB	Yes	No	Yes
432	Wood5	Valley Oak	22	Estimated DBH								KWB	Yes	No	No
432	Wood5	Blue Oak	20	Estimated DBH								KWB	Yes	No	No
432	Wood5	Blue Oak	28	Estimated DBH								KWB	Yes	No	No

Appendix G

Native American Consultation Documentation

DEVELOPMENT SERVICES DEPARTMENT

COUNTY OF EL DORADO **http://www.edcgov.us/devservices**

PLACERVILLE OFFICE:
2850 FAIRLANE COURT PLACERVILLE, CA 95667
BUILDING (530) 621-5315 / (530) 622-1708 FAX
bldgdept@edcgov.us
PLANNING (530) 621-5355 / (530) 642-0508 FAX
planning@edcgov.us

LAKE TAHOE OFFICE:
3368 LAKE TAHOE BLVD. SUITE 302
SOUTH LAKE TAHOE, CA 96150
(530) 573-3330
(530) 542-9082 FAX
tahoebuild@edcgov.us

December 6, 2012

Debbie Pilas-Treadway
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814

Re: Sacred Lands Search and contacts for the Lime Rock Valley, Central El Dorado Hills, Village of Marble Valley Specific Plans
File Nos. SP12-0001, SP12-0002, and SP12-0003

Dear Ms. Pilas-Treadway:

I am requesting a sacred lands search to identify the presence of any Native American cultural resources within the project area of each of the proposed specific plans in El Dorado County. I am also requesting a list of Native American contacts for the project area in order to request consultation in compliance with Senate Bill SB18. In the coming months, the County will be initiating the EIR process for these projects. For your reference and review, attached are each of specific plan area exhibits and maps depicting the quadrant identification and township and range (Exhibits A-D).

Your assistance and prompt feedback would be invaluable to this process. Should you have any questions, I can be reached directly at 530-621-5363 or via email at Rommel.Pabalinas@edcgov.us.

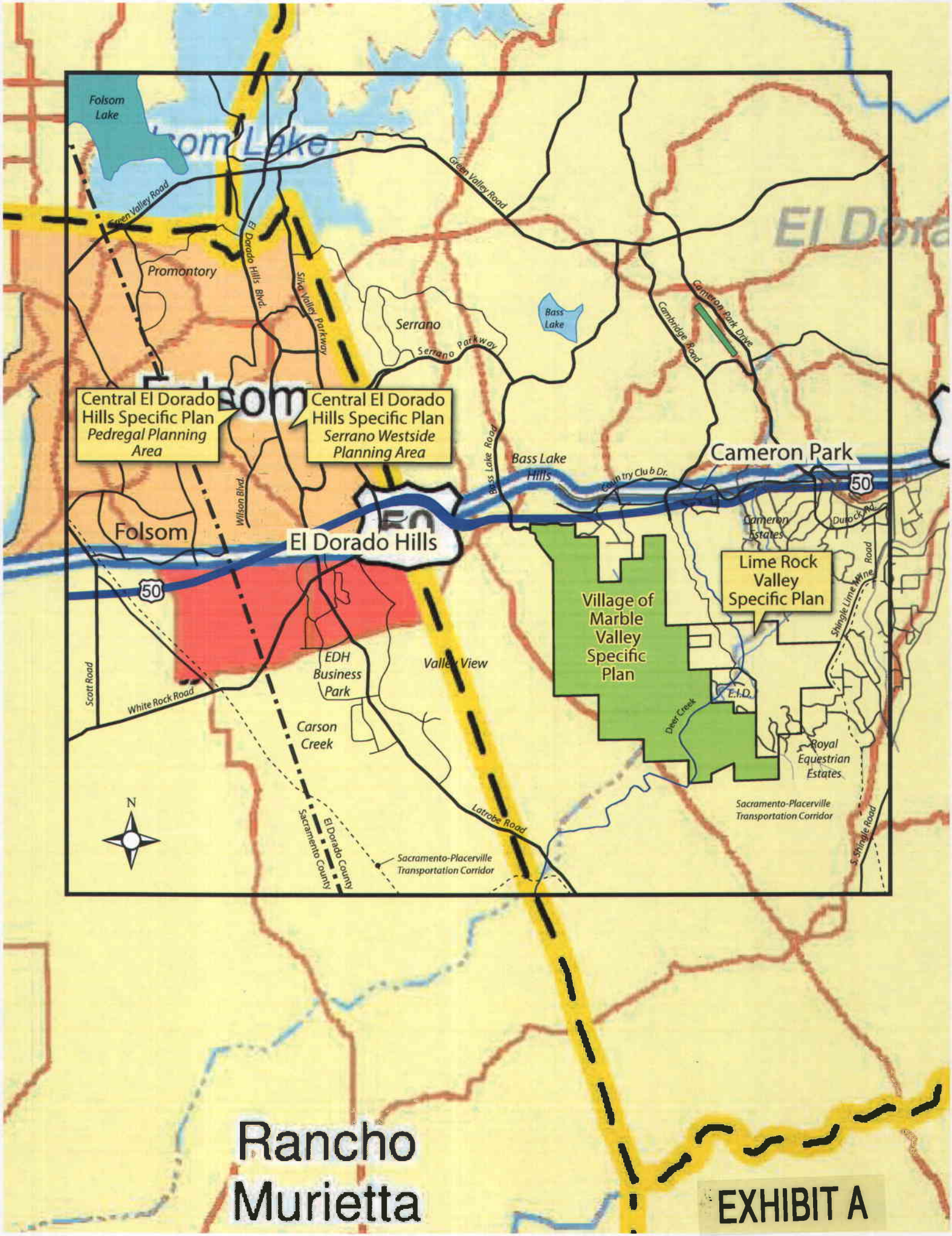
Cordially,

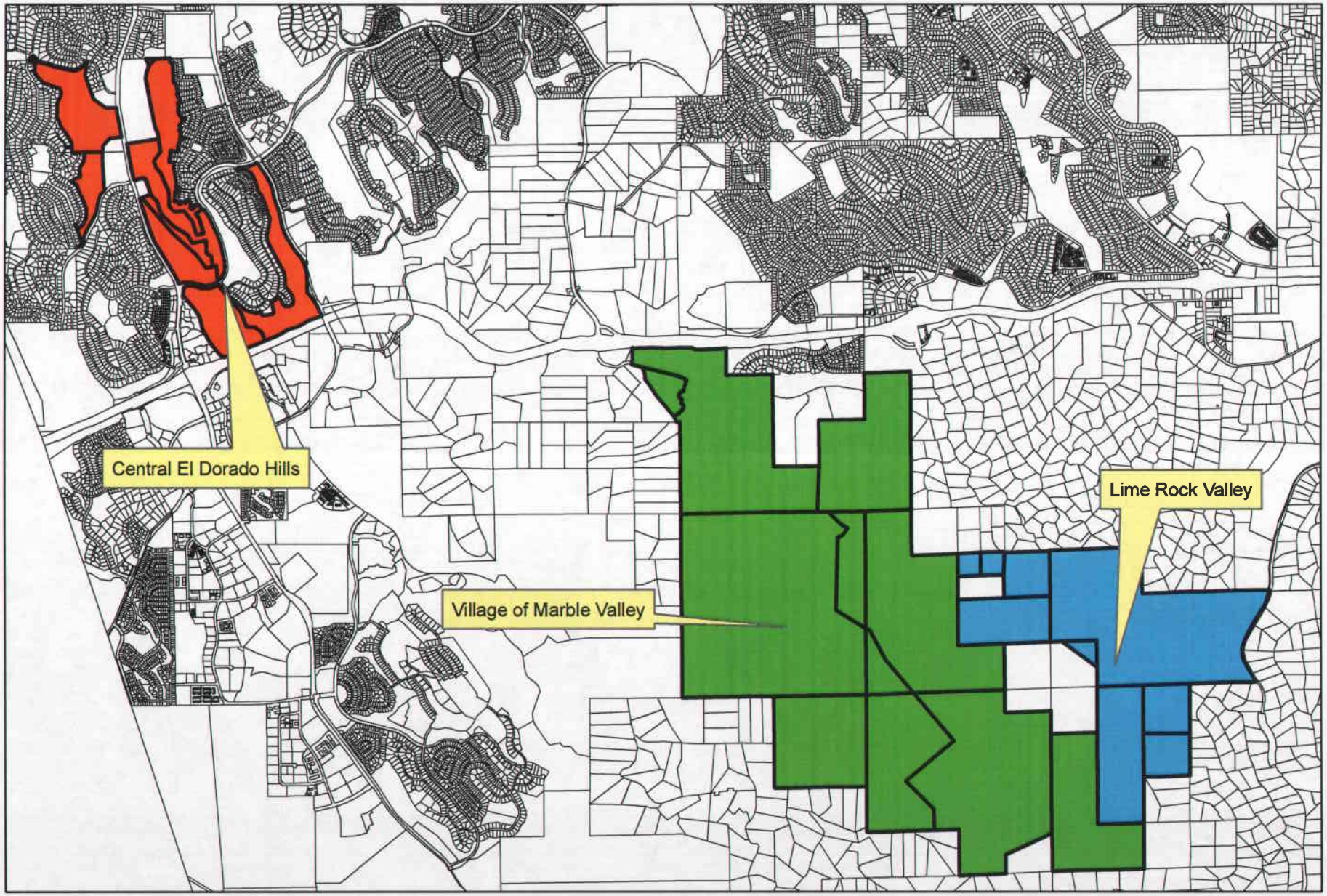
Mel Pabalinas, Senior Planner

Exhibits:

A. Composite Map of Lime Rock Valley, Central El Dorado Hills, Village of Marble Valley Specific Plans
B. Specific Plan- Project Parcels
C. Quadrant, Township, and Range Maps
D. Specific Plan Exhibits

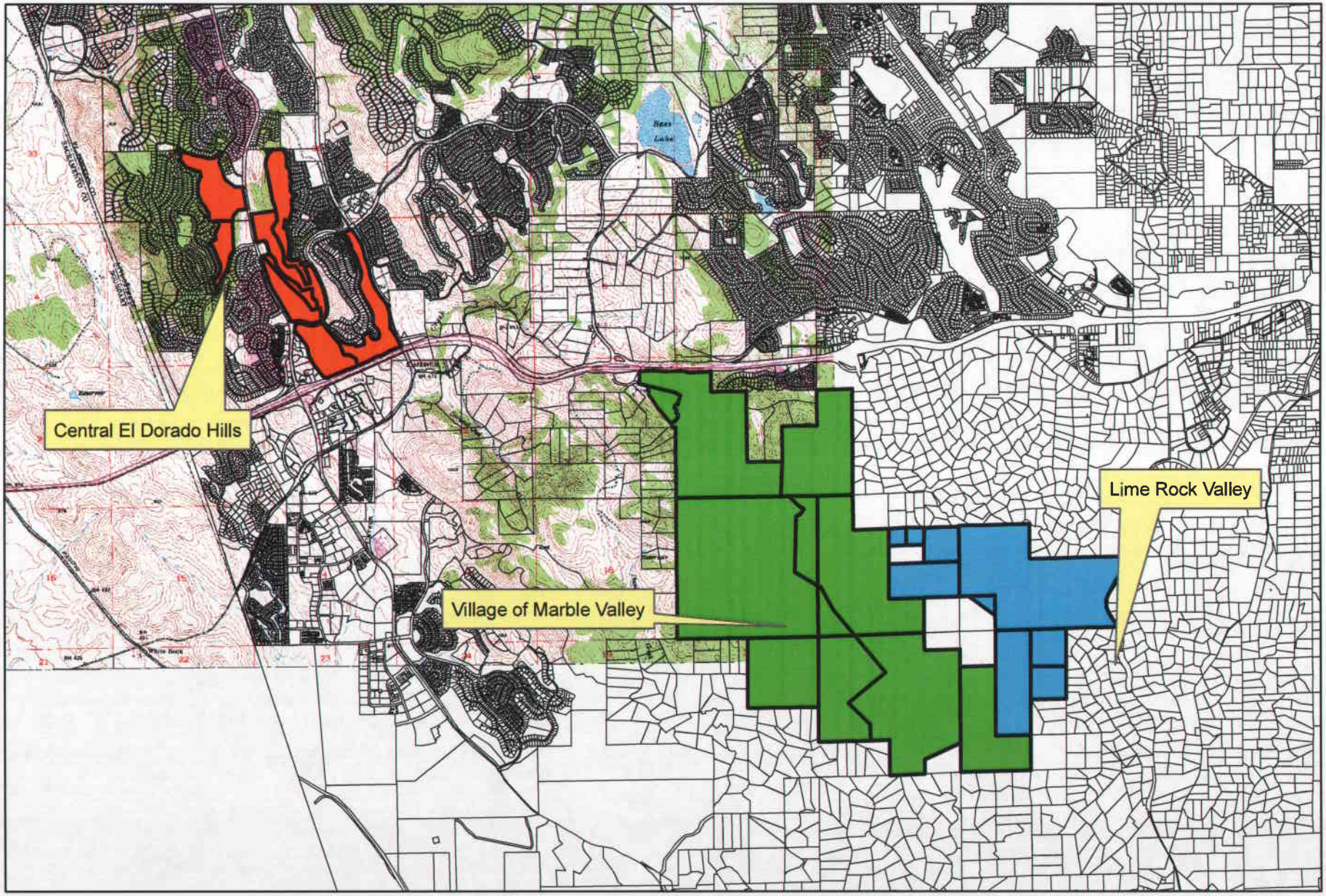
Cc. Project Files


Folsom Lake
Green Valley Road
El Dorado Hills Blvd.
Promontory
Silva Valley Parkway
Serrano
Serrano Parkway
Bass Lake
Cambridge Road
Cameron Park Drive
Central El Dorado Hills Specific Plan
Pedregal Planning Area
Central El Dorado Hills Specific Plan
Serrano Westside Planning Area
Bass Lake Road
Bass Lake Hills
Country Club Dr.
Cameron Park
50
Cameron Estates
Durock Rd.
Folsom
El Dorado Hills
Wilson Blvd.
Lime Rock Valley Specific Plan
Shingle Lime Wine Road
Village of Marble Valley Specific Plan
EDH Business Park
Valley View
Scott Road
White Rock Road
Carson Creek
E.I.D.
Deer Creek
Royal Equestrian Estates
Sacramento-Placerville Transportation Corridor
N
Latrobe Road
El Dorado County
Sacramento County
Sacramento-Placerville Transportation Corridor
S. Shingle Road
Rancho Murietta
EXHIBIT A



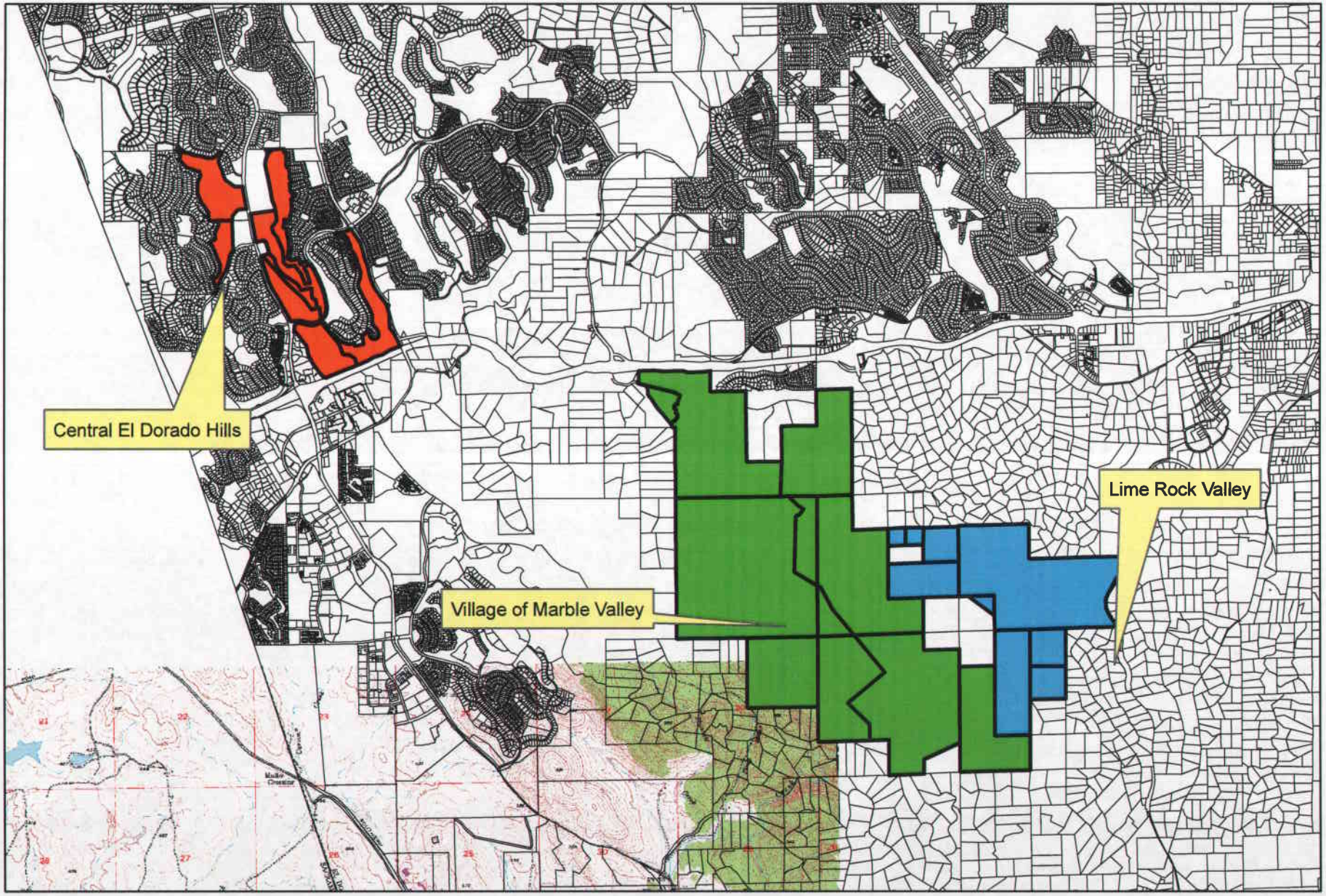
Central El Dorado Hills, Village of Marble Valley and Lime Rock Valley Specific Plans

EXHIBIT B

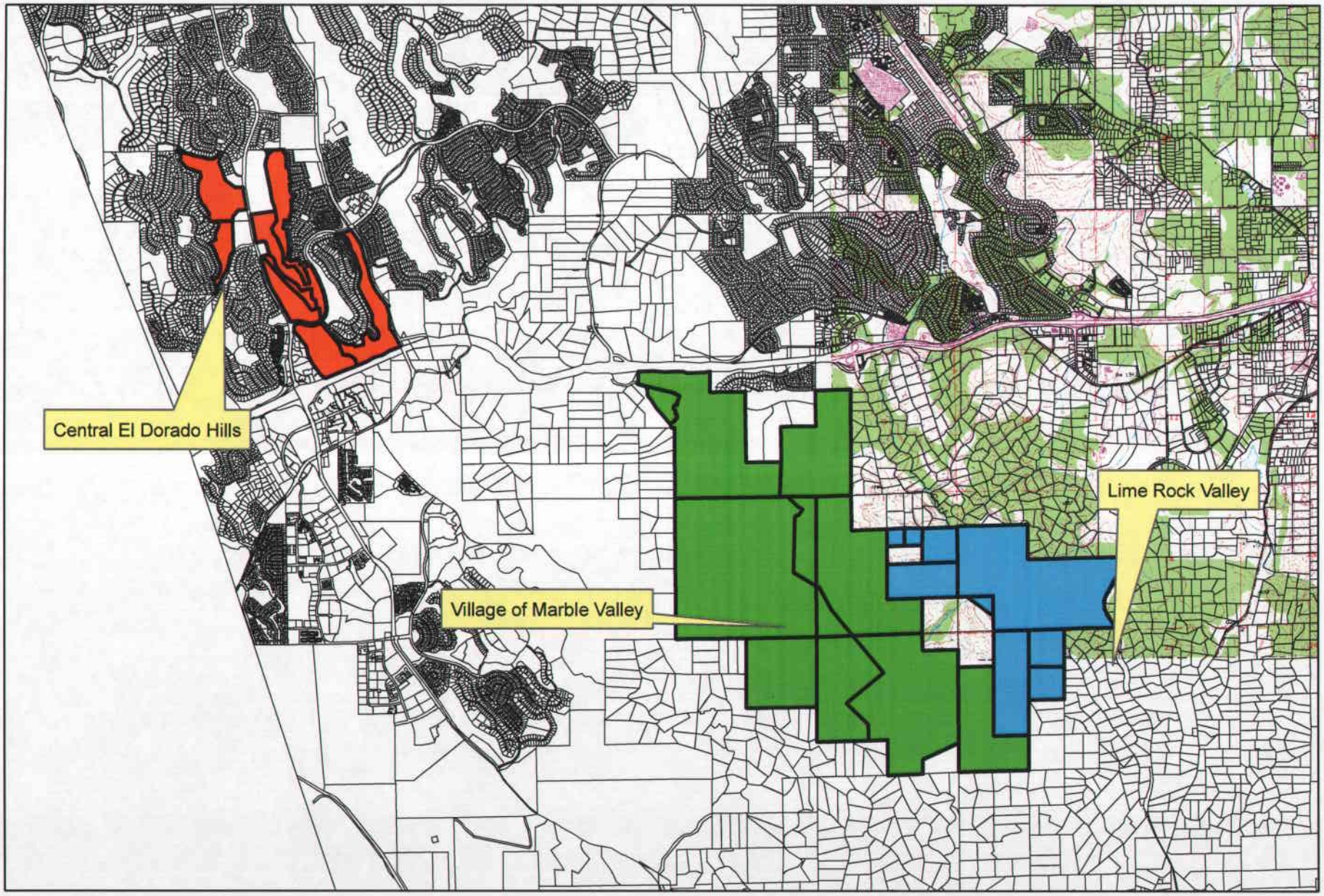


Central El Dorado Hills, Village of Marble Valley and Lime Rock Valley Specific Plans (Clarksville Quadrant)

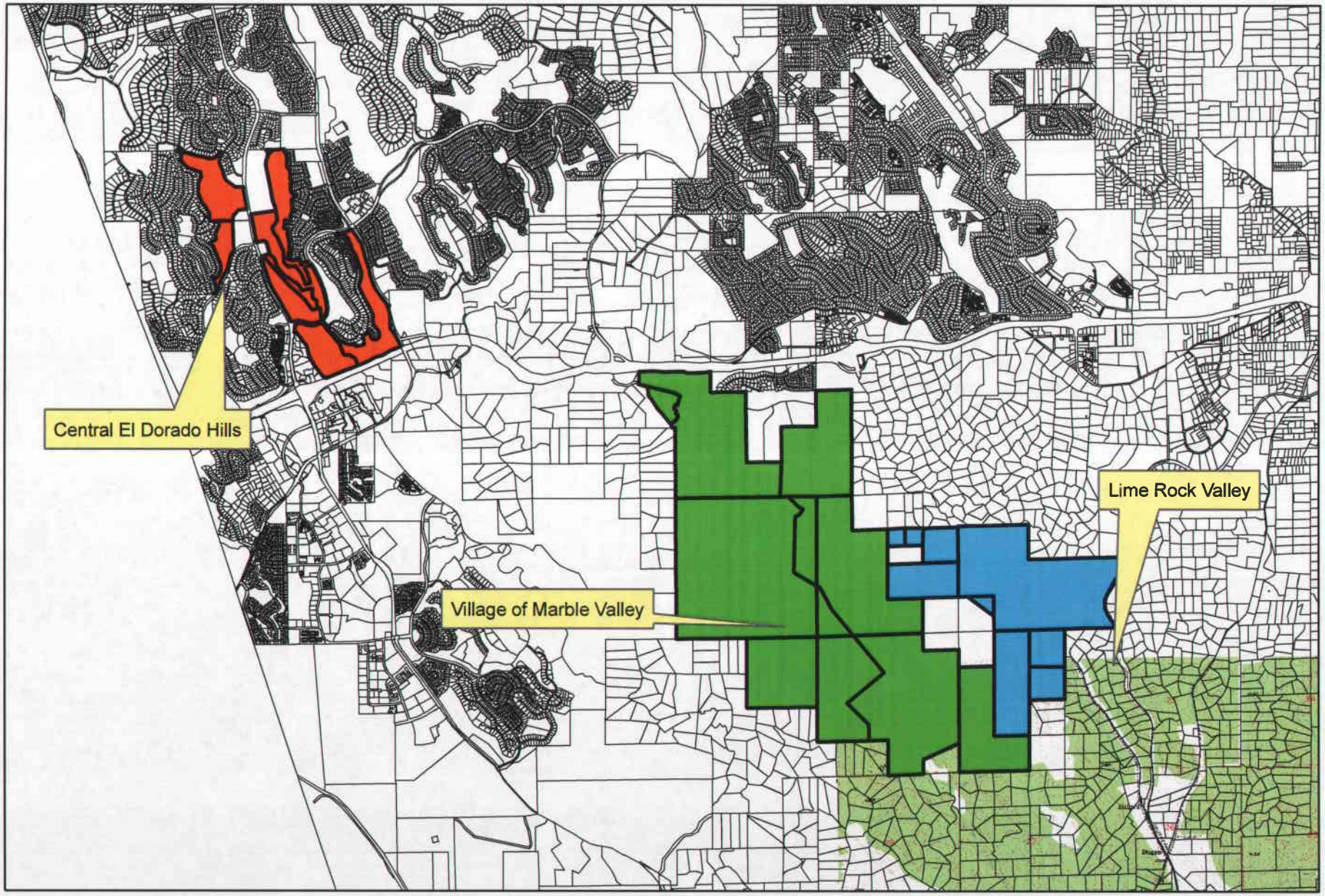
EXHIBIT C



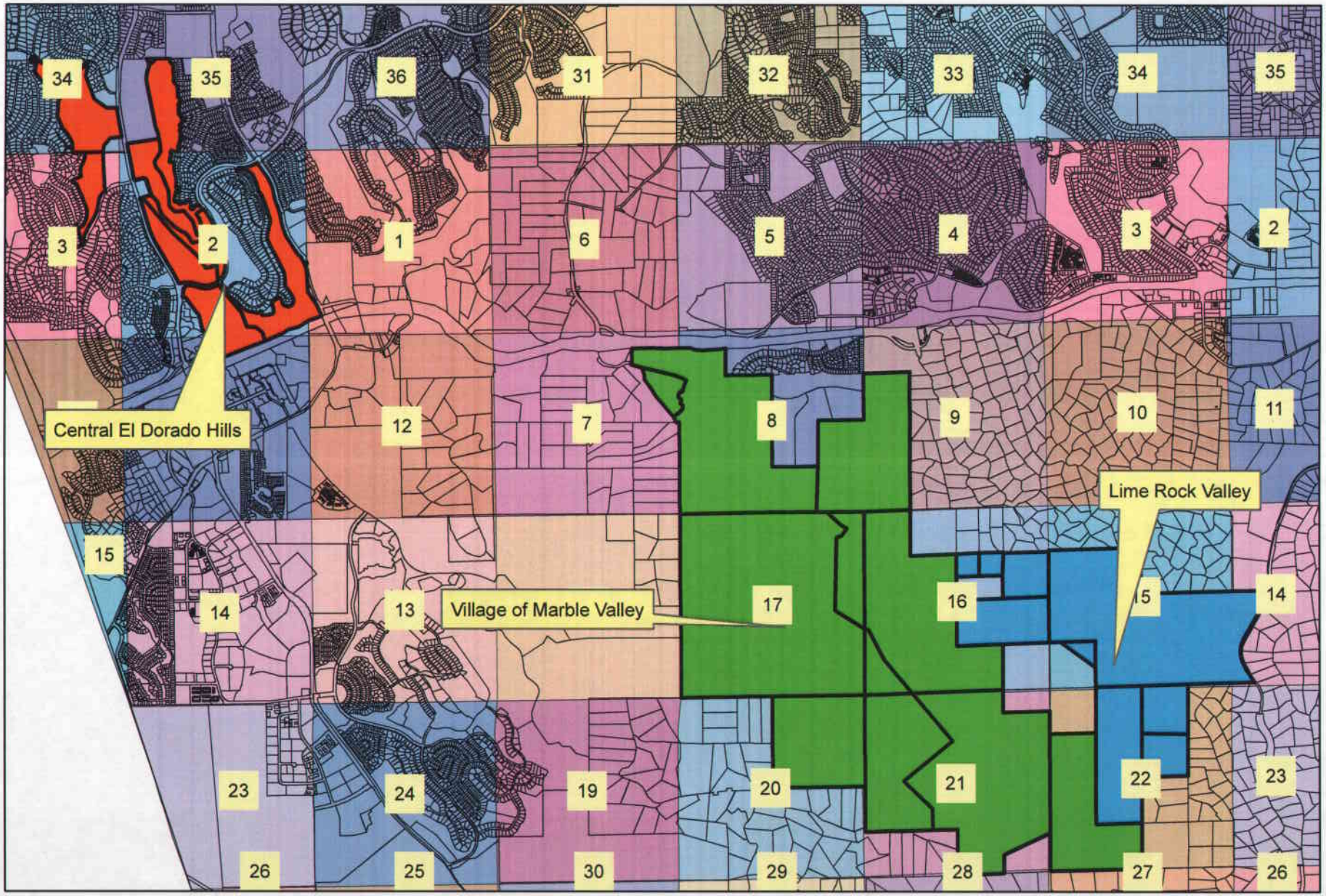
Central El Dorado Hills, Village of Marble Valley and Lime Rock Valley Specific Plans (Folsom SE Quadrant)



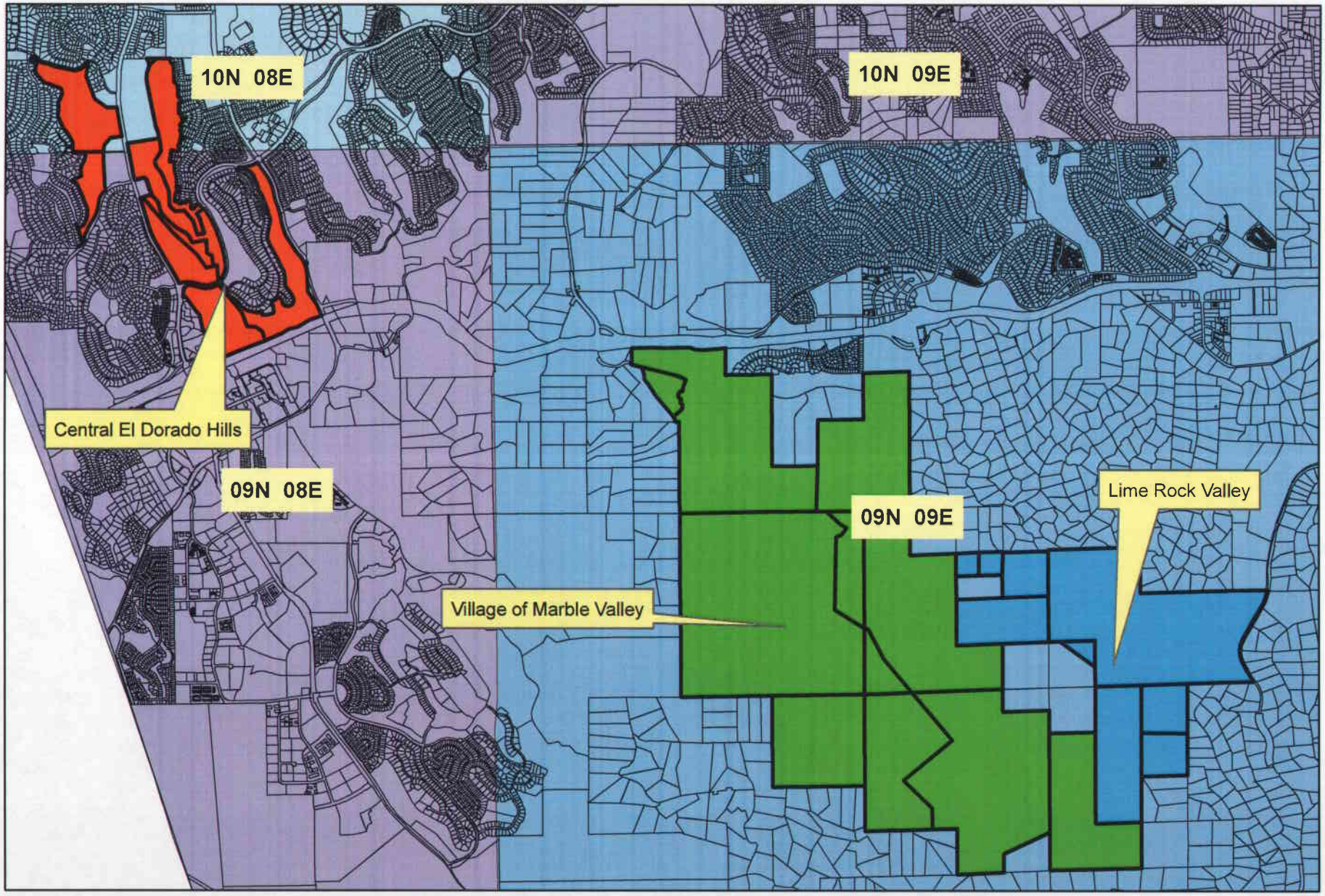
Central El Dorado Hills, Village of Marble Valley and Lime Rock Valley Specific Plans (Shingle Springs Quadrant)



Central El Dorado Hills, Village of Marble Valley and Lime Rock Valley Specific Plans (Latrobe Quadrant)



Central El Dorado Hills, Village of Marble Valley and Lime Rock Valley Specific Plans (Sections)



Central El Dorado Hills, Village of Marble Valley and Lime Rock Valley Specific Plans (Township and Range)

CENTRAL EL DORADO HILLS SPECIFIC PLAN

AERIAL MAP OF PROJECT SITE WITH ADJACENT USES

COUNTY OF EL DORADO, CALIFORNIA

NOVEMBER 2012



0 200' 400' 800'

SCALE IN FEET

925 Sunset Street Suite 200 Folsom, CA 95630
(916) 366-3040 Fax (916) 366-3303
R. E. Y. ENGINEERS, Inc.
Civil Engineers / Land Surveyors

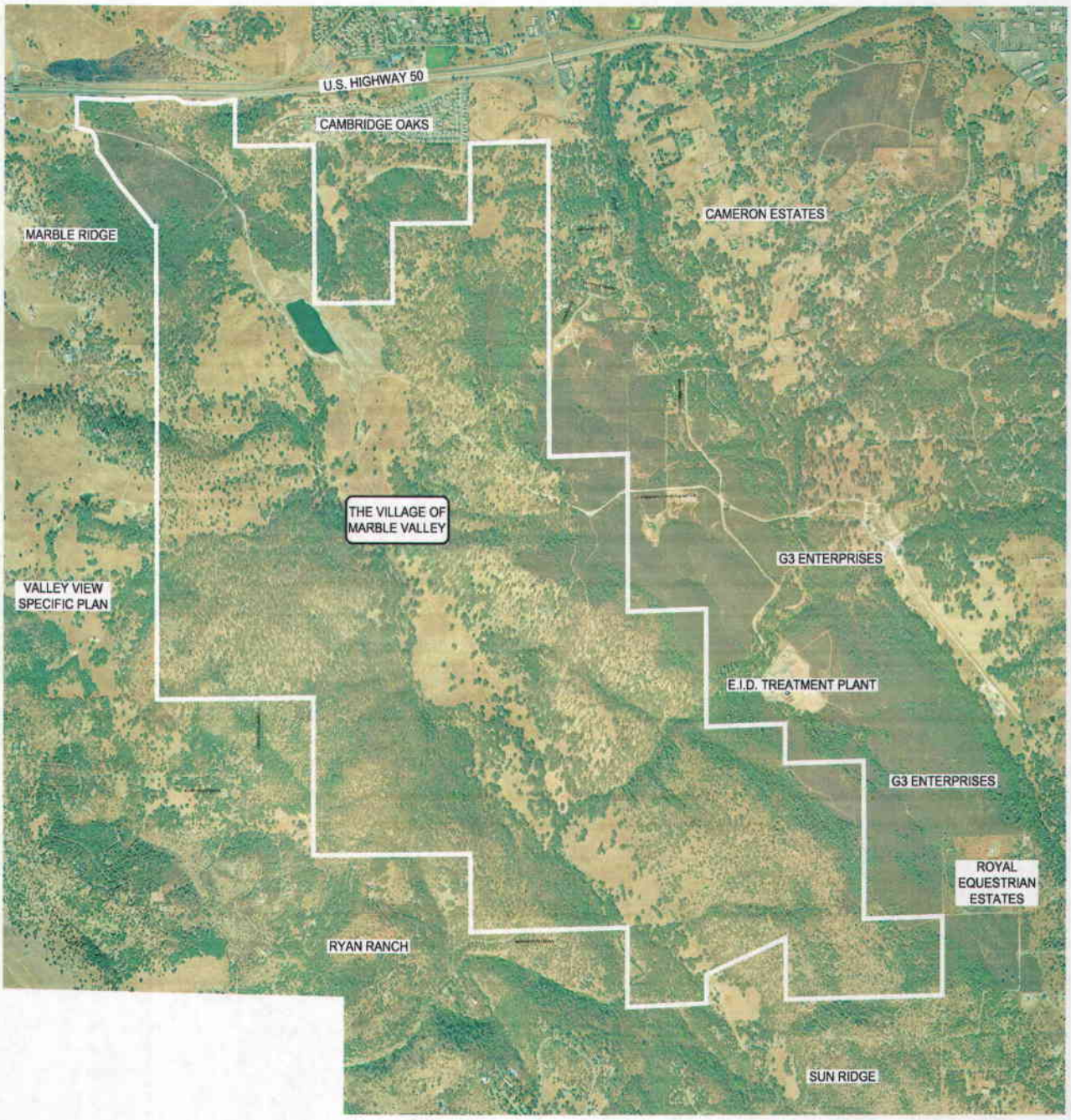
EXHIBIT D

THE VILLAGE OF MARBLE VALLEY SPECIFIC PLAN

AERIAL MAP OF PROJECT SITE WITH ADJACENT USES

COUNTY OF EL DORADO, CALIFORNIA

NOVEMBER 2012



0 400' 800' 1600'

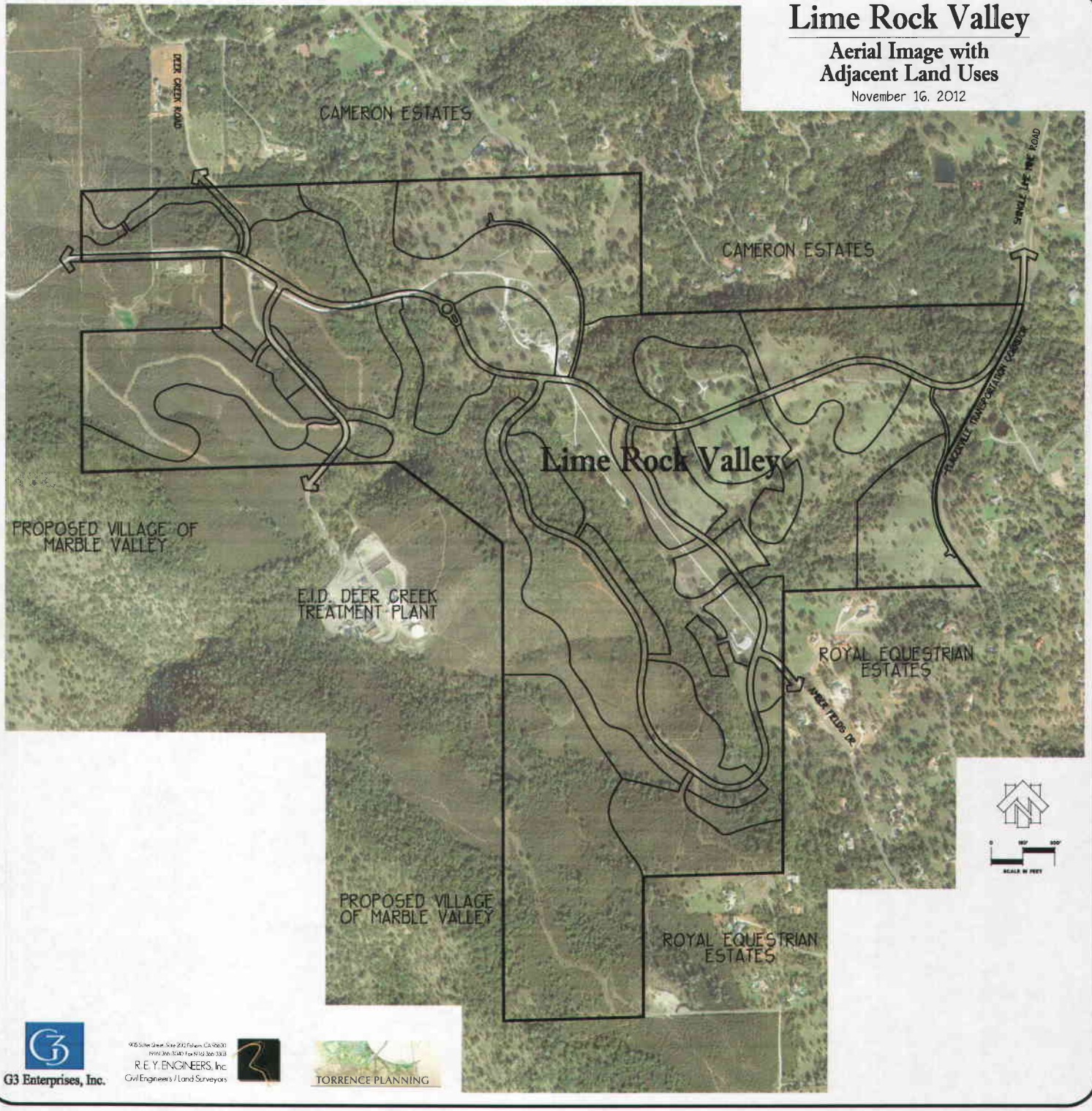
SCALE IN FEET

R.E.Y. ENGINEERS, Inc.
Civil Engineers / Land Surveyors

Lime Rock Valley

Aerial Image with Adjacent Land Uses

November 16, 2012



G3 Enterprises, Inc.

905 Sutter Street, Suite 200 Folsom, CA 95630
(916) 355-1040 Fax (916) 355-1818
R.E.Y. ENGINEERS, Inc.
Civil Engineers / Land Surveyors

TORRENCE PLANNING

Chiu, Bonnie

From: Rommel Pabalinas <rommel.pabalinas@edcgov.us>
Sent: Tuesday, December 11, 2012 3:09 PM
To: nahc@pacbell.net
Cc: Pat Angell; Kent MacDiarmid; Chiu, Bonnie
Subject: Quadrant, Sections, Township for Specific Plans

Dear Ms. Fowler:

Thank you for contacting me. Per your request below are the quadrant, section, township information for the Central El Dorado Hills, Village of Marble Valley, and Lime Rock Valley Specific Plan. The information supplements the correspondence that I sent today and last week. Please let me know should you need any additional information.

Central El Dorado Hills Specific Plan

Quadrant: Clarksville
Sections: 1-3, 11, 34 and 35
Township: 10N 08E and 09N 08E

Village of Marble Valley Specific Plan

Quadrants: Clarksville, Folsom SE, Latrobe and Shingle Springs
Sections: 7-9, 16, 17, 20-22
Township: 09N 09E

Lime Rock Valley Specific Plan

Quadrant: Shingle Springs and Latrobe
Sections: 14-16, 22
Township: 09N 09E

==========

Rommel (Mel) Pabalinas, Senior Planner
El Dorado County Development Services Department
Planning Division
2850 Fairlane Court
Placerville, CA 95667
Main Line 530-621-5355
Direct line 530-621-5363
Fax 530-642-0508

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Any retransmission, dissemination or other use of the information by persons other than the intended recipient or entity is prohibited.
If you receive this e-mail in error please contact the sender by return e-mail and delete the material from your system.
Thank you.

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390

January 15, 2013

Mel Pabalinas, Senior Planner
Development Services Department
County of El Dorado

Sent by Fax: 530-642-0508
Number of Pages: 2

RE: SB 18 Tribal Consultation and Sacred Lands File Check for the Lime Rock Valley, Central El Dorado Hills, Village of Marble Valley Specific Plans, File Nos. SP12-0001, SP12-0002, and SP12-0003; El Dorado County

Dear Mr. Pabalinas:

Government Code §65352.3 requires local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of protecting, and/or mitigating impacts to cultural places. Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above general plan amendment.

As a part of consultation, the NAHC recommends that local governments conduct record searches through the NAHC and California Historic Resources Information System (CHRIS) to determine if any cultural places are located within the area(s) affected by the proposed action. A record search of the Native American Heritage Commission *Sacred Lands File* indicates the potential of Native American cultural resources in the project vicinity that may be impacted. The site is on the *Shingle Springs* USGS quadrangle (Township 9 north, Range 9 east, section 9). The site is known as the *Boychuk Site.* It is also a recorded archaeological site, number CA-ELD-225. For specific information regarding this site, please contact the Singles Springs Rancheria. The tribe's telephone number is on the attached list. Local governments should also be aware that records maintained by the NAHC and CHRIS is not exhaustive. A tribe may be the only source of information regarding the existence of a cultural place.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: rw_nahc@pacbell.net.

Sincerely,

Rob Wood
Associate Government Program Analyst

RECEIVED
PLANNING DEPARTMENT
13 JAN 15 PM 2:11

TRIBAL CONSULTATION LIST
El Dorado County
January 15, 2013

Wilton Rancheria
Andrew Franklin, Chairperson
9300 W. Stockton, Suite Miwok
Elk Grove , CA 95758
916-683-6000

Shingle Springs Band of Miwok Indians
Nicholas Fonseca, Chairperson
P.O. Box 1340 Miwok
Shingle Springs, CA 95682 Maidu
nfonseca@ssband.org
(530) 676-8010

United Auburn Indian Community of the Auburn Rancheria
David Keyser, Chairperson
10720 Indian Hill Road Maidu
Auburn , CA 95603 Miwok
530-883-2390

Nashville-El Dorado Miwok
Cosme Valdez, Interim Chief Executive Officer
PO Box 580986 Miwok
Elk Grove , CA 95758
valdezcom@comcast.net
916-429-8047 voice

Ione Band of Miwok Indians
Yvonne Miller, Chairperson
PO Box 699 Miwok
Plymouth , CA 95669
(209) 274-6753

T'Si-akim Maidu
Grayson Coney, Cultural Director
P.O. Box 1316 Maidu
Colfax , CA 95713
akimmaidu@att.net
(530) 383-7234

Buena Vista Rancheria
Rhonda Morningstar Pope, Chairperson
1418 20th Street, Suite 200 Me-Wuk / Miwok
Sacramento , CA 95811
rhonda@buenavistatribe.com
916 491-0011

T si-Akim Maidu
Eileen Moon,Vice Chairperson
1239 East Main St. Maidu
Grass Valley, CA 95945
530-274-7497

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable only for consultation with Native American tribes under Government Code Section 65352.3. Lime Rock Valley, Central El Dorado Hills, Village of Marble Valley Specific Plans, File NOS. SP12-0001, SP12-0002, and SP12-0003, El Dorado Co.

SHINGLE SPRINGS RANCHERIA

Shingle Springs Band of Miwok Indians,
Shingle Springs Rancheria
(Verona Tract), California
5281 Honpie Road, Placerville, CA 95667

RECEIVED
PLANNING DEPARTMENT
13 FEB 27 PM 12:05

February 26, 2013

El Dorado County
Development Services Department
2850 Fairlane Court
Placerville, CA 95667

Dear Mel Pabalinas

The Most likely Descendant, Daniel Fonseca would like to initiate consultation process with El Dorado County, Development Services Department for the proposed Village of Marble Valley Specific Plan Project that is located in El Dorado County. Among other things, we would like this consultation to address the cultural and historic resource issues, pursuant to the regulations implementing Section 106 of the National Historic Preservation Act.

Prior to meeting we would like to request any and all completed record searches and or surveys that were done in or around the project area up to and including environmental, archaeological and cultural reports.

Please let this letter serve as a formal request for the Shingle Springs Band of Miwok Indians to be added as a consulting party in identifying any Traditional Cultural Properties (TCPs) that may exist within the project's Area of Potential Effects (APE).

Please contact Andrew Godsey, Assistant Cultural Resource Director, (530) 391-7091 agodsey@ssband.org or Angela Rivera, Administrative Assistant at (530) 698-1557 anrivera@ssband.org to schedule a consultation meeting pursuant to Section 106 of the NHPA.

Sincerely,

Daniel Fonseca
Cultural Resources Director
Tribal Historic Preservation Officer (THPO)
Most Likely Descendent (MLD)

Native American Contacts
Marble Valley, 2012-020, El Dorado County

Name	Affiliation	Date Contacted			Response Received?	Comments
		1. Letter	2. Phone	3. Phone		
Native American Heritage Commission 915 Capital Mall, Room 364 Sacramento, CA 95814	N/A	4/30/2012	N/A	N/A	Yes	No sacred lands
Sam Daniels, Vice Chairperson Shingle Springs Band of Miwok Indians P.O. Box 1340 Shingle, CA 95682 (530) 676-8010 (530) 676-8033 Fax	Miwok Maidu	5/7/2012	5/25/2012	5/29/2012	Yes	Left message 5/25 LW spoke with the receptionist on 5/29, who said that they received the letter, and that it has been forwarded to Daniel Fonseca for review, and that if he has any questions or comments, he will contact us.
Nicholas Fonseca, Chairperson Shingle Springs Band of Miwok Indians P.O. Box 1340 Shingle, CA 95682 Nfonseca @ssband.org (530) 676-8010 (530) 676-8033 Fax	Miwok Maidu	5/7/2012	5/25/2012	5/29/2012	Yes	Left message 5/25 LW spoke with the receptionist on 5/29, who said that they received the letter, and that it has been forwarded to Daniel Fonseca for review, and that if he has any questions or comments, he will contact us.
Daniel Fonseca Shingle Springs Band of Miwok Indians P.O. Box 1340 Shingle, CA 95682 (530) 676-8010 (530) 676-8033 Fax	Miwok Maidu	5/7/2012	5/25/2012	5/29/2012	Yes	Left message 5/25 LW spoke with the receptionist on 5/29, who said that they received the letter, and that it has been forwarded to Daniel Fonseca for review, and that if he has any questions or comments, he will contact us. Letter received (dated 5/14/12), asking for copies of all environmental, archaeological, and cultural reports and record searches. The letter also requested that the SSBMI be added as a consulting party in identifying any Traditional Cultural Properties within the Project.
David Keyser, Chairperson United Auburn Indian Community of the Auburn Rancheria 10720 Indian Hill Road Auburn, CA 95603 (530) 883-2390 (530) 883-2380 Fax	Maidu Miwok	5/7/2012	N/A	N/A	Yes	Letter received (dated 5/16/12), asking for copies of reports and a project area visit. Letter was forwarded to USACE with technical report for follow-up consultation.

Marcos Guerrero, Tribal Preservation Committee United Auburn Indian Community of the Auburn Rancheria 10720 Indian Hill Road Auburn, CA 95603 (530) 883-2364 (530) 883-2320 Fax	Maidu Miwok	5/7/2012	N/A	N/A	Yes	Letter received (dated 5/16/12), asking for copies of reports and a project area visit. Letter was forwarded to USACE with technical report for follow-up consultation.
April Wallace Moore 19630 Placer Hills Road Colfax, CA 95713 (530) 637-4279	Nissenan-So Maidu Konkow Washoe	5/7/2012	5/25/2012	5/29/2012	No	Left message 5/25 LW spoke with April on 5/29, and she indicated that she did receive them and would like to take some more time to review them.
Eileen Moon, Vice Chairperson T si-Akim Maidu 1239 East Main Street Grass Valley, CA 95945 (530) 477-0711	Maidu	5/7/2012	5/25/2012	N/A	No	The phone number has been disconnected.

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

30 April 2012

Ms. Debbie Pilas-Treadway
Associate Governmental Program Analyst
Native American Heritage Commission
915 Capital Mall, Room 364
Sacramento, CA 95814

RE: Cultural Resources Identification Effort at Marble Valley, El Dorado County, California, T9N, R9E, Section 8, 9, 16, 17, 20, and 21 (ECORP Project No. 2012-020).

Dear Ms. Pilas-Treadway:

ECORP Consulting, Inc. has been retained to assist in the planning of the development on the project indicated above. As part of the identification effort, we are seeking information from all parties that may have knowledge of or concerns with historic properties or cultural resources in the area of potential effect.

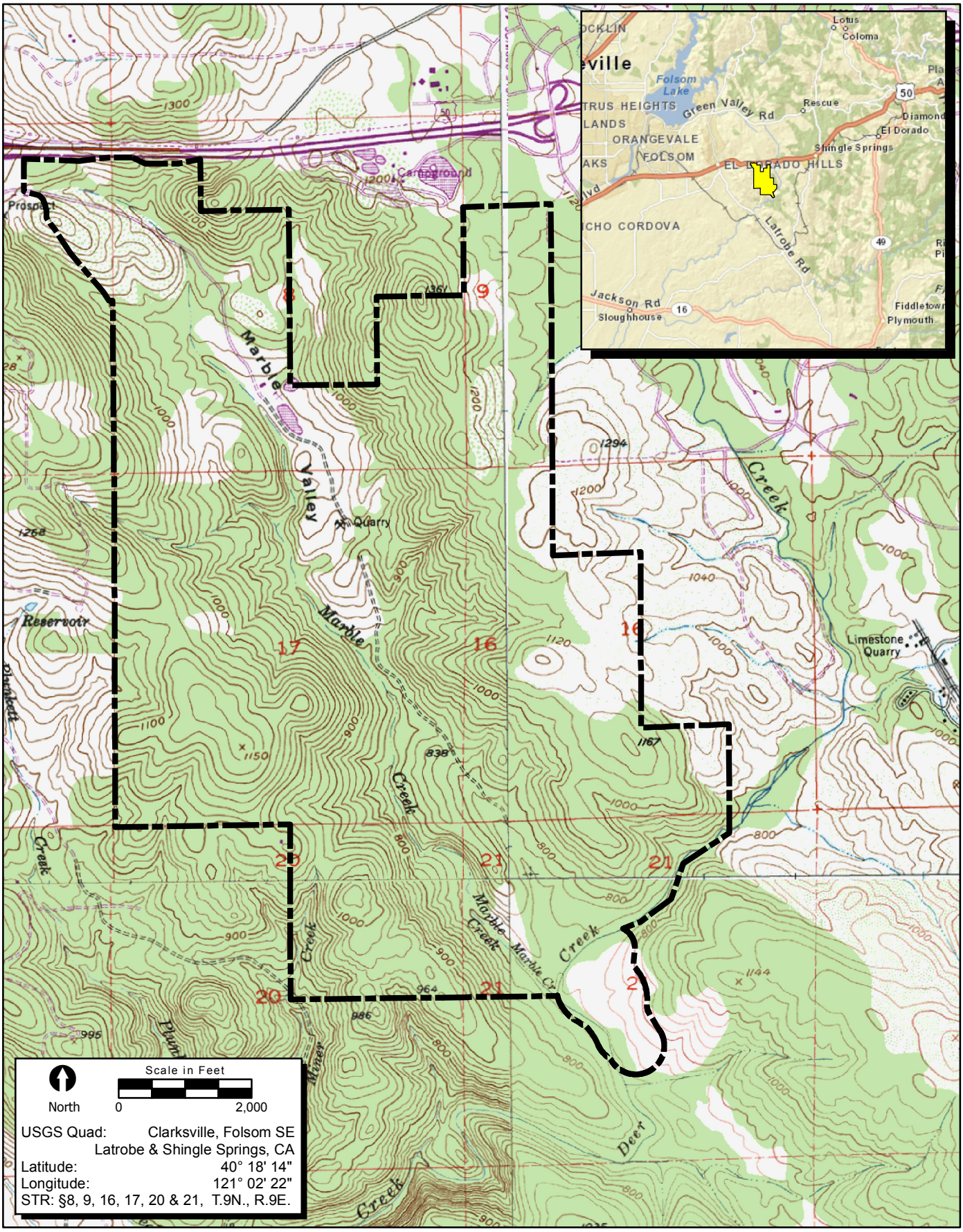
Included is a map showing the project area outlined. We would appreciate input on this undertaking from the Native American community with concerns about possible traditional cultural properties or potential impacts within or adjacent to the Area of Potential Effects. Please understand that this is not a request for location, data or any other information that may be deemed sensitive or confidential to individual Native Americans, Native American organizations, or Federally Recognized Tribes. Information on other parties that may have interests or concerns in the undertaking would be appreciated. Please fax your response to my attention at (916) 782-9134. If you have any questions, please contact me at (916) 782-9100.

Thank you in advance for your assistance.

Sincerely,

Lisa Westwood

Lisa Westwood, RPA
Cultural Resource Manager



N:\2012\2012-020 Marble Valley 2012\MAPS\Site_Vicinity\MV_Vicinity.mxd

Map Date: 4/26/2012

Figure 1. Project Site and Vicinity Map

2012-020 Marble Valley 2012

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390

May 3, 2012

Lisa Westwood
ECORP Consulting, Inc.
2525 Warren Drive
Rocklin, CA 95677

Sent by Fax: 916-782-9134
Number of Pages: 2

Re: Marble Valley, El Dorado County.

Dear Ms. Westwood:

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 653-4038.

Sincerely,

Debbie Pilas-Treadway
Environmental Specialist III

Native American Contacts
El Dorado County
May 2, 2012

April Wallace Moore
19630 Placer Hills Road
Colfax , CA 95713
530-637-4279

Nisenan - So Maidu
Konkow
Washoe

United Auburn Indian Community of the Auburn Rancheria
David Keyser, Chairperson
10720 Indian Hill Road
Auburn , CA 95603
530-883-2390
530-883-2380 - Fax

Maidu
Miwok

Shingle Springs Band of Miwok Indians
Sam Daniels, Vice Chairperson
P.O. Box 1340
Shingle Springs , CA 95682
(530) 676-8010
(530) 676-8033 Fax

Miwok
Maidu

United Auburn Indian Community of the Auburn Rancheria
Marcos Guerrero, Tribal Preservation Committee
10720 Indian Hill Road
Auburn , CA 95603
mguerrero@auburnrancheria.com
530-883-2364
530-883-2320 - Fax

Maidu
Miwok

Shingle Springs Band of Miwok Indians
Nicholas Fonseca, Chairperson
P.O. Box 1340
Shingle Springs , CA 95682
nfonseca@ssband.org
(530) 676-8010
(530) 676-8033 Fax

Miwok
Maidu

Shingle Springs Band of Miwok Indians
Daniel Fonseca
P.O. Box 1340
Shingle Springs , CA 95682
(530) 676-8010
(530) 676-8033 Fax

Miwok
Maidu

T si-Akim Maidu
Eileen Moon,Vice Chairperson
1239 East Main St.
Grass Valley , CA 95945
(530) 477-0711

Maidu

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Marble Valley, El Dorado County

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

7 May 2012

Sam Daniels, Vice Chairperson
Shingle Springs Band of Miwok Indians
P.O. Box 1340
Shingle, CA 95682

RE: Cultural Resources Identification Effort at Marble Valley, El Dorado County (ECORP Project No. 2012-020).

Dear Mr. Daniels:

ECORP Consulting, Inc. is currently conducting a cultural resources inventory of a ~2,000-acre parcel located near El Dorado Hills in El Dorado County. The study is being conducted in advance of approval of the proposed Marble Valley project. The project area is situated in Section 8, 9, 16, 17, 20, and 21 of Township 9N, Range 9E, MDBM. For your reference, the boundaries of the project area are marked on the enclosed topographic quadrangle map.

The purpose of the study is to identify cultural resources that could be affected by the proposed project, as required by Section 106 of the National Historic Preservation Act (NHPA) and the California Environmental Quality Act (CEQA). The investigation included a records search conducted with the North Central Information Center at California State University-Sacramento and a search of the Native American Heritage Commission's Sacred Lands File. The search of the Sacred Lands file did not identify any known Native American cultural resources within the immediate project vicinity; however, the Commission provided us with your name and contact information.

As part of this study, ECORP would like to identify archaeological, historic resources, or locations that are of cultural importance to the local Native American community. We would appreciate any information you may have regarding Native American cultural resources located in or near the proposed project location that could be affected by the proposed development of the parcel. We invite you to offer comments on the project, and we will forward them to the Section 106 lead agency for consideration and appropriate action. The lead agency will respond to your comments as soon as the Section 106 process is initiated. At this time, however, cultural resources investigations are being conducted for project planning purposes only. ECORP is gathering information on potentially unrecorded cultural resources that might be affected by this project.

We encourage you to participate in this process, so that potential impacts to Native American resources can be proactively addressed and minimized to the greatest extent feasible. We would like to receive a response from you about this project within the next two weeks. If we have not heard from you within 30 days of the receipt of this letter, we will assume that you do not wish to comment on this project. If you have any questions, please feel free to call me at (916) 782-9100 or via email at lwestwood@ecorpconsulting.com. Thank you for your assistance and participation in this project.

Sincerely,

Lisa Westwood

Lisa Westwood, RPA
Cultural Resource Manager

Enclosures, as stated

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

7 May 2012

Nicholas Fonseca, Chairperson
Shingle Springs Band of Miwok Indians
P.O. Box 1340
Shingle, CA 95682

RE: Cultural Resources Identification Effort at Marble Valley, El Dorado County (ECORP Project No. 2012-020).

Dear Mr. Fonseca:

ECORP Consulting, Inc. is currently conducting a cultural resources inventory of a ~2,000-acre parcel located near El Dorado Hills in El Dorado County. The study is being conducted in advance of approval of the proposed Marble Valley project. The project area is situated in Section 8, 9, 16, 17, 20, and 21 of Township 9N, Range 9E, MDBM. For your reference, the boundaries of the project area are marked on the enclosed topographic quadrangle map.

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Sincerely,

Lisa Westwood

Lisa Westwood, RPA
Cultural Resource Manager

Enclosures, as stated

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

7 May 2012

Daniel Fonseca
Shingle Springs Band of Miwok Indians
P.O. Box 1340
Shingle, CA 95682

RE: Cultural Resources Identification Effort at Marble Valley, El Dorado County (ECORP Project No. 2012-020).

Dear Mr. Fonseca:

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Sincerely,

Lisa Westwood

Lisa Westwood, RPA
Cultural Resource Manager

Enclosures, as stated

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

7 May 2012

David Keyser, Chairperson
United Auburn Indian Community of the Auburn Rancheria
10720 Indian Hill Road
Auburn, CA 95603

RE: Cultural Resources Identification Effort at Marble Valley, El Dorado County (ECORP Project No. 2012-020).

Dear Mr. Keyser:

ECORP Consulting, Inc. is currently conducting a cultural resources inventory of a ~2,000-acre parcel located near El Dorado Hills in El Dorado County. The study is being conducted in advance of approval of the proposed Marble Valley project. The project area is situated in Section 8, 9, 16, 17, 20, and 21 of Township 9N, Range 9E, MDBM. For your reference, the boundaries of the project area are marked on the enclosed topographic quadrangle map.

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Sincerely,

Lisa Westwood

Lisa Westwood, RPA
Cultural Resource Manager

Enclosures, as stated

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

7 May 2012

Marcos Guerrero, Tribal Preservation Committee
United Auburn Indian Community of the Auburn Rancheria
10720 Indian Hill Road
Auburn, CA 95603

RE: Cultural Resources Identification Effort at Marble Valley, El Dorado County (ECORP Project No. 2012-020).

Dear Mr. Guerrero:

ECORP Consulting, Inc. is currently conducting a cultural resources inventory of a ~2,000-acre parcel located near El Dorado Hills in El Dorado County. The study is being conducted in advance of approval of the proposed Marble Valley project. The project area is situated in Section 8, 9, 16, 17, 20, and 21 of Township 9N, Range 9E, MDBM. For your reference, the boundaries of the project area are marked on the enclosed topographic quadrangle map.

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Sincerely,

Lisa Westwood

Lisa Westwood, RPA
Cultural Resource Manager

Enclosures, as stated

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

7 May 2012

April Wallace Moore
19630 Placer Hills Road
Colfax, CA 95713

RE: Cultural Resources Identification Effort at Marble Valley, El Dorado County (ECORP Project No. 2012-020).

Dear Ms. Moore:

ECORP Consulting, Inc. is currently conducting a cultural resources inventory of a ~2,000-acre parcel located near El Dorado Hills in El Dorado County. The study is being conducted in advance of approval of the proposed Marble Valley project. The project area is situated in Section 8, 9, 16, 17, 20, and 21 of Township 9N, Range 9E, MDBM. For your reference, the boundaries of the project area are marked on the enclosed topographic quadrangle map.

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Sincerely,

Lisa Westwood

Lisa Westwood, RPA
Cultural Resource Manager

Enclosures, as stated

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

7 May 2012

Eileen Moon, Vice Chairperson
T si-Akim Maidu
1239 East Main Street
Grass Valley, CA 95945

RE: Cultural Resources Identification Effort at Marble Valley, El Dorado County (ECORP Project No. 2012-020).

Dear Ms. Moon:

ECORP Consulting, Inc. is currently conducting a cultural resources inventory of a ~2,000-acre parcel located near El Dorado Hills in El Dorado County. The study is being conducted in advance of approval of the proposed Marble Valley project. The project area is situated in Section 8, 9, 16, 17, 20, and 21 of Township 9N, Range 9E, MDBM. For your reference, the boundaries of the project area are marked on the enclosed topographic quadrangle map.

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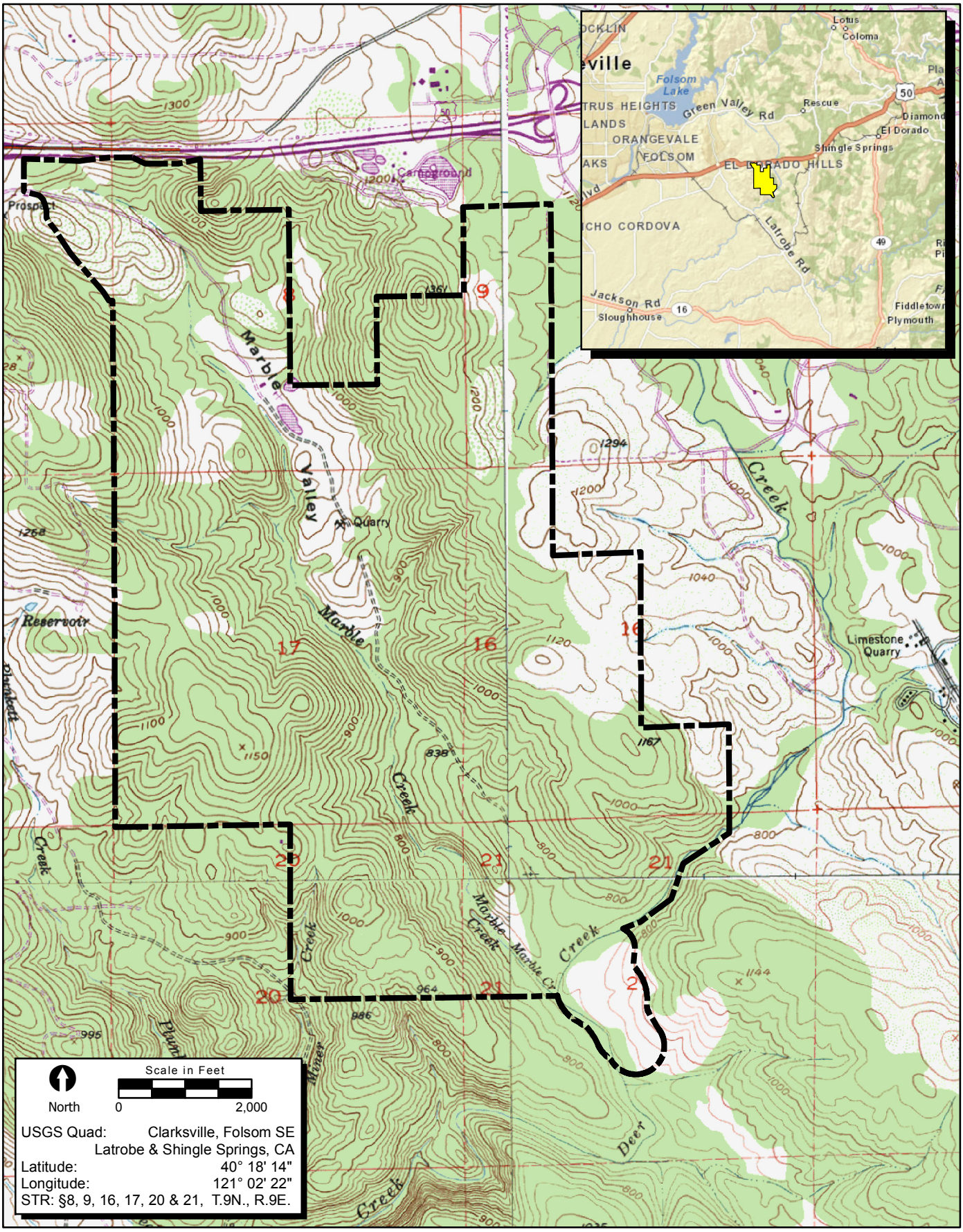
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Sincerely,

Lisa Westwood

Lisa Westwood, RPA
Cultural Resource Manager

Enclosures, as stated



N:\2012\2012-020 Marble Valley 2012\MAPS\Site_Vicinity\MV_Vicinity.mxd

Map Date: 4/26/2012

Figure 1. Project Site and Vicinity Map

2012-020 Marble Valley 2012

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

SHINGLE SPRINGS RANCHERIA

Shingle Springs Band of Miwok Indians,
Shingle Springs Rancheria
(Verona Tract), California
5281 Honpie Road, Placerville, CA 95667
P.O. Box 1340, Shingle Springs, CA 95682
(530) 676-8010 Office (530)676-8033 Fax

May 14, 2012

ECORP Consulting, Inc.
2525 Warren Drive
Rocklin, CA 95677

RE: Cultural Resources Identification Effort at Marble Valley, El Dorado County (ECORP Project No. 2012-020).

Dear Lisa Westwood

The Most likely Descendant, Daniel Fonseca would like to initiate consultation process with ECORP Consulting, Inc. for the proposed Marble Valley Project located in El Dorado County. Among other things, we would like this consultation to address the cultural and historic resource issues, pursuant to the regulations implementing Section 106 of the National Historic Preservation Act.

Prior to meeting we would like to request any and all completed record searches and or surveys that were done in or around the project area up to and including environmental, archaeological and cultural reports.

Please let this letter serve as a formal request for the Shingle Springs Band of Miwok Indians to be added as a consulting party in identifying any Traditional Cultural Properties (TCPs) that may exist within the project's Area of Potential Effects (APE).

Please contact Crystal Dilworth, Cultural Resource Office Manager at 530-698-1471 to schedule a consultation meeting pursuant to Section 106 of the NHPA.

Sincerely,

Daniel Fonseca
Cultural Resources Director

MIWOK
MAIDU

United Auburn Indian Community
of the Auburn Rancheria

David Keyser
Chairman

Kimberly DuBach
Vice Chair

Gene Whitehouse
Secretary

Brenda Adams
Treasurer

Calvin Moman
Council Member

May 16, 2012

Lisa Westwood
ECORP Consulting, Inc.
2525 Warren Drive
Rocklin, CA 95677

Subject: Marble Valley, No. 2012-020

Dear Ms. Westwood,

Thank you for requesting information regarding the above referenced project. The United Auburn Indian Community (UAIC) of the Auburn Rancheria is comprised of Miwok and Southern Maidu (Nisenan) people whose tribal lands are within Placer County and ancestral territory spans into El Dorado, Nevada, Sacramento, Sutter, and Yuba counties. The UAIC is concerned about development within its aboriginal territory that has potential to impact the lifeways, cultural sites, and landscapes that may be of sacred or ceremonial significance. We appreciate the opportunity to comment on this and other projects in your jurisdiction.

In order to ascertain whether or not the project could affect cultural resources that may be of importance to the UAIC, we would like to receive copies of any archaeological reports that have been, or will be, completed for the project. We also request copies of future environmental documents for the proposed project so that we have the opportunity to comment on potential impacts and proposed mitigation measures related to cultural resources. The UAIC would also like the opportunity to have our tribal monitors accompany you during the field survey. The information gathered will provide us with a better understanding of the project and cultural resources on site and is invaluable for consultation purposes.

The UAIC's preservation committee has identified cultural resources within your project area and in close proximity, and would like to request a site visit to confirm their locations and meet with you regarding this project. Thank you again for taking these matters into consideration, and for involving the UAIC early in the planning process. We look forward to reviewing the aforementioned documents as requested. Please contact Marcos Guerrero, Tribal Historic Preservation Officer, at (530) 883-2364 or email at mguerrero@auburnrancheria.com if you have any questions.

Sincerely,

David Keyser,
Chairman

CC: Marcos Guerrero, THPO

Appendix H

Water Supply Assessment

EL DORADO IRRIGATION DISTRICT

SB 610 WATER SUPPLY ASSESSMENT FOR THE VILLAGE OF MARBLE VALLEY SPECIFIC PLAN

SB 610 Water Supply Assessment

Prepared for the
Village of Marble Valley Specific Plan

Final

August 2013

Prepared by:

Tully & Young
Comprehensive Water Planning

Prepared for:



El Dorado Irrigation District

Approved by Eldorado Irrigation District Board of Directors
on August 26, 2013 as action item #8

Contact: Cindy Megerdigian – Water/Hydro Engineering Manager
2890 Mosquito Road, Placerville CA 95667
(530) 642-4056 Fax: (530) 642-4356
cmegerdigian@eid.org

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SECTION 1 – PROJECT INTRODUCTION

1.1 INTRODUCTION

In December 2012, the El Dorado Irrigation District (EID) received a letter from the El Dorado County Planning Department (County) requesting the completion of a Water Supply Assessment (WSA) for the Village of Marble Valley Specific Plan (hereafter referred to as the "Proposed Project"). As the proposed water supply purveyor for the Proposed Project, EID has prepared this WSA to assess the availability and sufficiency of EID's water supplies to meet the Proposed Project's estimated water demands. This document provides the necessary information to comply with the assessment of sufficiency as required by statute.

Statutory Background

Enacted in 2001, Senate Bill 610 added section 21151.9 to the Public Resources Code requiring that any proposed "project," as defined in section 10912 of the Water Code, comply with Water Code section 10910, et seq. Commonly referred to as a "SB 610 Water Supply Assessment," Water Code section 10910 outlines the necessary information and analysis that must be included in an environmental analysis of the project (e.g. CEQA compliance) to ensure that proposed land developments have a sufficient water supply to meet existing and planned water demands over a 20-year projection.

Proposed "projects" requiring the preparation of a SB 610 water supply assessment include, among others, residential developments of more than 500 dwelling units, shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space, commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space and projects that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.[1]

The Proposed Project requires a WSA because it contemplates more than 500 new dwelling units as detailed in Section 1.2.

Document Organization

This WSA supports the Proposed Project's environmental review process and analyzes the sufficiency of water supplies to meet projected water demands of the Proposed Project through the required planning horizon. The WSA is organized according to the following sections:

- **Section 1: Project Introduction**. This section provides an overview of WSA requirements, and a detailed description of the Proposed Project, especially the land-use elements that will require water service.

[1] Water Code § 10912, subdivision (a).

- **Section 2: Proposed Project Estimated Water Demands**. This section describes the methodology used to estimate water demands of the Proposed Project and details the estimated water demands at build-out of the Proposed Project.

- **Section 3: Other Estimated Water Demands**. This section details the other water demands currently served by EID and anticipated to be served based on information in the El Dorado County's (County) General Plan as well as known and potential planned modifications since the County's adoption of the General Plan.

- **Section 4: Water Supply Characterization**. This section characterizes the EID water supply portfolio that will serve the Proposed Project along with other current and future water demands. Water rights, along with water service contracts and agreements are characterized for normal, single dry, and multiple dry year conditions.

- **Section 5: Sufficiency Analysis**. This section assesses whether sufficient water will be available to meet the Proposed Project water demands, while recognizing existing and other potential planned water demands within the EID service area. To provide the necessary conclusions required by statute, the analysis integrates the demand detailed in Section 2 and Section 3 with the characterization of EID's water supply portfolio detailed in Section 4.

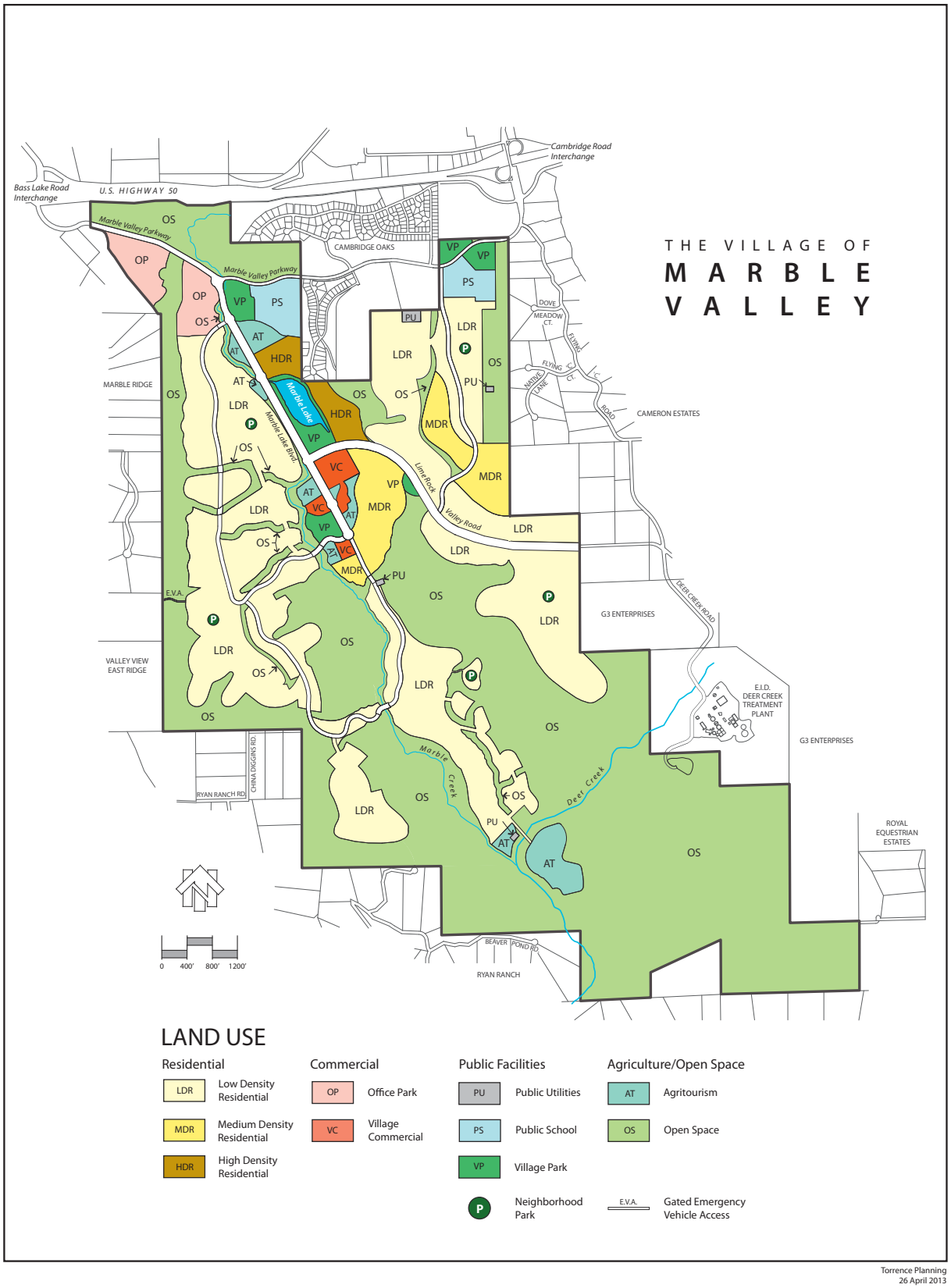
1.2 PROPOSED PROJECT DESCRIPTION

The Proposed Project is a planned development between Bass Lake and Cambridge Roads, south of Highway 50 encompassing approximately 2,340 acres in the unincorporated community of El Dorado Hills (see **Figure 1-1**).

The Proposed Project includes 3,236 residences, commercial space, village and neighborhood parks, agricultural uses, two schools, and open space. Proposed residential dwelling units include 193 custom lots on approximately 1 acre, 125 custom homes on approximately 1/2 acre-lots, 982 production lots with densities of 3 to 4 dwelling units per acre (designated "medium density-low"), 663 production lots with densities of 4 to 5 dwelling units per acre (designated "medium density-high"), 981 lots with densities of 7 to 12 dwelling units per acre (designated "Condo/Duplex"), and 292 high-density units (designated "multi-family"). Parks are spread throughout the project and include private parks in the gated areas, joint use parks along side the schools, village parks for non gated areas, a large park around the lake, and a historic park. The project includes about 475,000 square feet of commercial, retail, office, and other non-residential space residing on about 58 acres on the project site. Both a K5 and K8 school are planned for about 35 acres. About 55 acres of vineyards are to be planted on site both in designated lots and in some medians for aesthetics.

Table 1-1 summarizes the proposed land use acreages.

Figure 1-1 – Proposed Project Location and Land Uses



1.2.2 Projected Land Uses

Table 1-1 – Summary of Proposed Build-Out Land Uses and Acreages[2]

Land Use	Description	Acres	Units
1 Acre Custom Homes	1 DU/Ac	198	193
1/2 Acre Custom Homes	2 DU/Ac	62	125
3-4 per Acre Production Homes	3-4 DU/Ac	277	982
4-5 per Acre Production Homes	4-5 DU/Ac	148	663
Condominiums/Town Homes	5-12 DU/Ac	85	772
High Density Residential	12-24 DU/Ac	28	501
Office Park/Commercial	--	60	--
Schools	--	35	--
Parks	--	47	--
Open Space	--	1,282	--
ROW and Landscaping	--	73	--
Vineyards	--	55	--
	Total	**2,350**	**3,236**

1.3 PROPOSED PROJECT PHASING

Table 1-2 describes the Proposed Project's four construction phases. Each phase represents a portion of the development, focusing on particular land-use classifications. Before constructing homes, commercial space, or other parts of the development, the proponents will begin site grading and project-wide infrastructure development. Some infrastructure and site grading will continue throughout all phases of the Proposed Project, as necessary. These activities include installing facilities for potable water, recycled water (as appropriate for the Proposed Project), sewer, electric, telecommunications, gas, stormwater, and roads. During these activities, a small water demand will exist – referred to in this WSA as "construction water." This demand is included in the yearly water demands presented in Section 2.

The initial phase will result in approximately one quarter of the Proposed Project demanding water service by 2020, with the three subsequent phases each adding an additional quarter as they are completed. All construction is planned to be completed by 2035, within the 20-year planning horizon of this WSA.

[2] Specific Plan Land Use Summary was provided by El Dorado County of Development Services Department.

Table 1-2 – Proposed Project Schedule

Land Use	Phase 1 By 2020	Phase 2 2021-2025	Phase 3 2026-2030	Phase 4 2031-2035	Total
1 Acre Custom Homes	25	20	100	48	193
1/2 Acre Custom Homes	25	25	--	75	125
3-4 per Acre Production Homes	215	378	--	389	982
4-5 per Acre Production Homes	--	--	663	--	663
Condominiums/Town Homes	75	522	175	--	772
High Density Residential	209	50	228	14	501
Total	549	995	1,166	526	**3,236**

SECTION 2 – PROPOSED PROJECT ESTIMATED WATER DEMANDS

2.1 INTRODUCTION

This section describes the methodology, provides the supporting evidence, and presents the estimated water demands for the Proposed Project. For the purpose of estimating water demand, the Proposed Project is planned to develop according to the phasing in **Table 1-2**.

2.2 DETERMINING UNIT WATER DEMAND FACTORS

As detailed in Section 1, the Proposed Project has specific residential and non-residential land-uses with defined residential lot-sizes, types of commercial uses and other characteristics. As these attributes vary among the types of proposed land-uses, so too will the water needs. To understand the water needs of the entire Proposed Project, unique demand factors that correspond with each unique land use are necessary. This subsection presents the methodology for determining the baseline unit water use demand factors that become the basis of the Proposed Project water demand estimates. Two distinct groups of demand factors are presented: (1) residential, and (2) non-residential.

2.3 PRIMARY SOURCE OF BASELINE WATER USE DATA

Because the Proposed Project is very similar in nature to particular elements built as part of the Serrano and El Dorado Hills developments over the past few decades, recent water use data for comparable products in these neighborhoods provides a reliable foundation for EID to establish new project-specific water demands. Through comparison of Proposed Project land-use elements to existing land uses, EID determined appropriate existing, established neighborhoods and commercial facilities that best aligned with each unique residential and non-residential project element. For each comparable neighborhood, EID gathered and assessed total annual water use for the years 2008 through 2012. This selected period of water use best represents 1) the highest build-out percentage within each selected area (including established back-yard landscapes), and 2) varied water use over a range of climatic conditions reflecting various rainfall amounts and timing. Average annual uses were derived from the data and are discussed under the respective land-use categories.

2.4 BASELINE RESIDENTIAL WATER USE DEMAND FACTORS

The Proposed Project anticipates specific residential products that fall within general lot-size designations. The size of the lot will have the largest impact on the annual per-lot demand for water. Indoor demands remain relatively consistent regardless of lot size, with the exception of apartments, which tend to have fewer people living in each unit and thus a slightly lower indoor use.

For purposes of this WSA, the per-lot demand for residential lots will be described as "the acre-feet of water use annually per dwelling unit" – or simply put, acre-feet/dwelling unit (af/du). This value will reflect indoor and outdoor uses expected for a typical dwelling unit for each of the following classifications:[3]

- 1-acre custom lots
- ½-acre custom lots
- 8,000 to 10,000 square-foot production lots
- 5,000 to 7,000 square-foot production lots
- Condominiums/townhouses
- Multi-family housing with community facilities including pool and/or clubhouse

The method and basis for determining the baseline unit water demand factor for each of these classifications is detailed in the following subsections.

1-Acre Custom Home Lots

Water demand factors for the proposed large lots are based on recent water use data records for residential lots in the Serrano development – specifically existing residential lots located on Greenview Drive, Errante Drive, and others. The proposed lots in this category average at about 1 acre. However, not all land on these lots will be landscaped. For instance, a lot may include hillside and/or areas of oak woodland that must be protected, resulting in a diminished area for the home's footprint, outdoor hardscapes and landscaping. Generally, the house itself is large, with extensive outdoor features including pools, hardscapes, water features, and significant landscaping with well-maintained turf areas.

Based on available historic meter data for similar developments served by EID, the baseline unit water demand factor for this land-use category is approximately 1.16 af/du.

½-Acre Custom Home Lots

Water demand factors for the proposed large lots are based on recent water use data records for residential lots in the Serrano development – specifically existing residential lots located on Renaissance Way and Renaissance Place. The proposed lots in this category average at about 1/2-acre though have a project minimum of 15,000 square feet. Landscaping on the lot may be based on a predetermined landscaping package for a production home. Generally, the house itself is large, with extensive outdoor features including pools, hardscapes, water features, and significant landscaping with well-maintained turf areas.

Based on available historic meter data for similar developments served by EID, the baseline unit water demand factor for this land-use category is approximately 0.87 af/du.

[3] These classifications reflect EID's defined water demand factor categories as EID believes they best relate to the Proposed Project's land-use classifications as shown in the Table 1-1.

8,000 to 10,000 Square-foot Production Lots

The proposed project will include a large number of lots reserved for production homes on lots typically described as "large" for a residential community. For these lots, ranging up to ¼-acre or more, water demands will be based on recent water use data records for similar lots in the Serrano development – specifically Village D2 and portions of Village E, which includes numerous similar-sized lots. In contrast to the smaller lot production homes described in the next classification, these lots will retain adequate area on the lot for well-maintained turf and other landscaping. As much as one-half, but not less than about one-quarter, of the lot may still remain for landscaping, after accounting for the home's footprint and hardscape areas – equating to a few thousand to several thousand square-feet. Though less landscaped area than the custom home lots, the landscaped area will drive water use on these lots.

Based on the available historic meter data for similar developments served by EID, the baseline unit water demand factor for this land-use category is 0.55 af/du.

5,000 to 7,000 Square-foot Production Lots

The Proposed Project includes numerous proposed lots with average of 4 to 5 dwelling units per acre. As a result of the limited outdoor area, many of these lots are limited to front-yard landscaping with well-maintained turf, and back yards often only including hardscapes, pools or other amenities, and lower water using landscapes. Unit water demands are based on recent water use data records for similar lots in the Serrano development – specifically Village D1A, portions of Village E and Euer Ranch, which include numerous similar-sized lots.

Based on the available historic meter data for similar developments served by EID, the baseline unit water demand factor for this land-use category is 0.50 af/du.

Condominiums/Townhouses

The Proposed Project includes numerous proposed lots characterized as being condominiums or townhomes (7 to 12 units per acre). These proposed lots are anticipated to be similar to projects in the El Dorado Hills area, most notable the Regalo Project in Serrano. The Proposed Project includes large attached housing units, with large individual landscape yards and common areas.

Based on the available historic meter data for similar developments served by EID, the baseline unit water demand factor for this land-use category is 0.40 af/du.

Multi-Family Housing

The Proposed Project includes numerous multi-family housing elements characterized as multi-family housing. These lots will include community landscaping, multi-story housing structures, community pools and other amenities. These projects are anticipated to be similar to the existing indoor and outdoor demands of the Sterling Apartment and Vineyard Apartment properties currently served by EID. Although both of these properties differ in their layouts and landscape

types and coverage, both use approximately the same quantity of water on a per-dwelling unit basis.

Based on the available historic meter data for similar developments served by EID, the baseline unit water demand factor for this land-use category is 0.16 af/du – inclusive of both indoor and outdoor demands.

Residential Indoor Water Use

Based on EID meter data for the past several years, indoor water use for typical single-family homes averages about 0.18 af/du.[4]. The value drops for apartments as a result of less people on average living in each apartment unit.[5] This value can be used to derive separation of residential demands that could be served with non-potable supplies, such as recycled water from the Deer Creek and/or El Dorado Hills wastewater treatment facilities (see Section 2.7.2).

2.5 MODIFYING BASELINE VALUES

All of the above-developed water demand factors for the residential classifications are based on similar existing developments in the El Dorado Hills area. However, since construction of the existing houses, a few changes have occurred that will reduce the Proposed Project's water demands from the baseline unit water demands derived from existing meter data. These include:

- CAL Green Code
- California Model Water Efficient Landscape Ordinance

CAL Green Code

In January 2010, the California Building Standards Commission adopted the statewide mandatory Green Building Standards Code (CAL Green Code) that requires the installation of water-efficient indoor infrastructure for all new projects beginning January 1, 2011. CAL Green Code was incorporated as Part 11 into Title 24 of the California Code of Regulations.[6] The CAL Green Code applies to the planning, design, operation, construction, use and occupancy of every newly constructed building or structure. All proposed land uses must satisfy the indoor water use infrastructure standards necessary to meet the CAL Green Code. The CAL Green Code requires residential and nonresidential water efficiency and conservation measures for new buildings and structures that will reduce the overall potable water use inside the building by 20 percent. The 20 percent water savings can be achieved in one of the following ways: (1) installation of plumbing fixtures and fittings that meet the 20 percent reduced flow rate specified in the CAL Green Code, or (2) by demonstrating a 20 percent reduction in water use from the building

[4] This value is a subset of the total usage estimated for a dwelling unit under each land-use category. Data from 2012 Water Resources and Service Reliability Report, EID, August 13, 2012, Appendix Table A, p.42
[5] El Dorado County indicates the average household size is 2.63 persons per occupied unit. (El Dorado County General Plan, 2008 Housing Element, August 2008 (Amended April 2009), p. 4-7).
[6] The CAL Green Code is Part 11 in Title 24.

"water use baseline."[7] The Proposed Project will satisfy one of these two requirements through the use of appliances and fixtures such as high-efficiency toilets, faucet aerators, on-demand water heaters, as well as Energy Star and California Energy Commission-approved appliances.

California Model Water Efficient Landscape Ordinance

In 2006, the Water Conservation in Landscaping Act was enacted, which required the Department of Water Resources to update the Model Water Efficient Landscape Ordinance (MWELO).[8] In fall of 2009, the Office of Administrative Law (OAL) approved the updated MWELO, which required that a retail water supplier adopt the provisions of the MWELO by January 1, 2010 or enact its own provisions equal to or more restrictive than the MWELO provisions.

The provisions of the MWELO are applicable to new construction with a landscape area greater than 2,500 square feet.[9] The MWELO provides a methodology to calculate total water use based upon a given plant factor and irrigation efficiency. Finally, MWELO requires the landscape design plan to delineate hydrozones (based upon plant factors) and then assign a unique valve for each hydrozone (low, medium, high water use).[10] The design of landscape irrigation systems is anticipated to better match the needs of grouped plant-types and thus result in more efficient outdoor irrigation.

Applying Conservation to Baseline Demand Factors

Collectively, these and other factors will put downward pressure on the baseline residential unit water demand factors – potentially dropping each unit demand by up to 10 percent for the larger lots. **Table 2-1** provides a summary of the baseline demand factor for each residential land-use category, the anticipated savings from the conservation mandates, and the resulting unit demand factor used to estimate the Proposed Project's water use.

[7] See CAL Green Code.
[8] Gov. Code §§ 65591-65599
[9] CCR Tit. 23, Div. 2, Ch. 27, Sec. 490.1.
[10] CCR Tit. 23, Div. 2, Ch. 27, Secs. 492.3(a)(2)(A) and 492.7(a)(2).

Table 2-1 – Summary of Residential Baseline and Proposed Project Demand Factors

EID Water Demand Category (Relates to Table 1-1 Land Use)	Density Range	Current Factor (af/du)	Conservation Applied	Factor Used (af/du)
1 Acre Custom Homes	1 DU/Ac	1.16	10%	1.04
1/2 Acre Custom Homes	2 DU/Ac	0.87	8%	0.80
8,000-10,000 sf Lots	3 - 4 DU/Ac	0.55	5%	0.52
5,000-7,000 sf Lots	4 - 5 DU/Ac	0.50	5%	0.48
Condominiums/Town Homes	7 - 12 DU/Ac	0.40	4%	0.38
Multi-Family Housing[1]	15 - 24 DU/Ac	0.16	2%	0.16

1. The Multi-family Housing values remain constant due to rounding. The "current factor" was determined to be 0.165 af/du.

2.6 Baseline Non-Residential Water Use Demand Factors

Similar to the residential water demand factors, non-residential factors are based upon recent water use trends for similar types of land classifications.

For purposes of this WSA, the per-lot demand for non-residential lots is described as "the acre-feet of water use annually per acre of land" – or simply put, acre-feet/acre (af/ac). This value reflects indoor and outdoor water needs expected for a typical non-residential use for each of the following classifications:

- Office Park/Village Commercial
- Public and Neighborhood Parks
- Schools
- Other miscellaneous uses, including street medians, recreational lake, vineyards, and environmental mitigation

The method and basis for determining the baseline unit water demand factor for each of these classifications is detailed in the following subsections.

Office Park/Village Commercial

The proposed office park/village commercial facilities are anticipated to be "office space" as well as "retail and entertainment" in nature. Analysis of recent meter data for both the La Borgata retail facility on El Dorado Hills Boulevard and the Village Green office/public facility at the corner of Silva Valley and Serrano Parkways indicates that water use on a per-acre basis is nearly consistent, with the retail space using about 2.15 af/ac and the office facility using 1.95 af/ac. Although the Village Green indoor facilities have lower use, the area has more turf landscaped area (not including Village Green park), which matches, on a gross acre-by-acre comparison with the higher indoor retail demands and limited landscaping of the restaurants at La Borgata.

Based on the available historic meter data for similar facilities served by EID, the unit water demand factor is 2.0 af/ac.

Public and Neighborhood Parks

The Proposed Project includes five neighborhood parks, two village joint-use parks, and two special use parks. Neighborhood parks will include expansive turf areas, playfields, and other park amenities. Village joint-use parks will be adjacent to the school facilities and consist of similar features as the neighborhood parks. The special use parks, that surround the lake and historical site, differ from the other parks and are analyzed on a net landscaped acreage to match the water use estimates. Based upon recent water meter data for similar park facilities in the El Dorado Hills area – namely Bella Terra Park, Allan Lindsey Park, and the Village A, C, L3, and L4 parks – a representative water demand factor was identified. A "smart meter" controls the irrigation system at each existing park. These devices adjust water use to actual climate data, including precipitation events. Thus, the recent meter data is very indicative of expected demands for the new parks, which will also be outfitted with similar technology.

Based on the available historic meter data for similar facilities served by EID, the unit water demand factor is 2.77 af/ac.

Schools

The Proposed Project includes two schools: a Kindergarten through 5th grade, and a Kindergarten through 8th grade. The schools will use adjacent village parks for school-related recreational activities, and will include turf playfields. As an example, the water use at Oak Meadows Elementary on Silva Valley Parkway provides a useful representation of the expectations for the two proposed school facilities. Oak Meadows, operational by 2004, has an average water use of 1.70 af/ac – representing a use of about 0.019 af/student. For comparison, other schools in the area were analyzed and had very comparable per-student water use rates for similar facilities. But, the range in school use varied from as much as 2.5 af/ac to 0.8 af/ac – depending on factors like total school footprint, number of students and amenities. The average among seven schools analyzed was 1.43 af/ac. For purposes of this WSA, the average value would be an appropriate estimation for the future school sites.

Based on the available historic meter data for similar facilities served by EID, the unit water demand factor will use a baseline value of approximately 1.43 af/ac.

Other Miscellaneous Uses

The Proposed Project has additional miscellaneous uses including landscaped street medians, environmental mitigation requirements, a recreational lake, vineyards, gate houses at entrances to private streets, sewer lift stations, and construction water. These uses have minimal impacts to the overall per-project total water use due to their limited size and water needs, and some are temporary in nature.

Landscape Street Medians and Community Entrances

The Proposed Project includes proposed landscaping along street corridors and at entrances to particular residential areas, as is common in El Dorado Hills. Since comparable data is not available due to the variety of landscapes used in existing street medians around El Dorado Hills, unit water demands for this category is derived from the MWELO (see prior discussion under "residential land-uses"). To provide flexibility to the Proposed Project to landscape as needed, the entire width of the landscaped area was assumed to demand the maximum use allowed by MWELO.[11] This maximum is determined as 70 percent of the reference evapotranspiration for the area. Using available maps from the California Department of Water Resources, the reference evapotranspiration for the Proposed Project area is approximately 57 inches per year.[12] The resulting demand factor is 3.3 af/ac.

Oak Woodlands Management

As of the preparation of this WSA, the mitigation requirements for impacts to oak woodlands resulting from the Proposed Project are as detailed in the County's Policy 7.4.4.4.[13] For purposes of estimating the water demands of this Proposed Project element, the WSA assumes mitigation will include establishing new trees, likely with associated irrigation water to assure seedlings are established. As defined in the County's Oak Woodland Management Plan Monitoring Program:

> *"Replacement of removed tree canopy . . . is subject to intensive to moderate management and 10 to 15 years of monitoring, respectively. The survival rate shall be 90 percent as specified in the approved monitoring plan for the project, prepared by a qualified professional. Acorns may be used instead of saplings or one gallon trees."*
>
> *"Management intensity assumes that 10 years after planting 1 year old saplings that trees that have been nurtured with high management intensity will be on average 2 inches DBH with 90 percent survival; moderate management intensity will result in trees that are on average 1.5 inches DBH with 85 percent survival."*

More precisely, an intensive management program is required to obtain 90 percent survival. The management includes10 years of monitoring for one-gallon/one year old saplings and 15 years of

[11] Although this may be higher than seen by EID for current street medians and community entrances, this conservative assumption allows the Proposed Project with flexibility to landscape these areas up to the full demands of MWELO.

[12] Reference Evapotranspiration is obtained from the map available at http://wwwcimis.water.ca.gov/cimis/cimiSatEtoZones.jsp

[13] The County Board of Supervisors has an Oak Woodland Management Plan (OWMP) codified as Chapter 17.73 of the County Code (Ord. 4771. May 6, 2008.). The primary purpose of this plan is to implement the Option B provisions of Policy 7.4.4.4. On September 24, 2012, the Board of Supervisors directed the Development Services Department to prepare a General Plan amendment to amend Policies 7.4.2.8, 7.4.2.9, 7.4.4.4, 7.4.4.5, 7.4.5.1, and 7.4.5.2 and their related implementation measures to clarify and refine the County's policies regarding oak tree protection and habitat preservation. (This excerpt was copied from the following El Dorado County web site: http://www.edcgov.us/Government/Planning/General_Plan_Oak_Woodlands.aspx on May 4, 2013.)

monitoring if acorns are planted. Any trees/acorns that do not survive within the monitoring periods are to be replaced within that time, so that 90 percent survival is achieved at the end of the monitoring period.

Because establishment of new trees is highly dependent on site conditions (soil depth and composition, depth to water table, slope, aspect, existing vegetation), planting conditions (water year, starting from acorns or saplings, weed mats, mulch, density of plantings and other adjacent veg, etc.), establishment and maintenance practices (manual or installed irrigation systems, and irrigation intervals), and the required success criteria (target % survival), the estimated water demands are difficult to predict.[14] However, in order to be reasonably conservative, this WSA assumes that each acre of habitat mitigation will require 1 acre-foot per acre of annual irrigation for a period of 15 years.[15] For instance, if the Proposed Project must mitigate with 10 acres of woodland, the demand would be 10 acre-feet annually. All oak woodland will be established prior to build-out and require no on-going irrigation.

Recreational Lake

The recreational lake is expected to need augmentation water to maintain desired lake elevations. Currently, the lake fills from adjacent groundwater seepage and stormwater runoff. Based on characterizations of this seepage from Proposed Project representatives, the water elevation often lowers during the summer and fall as surface evaporation outpaces seepage. To maintain water level elevations in the 10-acre lake, and estimated 6 to 10 acre-feet per surface acre of the lake will be assumed. For the entire lake, this equates to between 60 and 100 acre-feet. For purposes of the WSA, an assumed annual demand of 85 acre-feet will be used.

Vineyards

The Proposed Project will include approximately 55 acres of vineyards spread throughout the project. These vineyards serve as both an aesthetic feature and a business function – actively producing wine grapes. The majority of the planting is located on lots spread between differing housing types. Vineyards are also used in medians and other ornamental type plantings where appropriate. The use of vineyards in this fashion results in lower water use than fully landscaped medians. The vineyard water use estimates is based on a collection of documents from the University of California – Cooperative Extension combined with input for a local producer and winemaker. Reviewing water use data from *Wine Grape Cost and Return Studies, El Dorado and Amador Counties*, as well as other areas with similar climates and elevations, water demand range from 5 to 12 inches per year for established vines. In the interest of being conservative,

[14] A qualified professional will likely develop the project specific oak management plan. More detailed water use will be available in this plan. Review of information from oak mitigation projects in the area revealed a range of planting types, irrigation methods, and management time frames. Overall, irrigation demands were all low as would be expected for a native species.

[15] A conservative water demand number and a long management window were assumed to provide the Proposed Project applicants flexibility in meeting the oak woodland mitigation requirements.

the 12-inch annual value is used.[16] To account for any additional water demands while establishing the vines, this WSA assumes that twice the water will be needed in the first few years following planting. As shown in **Table 2-3**, the initial demand upon planning (included for the first 5-year increment for each vineyard planning phase) is 2 acre-feet/acre. This value drops to 1 acre-foot/acre for the remainder of the analysis period for a particular planting phase.

Gate Houses at Private Entrances

No usable comparison exists in the EID water use history to represent the demand of a gate house. A gate house consists of a small building with a single bathroom. The average country club employee per shift uses 50 Liters per day, or just over 13.2 gallons.[17] Assuming two employees per shift and 3 shifts per day, the resulting water use comes out to about 0.09 acre-feet per year. To be conservative, the demand used is rounded up to 0.1 acre-feet per year.

Sewer Lift Stations

Lift station demand comes in form of maintenance of the stations. Operational flushing at these lift stations is the primary water use. Based on EID records for such operations, each lift station is assumed to demand 2.5 acre-feet of water annually.

Construction Water

As stated in Section 1, early phases of the Proposed Project will include site grading and infrastructure installation. These and other construction elements will require dust suppression and other incidental water uses. These are estimated to be nominal, and do not continue beyond the construction phases of the Proposed Project. For purposes of identifying incremental water demands, construction water is assumed within this WSA to be 11 acre-feet per year (this is well over 3.5 million gallons – or nearly 900 fill-ups of a 4,000 gallon water truck annually).

Modifications to Reflect Additional Water Use Reductions

Similar to the residential demand factors, the above-developed water demand factors for the non-residential classifications are based on similar existing developments in the El Dorado Hills area. Considerations to reduce these baseline values for conservation factors, however, are not required, since demand factors for many of the landscaped features, such as parks, will not change from the existing values – with the exception of commercial land-uses. The landscape-dominant demand factors are affected primarily by climatic conditions that drive plant evapotranspiration. In other words, an acre of turf at a park will still use the same amount of water in the new parks as the existing parks. Commercial land-uses, however, are adjusted downward slightly to reflect the CAL Green Code and likely modifications to landscape designs (compared to existing establishments) to limit outdoor water use. Schools are kept consistent

[16] *The water demand is one dimensional and total demand is dependent on area. For the purposes of this WSA, acres are used for the second dimension. Therefore, one acre-foot of water is multiplied by each acre of vineyard. The result is 1 acre-foot/acre which is used in this documents calculations*

[17] Tchobanoglous, George, and Edward Schroeder. *Water Quality*. Menlo Park: Addison Wesley Longman, 1987

with the existing demand factor, since the data is based on the average of several schools and the exact configuration and number of students at the proposed schools is not fully defined. **Table 2-2** summarizes the non-residential demand factors used in this WSA.

Table 2-2 – Summary of Non-Residential Demand Factors

Land Use	Current Factor (af/ac)	Conservation % Applied	Factor Used (af/ac)
Office Park/Commercial	2.00	3%	1.94
Parks	2.77	0%	2.77
Schools	1.43	0%	1.43
ROW Landscaping	3.30	0%	3.30
Open Space	0.00	0%	0.00

2.7 Proposed Project Water Demand Projection

Combining the Proposed Project's land-use details and phasing as summarized in **Table 1-1** and **Table 1-2** with the demand factors presented in **Table 2-1** and **Table 2-2**, the water demands for the project from initiation to build-out are estimated. At completion, the Proposed Project is estimated to need 1,927 acre-feet of water annually (prior to considerations of non-revenue water, described in the next subsection) as shown in **Table 2-3**.

2.7.1 Non-Revenue Water Demands

The demand factors presented earlier in this section represent the demand for water at the customer's meter for each category. To fully represent the demand on EID's water resources, non-revenue water also needs to be included. Non-revenue water represents all of the water necessary to deliver to the customer accounts and reflects distribution system leaks, water demands from potentially un-metered uses such as fire protection, hydrant flushing, and unauthorized connections, and inescapable inaccuracies in meter readings.[18] In most instances, the predominant source of non-revenue water is from system leaks – the loss from fittings and connections from EID's water sources through treatment plants, tanks, pumping plants, major delivery system back-bone pipelines, and community distribution systems. Because a significant portion of the delivery system used to bring water to the Proposed Project already exists, the benefits of new piping within the Proposed Project has limited effect on the overall percentage of non-revenue water necessary to operate the system.

[18] The American Water Works Association and the California Urban Water Conservation Council recognize the inherent non-revenue water that is either lost or mis-accounted in urban treated water distribution systems and suggest purveyors strive for a value of 10% of all delivered water. Obtaining this value is dependent on numerous factors including the age and extent of distribution system infrastructure, meter rehabilitation programs, and how a purveyor accounts for actions such as fire flows and hydrant flushing.

Although EID has an established program for identifying and accounting for most unbilled and other system losses, there are still pipeline leaks, unmetered uses, unauthorized connections, meter inaccuracies, and other losses that are difficult to specifically quantify. Consistent with the District's methodology for calculating future water meter availability, as defined in the *2012 Water Resources and Service Reliability Report,* non-revenue water is projected at a fixed rate of 13 percent. Non-revenue demand is estimated to add 250 acre-feet per year at build-out to the Proposed Project's land-use demands, bringing the estimated build-out water demand attributed to the Proposed Project to 2,177 acre-feet annually (see **Table 2-3**).

2.7.2 Recycled Water Demand

A portion of the Proposed Project's demands (see Figure 1-1) could be met with recycled water provided by EID (see Section 4.3). As previously noted, other than the high-density multi-family units, residential potable demands require about 0.18 acre-feet annually per household. The remaining portion of the unit demand factor for each type of residential lot could be met with recycled water (see **Table 2.1** for unit demand factors). For the high-density residential units, the potable water requirement is lower due to fewer customers per unit on average when compared to other housing types. Using these unit water demand assumptions, coupled with the number of residential units, the Proposed Project could meet approximately 937 acre-feet of the 1,510 acre-feet of residential water demand with recycled water – prior to consideration of non-revenue water demands.

Non-residential components of the Proposed Project could also be met with recycled water, especially the parks, vineyards and lake supplementation. Removing the small potable demands for parks and the limited commercial properties, the Proposed Project could meet 355 acre-feet of the 417 acre-feet of total non-residential demand with recycled water – prior to the consideration of non-revenue water demands. Combined, recycled water could serve approximately 1,292 acre-feet of the Proposed Project's demand (see **Table 2-4**).

Table 2-4 – Estimated Demand Met with Recycled Water

	Demand (af/yr)		
	Residential	Non-Res	Total
Potable	572	62	635
Recycled	937	355	1,292
Total Demand	**1,510**	**417**	**1,927**

Table 2-3 – Estimated Proposed Project Water Demands from Start-up to Build-out

	Unit Count or Acreage						Demand Factor (af/du or af/ac)						Demand (af/yr)					
Category	Current	2015	2020	2025	2030	2035	Current	2015	2020	2025	2030	2035	Current	2015	2020	2025	2030	2035
Residential																		
1 Acre Custom Homes	0	0	25	45	145	193	1.16	1.04	1.04	1.04	1.04	1.04	0	0	26	47	152	202
1/2 Acre Custom Homes	0	0	25	50	50	125	0.87	0.80	0.80	0.80	0.80	0.80	0	0	20	40	40	100
8,000-10,000 sf Lots	0	0	215	593	593	982	0.55	0.53	0.53	0.53	0.53	0.53	0	0	113	312	312	517
5,000-7,000 sf Lots	0	0	0	0	663	663	0.50	0.48	0.48	0.48	0.48	0.48	0	0	0	0	315	315
Condominiums/Town Homes	0	0	75	597	772	772	0.40	0.38	0.38	0.38	0.38	0.38	0	0	29	228	295	295
Multi-Family Housing	0	0	209	259	487	501	0.16	0.16	0.16	0.16	0.16	0.16	0	0	34	42	79	81
												Subtotal	0	0	222	669	1,192	1,510
Commercial																		
Office Park/Commercial	0	0	0	12	27	58	2.00	1.94	1.94	1.94	1.94	1.94	0	0	0	22	52	112
Schools	0	0	0	0	19	35	1.43	1.43	1.43	1.43	1.43	1.43	0	0	0	0	28	50
Gate House	0	0	1	1	1	1	0.10	0.10	0.10	0.10	0.10	0.10	0	0	0	0	0	0
												Subtotal	0	0	0	23	80	162
Public																		
Parks	0	5	13	14	22	22	2.77	2.77	2.77	2.77	2.77	2.77	0	14	37	40	60	60
Open Space	0	1,282	1,282	1,282	1,282	1,282	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
Lake	0	0	1	1	1	1	85.00	85.00	85.00	85.00	85.00	85.00	0	0	85	85	85	85
Vineyards Phase 1	0	0	18	18	18	18	0.00	0.00	2.00	1.00	1.00	1.00	0	0	35	18	18	18
Vineyards Phase 2	0	0	0	13	13	13	0.00	0.00	0.00	2.00	1.00	1.00	0	0	0	26	13	13
Vineyards Phase 3	0	0	0	0	10	10	0.00	0.00	0.00	0.00	2.00	1.00	0	0	0	0	20	10
Vineyards Phase 4	0	0	0	0	0	14	0.00	0.00	0.00	0.00	0.00	2.00	0	0	0	0	0	28
Lift Stations	0	0	2	2	2	2	2.50	2.50	2.50	2.50	2.50	2.50	0	0	5	5	5	5
												Subtotal	0	14	162	173	201	219
Other																		
ROW & landscape lots	0	0	6	11	11	11	3.30	3.30	3.30	3.30	3.30	3.30	0	0	18	36	36	36
Mitigation Demands	0	100	225	225	125	0	1.00	1.00	1.00	1.00	1.00	1.00	0	100	225	225	125	0
Construction Water	0	2	2	2	2	0	5.50	5.50	5.50	5.50	5.50	5.50	0	11	11	11	11	0
												Subtotal	0	111	254	272	172	36
												Total Water Demand	**0**	**125**	**638**	**1,137**	**1,646**	**1,927**
												Non-Revenue Demand at 13%	0	16	83	148	214	250
												Total Proposed Project Demand	**0**	**141**	**721**	**1,285**	**1,860**	**2,177**

SECTION 3 – OTHER ESTIMATED WATER DEMANDS

3.1 INTRODUCTION

As stated in this excerpt from Water Code Section 10910(b)(3): *"[T]he water supply assessment for the project shall include a discussion with regard to whether the public water system's total projected water supplies available…will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses…"* This section details EID's other "existing and planned future uses." For purposes of this WSA, existing and planned future uses are subdivided into the following:

- **Other Currently Proposed Projects** – in addition to the Proposed Project, El Dorado County (County) is the Lead Agency (pursuant to CEQA) for four additional proposed development projects. As Lead Agency, the County has requested separate WSAs from EID for each of these other projects. Because detailed land-use information is available for three of the four projects and separate WSAs are being developed for these three in parallel to this WSA, each of these three projects have unique water demand estimates that are included in this WSA.[19]

- **All Other Existing and Planned Future Uses –** in addition to the Proposed Project and the Other Currently Proposed Projects, existing customers and anticipated growth in the County must be quantified. The subdivisions of this category are:

    - **Current Customers and Uses** – using 2012 as a baseline condition, this category reflects the current range of EID's potable and recycled water customers. Because these customers and uses already exist, keeping them separate from planned future uses allows an analysis to reflect anticipated reductions in use over time as EID continues to implement its urban water conservation programs targeted at many of the existing customers.[20]

    - **Adjusted General Plan Update Land Use Growth** – in addition to the identified development projects currently undergoing County CEQA review, the County's 2004 General Plan Update (GPU) anticipates continued urban growth throughout the EID service area. This growth is accounted for in the EID 2013 *Integrated*

[19] EID understands the fourth project, San Stino, to be undergoing changes to its land-use plans at the time of drafting this WSA. Lacking the details needed to determine water demands similar to the other WSAs currently being completed, the San Stino project is reflected in the next subgroup of demands (see Section 3.3).

[20] New customers added to EID's system will have lower demand factors, as discussed in Section 2, and will be less likely to implement additional conservation or see much reduction when changes are made. For instance, many existing customers may still have 3 gallon per flush toilets or even 1.6 gallon per flush toilets, which when replaced, will likely only use 1.28 gallons. New houses will be constructed, per the CAL Green Code, with 1.28 gallon per flush toilets. EID has had conservation and incentives programs for more than 20 years.

Water Resources Master Plan (2013 IWRMP) and serves as the primary water demand driver into the future. Adjustments to anticipated GPU growth to reflect the "Other Currently Proposed Projects" and other proposed land-use changes, however, must be made. The adjustments discussed under this category include: (1) potential changes in the 2004 General Plan land use designations as identified in Facility Improvement Letters received and analyzed by EID; and (2) the removal of the Proposed Project and other proposed project uses being developed under concurrent WSAs.

- **Other Authorized Uses** – EID does not anticipate increases above 2012 levels in other authorized potable water uses such as fire flows, meter testing, water quality flushing, and ditch system operations. Demands for this category of water use is removed from the general plan growth and included separately.

- **Non-Revenue Water** – As discussed in Section 2.7.1, an additional demand is seen by EID to treat and deliver water to all customers. Referred to as non-revenue water, this water demand represents a 13 percent increase added to estimated customer demands. This value represents a long-term average experienced by EID.

3.2 OTHER CURRENTLY PROPOSED PROJECTS

As mentioned in the previous section, El Dorado County is the Lead CEQA Agency for four additional proposed development projects and has requested EID to prepare WSA's for each development concurrent with this Proposed Project WSA. EID is currently drafting three of these four WSAs.[21] The estimate of water demand for each WSA follows the same methods used in Section 2 of this WSA, with specific unit demand factors applied to each unique land use element. The other projects are:

- Central El Dorado Hills – located along El Dorado Hills Blvd north of Hwy 50, this projects is a planned infill mixed development with primarily residential units and some commercial space.
- Lime Rock Valley Specific Plan – located adjacent to the Village of Marble Valley, this development is a planned residential community with a variety of lot sizes and housing types.
- Dixon Ranch Residential Project – located northeast of the Proposed Project, this development is a planned residential community with a range of lot sizes and housing types, including a number of "age-restricted" units, accompanied by a community club house, parks, ponds, and trails.

[21] EID understands that the San Stino development project is undergoing changes to the land-use plans previously submitted to the County. Therefore, EID has not begun the WSA for that project.

Based on the detailed analysis completed in the other WSAs, these "Other Currently Proposed Projects" represent approximately 1,330 acre-feet per year of new demand by 2035. **Table 3-1**, presented later in this section, summarizes the estimated water demands as determined and detailed in the concurrent WSAs for each unique project. The values shown are the estimated customer and use demands and do not include the additional water associated with non-revenue percentages attributable to the treatment and distribution for each project (see Section 3.5).

3.3 ALL OTHER EXISTING AND PLANNED FUTURE USES

In simple terms, this category of use would typically reflect all the other water demands anticipated by EID that are in addition to the Proposed Project. However, because of the unique circumstance that other WSAs are concurrently being drafted by EID, this category must be adjusted to remove those other well-defined water demands. Furthermore, because other potential changes to the 2004 GPU have been brought to EID's attention, and EID anticipates changes to current customer uses, a more detailed assessment of future demands is warranted. This subsection describes:

- Current Customers and Uses
- Adjusted GPU Land Use Growth
- Other Authorized Uses

3.3.1 Current Customers and Uses

Current customers and uses in the contiguous EID service area provide a baseline from which to assess additional demand from the Proposed Project and other potential planned uses. For purposes of the WSA, the deliveries to current customers in 2012 were used to define this baseline. Based on the 2012 EID *Water Diversion Report*, EID diverted 36,580 acre-feet into its potable water system. In addition to the potable water, EID served 2,404 acre-feet of recycled water to meet customer demands.[22] Combined, the current water demand is represented as 38,984 acre-feet. This value includes the non-revenue water (see Section 2.7.1), including system losses, necessary to deliver these supplies from their respective treatment plants to the customer meter. This value also includes 1,269 acre-feet sold to the City of Placerville.[23]

Since the WSA uses 2012 as a baseline, the "current" demand varies from that used in the recently adopted 2013 IWRMP, which used the year 2008 for its baseline.[24] Given on-going conservation efforts, adoption of new rate structures, and other drivers, EID has seen an overall decrease in the annual customer use since the IWRMP selected its baseline. Therefore the 2012

[22] See EID 2013 Water Resources and Reliability Report (Table 14)
[23] See EID Consumption Report: Reporting Year 2012 (Table on p. 7)
[24] The IWRMP, adopted by the EID Board in March 2013, began several years ago and at the time used 2008 as a baseline. Since that time, EID's annual diversions have dropped from a high in 2008 of about 45,000 acre-feet to 35,678, 33,453, and 36,580 in 2010, 2011, and 2012, respectively. Combined with recycled water deliveries, the 2012 demand is lower than that used for the 2013 IWRMP, but greater than 2010 and 2011.

baseline used for this WSA is more representative of the baseline use expected into the future from these existing customers and uses.

A slight adjustment to this baseline is necessary, however, to project it into the future. Although this demand will remain relatively constant since it does not add any new uses (additional uses are discussed in the next subsections), a slight decrease is assumed that reflects on-going implementation of conservation and installation of new water-using fixtures by existing customers. EID's continued leadership in conservation will enable existing customers to retrofit toilets, receive appliance rebates for new household items such as dishwashers, water heaters and clothes washers, and implement irrigation efficiency improvements through various incentives. Additional reductions in existing customer demands will also occur simply as a result of the natural replacement of old fixtures and appliances with lower water-use devices. For purposes of the WSA, EID estimates the reduction in current customer demand will be approximately 2% by 2020 and an additional 1% by 2035. This is consistent with EID's expectations necessary to meet its per-capita water use targets as detailed in the 2010 Urban Water Management Plan.[25]

3.3.2 Adjusted GPU Land Use Growth

In the 2004 GPU, the County made growth projections using land-use zoning throughout the County. Within the contiguous EID water service area, the GPU land-use zoning correlates to EID defined unit water demand factors. During preparation of the recently adopted 2013 IWRMP, EID used GIS-based land-use designations, combined with the water demand factors, to develop estimated growth in water demand. Absent any changes to the 2004 GPU land-use designations, the 2013 IWRMP demand projections would provide a valid representation of future water needs. However, because several proposed changes to the GPU land-use designations have been submitted – both through the County's formal process, such as is the situation with the Proposed Project and Other Planned Projects, and through an EID process explained below – the 2013 IWRMP demand projections require refinement. The steps to adjust these demands included:

- Removal of Proposed Project and Other Planned Projects water demands
- Modifying land-use zoning based on Facility Improvement Letters
- Determining Growth to Year 2035

Once these steps were completed, the analysis reassessed the water demand using the water demand factors applied in the 2013 IWRMP.

Step 1: Removal of Proposed Project and Other Planned Project Water Demands

The first step in adjusting the water demands was to remove the detailed water demands estimated in this WSA for the Proposed Project and for the Other Planned Projects (see

[25] See Section 3 of the 2010 UWMP available here: http://www.eid.org/modules/showdocument.aspx?documentid=338

Section 2 and Section 3.2). This step involved removing the specific acreage and water demand factors from the 2013 IWRMP analysis. The 2004 GPU included land-use zoning for the lands underlying the Proposed Project as well as the Other Planned Projects. In the 2013 IWRMP, water demands were estimated using the existing zoning. Removing these land uses eliminates the potential to double-count the associated acreage when assessing the remaining GPU expected growth.

Step 2: Modifying Land-use Zoning based on FILs

When investigating water service from EID for development projects (e.g. lot splits, land use changes, and new service to existing parcels), existing landowners submit a Facilities Improvement Letter (FIL). This document allows EID to assess whether infrastructure or supplies are available to serve the proposed project. In some instances, the FILs include proposed land-use zoning changes not previously incorporated into EID water demand projections. By using GIS to map the locations of the FILs requesting a change in land-use zoning, EID was able to identify where changes to the 2013 IWRMP demand estimates would occur. About 25 specific FILs were identified as having land-use designation changes. These identified parcels were removed from the prior analysis to eliminate potential double counting of demands.

In a separate analysis, the water demand for this subset of parcels was recalculated using the appropriate water demand factor for the new proposed land-use classification (e.g. water needs for these parcels may have previously been calculated based on very-low density housing, but is requesting a change to higher density housing). Through the analysis, an increased demand of approximately 3,000 acre-feet over the 2013 IWRMP projections was identified.

Step 3: Determining Growth to 2035

The GPU identifies anticipated build-out conditions for the County and, as a subset, for the EID contiguous water service area. Since this WSA assesses water demands in 5-year increments only to 2035 – well short of the anticipated timing of the County's build-out – the amount of build-out growth occurring by 2035 must be determined. This was done for both the parcels identified with new land-use zoning through the FIL analysis, and for the remaining parcels with original GPU land-use designations.

Because there is little detail about planned development rates for the FIL-related parcels, this WSA assumed that these parcels would have full water demand usage by 2035.[26] This is a conservative estimate, since some of these lands may not develop by 2035 or may never

[26] This assumption also considers that a landowner would likely only submit a FIL to EID if they are seriously contemplating the development activity. Thus, there is a higher likelihood that these parcels will develop at a faster rate than other generally anticipated growth for the remaining parcels in the GPU.

develop. Thus, the estimated increase in demand of approximately 3,000 acre-feet was assumed to occur by 2035 with the 2013 IWRMP growth rate applied.

For the remaining parcels, growth rates used to determine the degree of development were based on EID's 2013 IWRMP. In the 2013 IWRMP, growth rates for the El Dorado Hills, and Western/Eastern water service areas were identified for specific year-ranges.[27] This WSA uses those growth rates for the remaining parcels. Using the 2013 IWRMP growth rates, the analysis determined build-out for the El Dorado and Western/Eastern service areas occurs after 2035.

During this adjustment, special attention was provided to the City of Placerville. The City purchases potable water from EID for distribution to its residents. The 2013 IWRMP projected future water demands for the City based on the City's existing General Plan. This WSA assumes the same rate of growth and build-out demand as the 2013 IWRMP for the City.

Upon completion of these steps, the adjusted demand for the GPU land uses was determined. **Table 3-1** summarizes the anticipated increase in water demand during each 5-year increment as a result of these adjustments to the GPU land-uses.

3.3.3 Other Authorized Uses

In addition to the sale of water to metered customers, EID has a set of water demands it refers to as "Other Authorized Uses." This designation is for the following existing uses:

- Knolls Reservoir Assessment District
- Private Fire Services
- Temporary Water Use Permit
- Bulk Water Stations - Permanent
- Bulk Water Stations - Temporary
- Lift Stations
- Collection System Flushing
- Spills, Overflows, and Flushing
- Clear Creek Aesthetics Flow Maintenance District

Of these, the Clear Creek aesthetic flows comprise over 80 percent of the annual authorized uses. Lift stations and temporary use permits comprise another 10 percent. The current demand of approximately 2,200 acre-feet is already reflected in the "Current Customers and Uses." EID anticipates no growth in these authorized water uses, with the total demand to remain constant at 2,200 acre-feet through 2035.

[27] EID Integrated Water Resources Master Plan, adopted March 2013 (Table 9-2).

3.4 NON-REVENUE WATER DEMANDS

The subtotal values in **Table 3-1** represent the demand for water at the customer's meter for each category. To fully represent the demand placed on EID's water resources, non-revenue water also needs to be included. Non-revenue water represents all of the water necessary to deliver to the meter and reflects distribution system leaks, water demands from potentially un-metered uses of fire protection, fire hydrant flushing, and unauthorized connections, and inescapable inaccuracies in meter readings.[28] In most instances, the predominant source of non-revenue water is from system losses – the loss from fittings and connections from the District's water sources through treatment plants, tanks, pumping plants, major delivery system back-bone pipelines, and community distribution systems.

Although the District has an established program for identifying and accounting for most unbilled and other system losses, there are still pipeline leaks, unmetered uses, unauthorized connections, meter inaccuracies, and other losses that are difficult to specifically quantify. Consistent with the District's methodology for calculating future water meter availability, as defined in the *2012 Water Resources and Service Reliability Report,* non-revenue water is projected at a fixed rate of 13 percent.

As shown in **Table 3-1**, non-revenue demand for Existing and Planned Future Uses is estimated to be about 7,500 acre-feet per year by 2035.

3.5 ESTIMATED EXISTING AND PLANNED FUTURE USES

Combining the estimated water demand for Other Currently Planned Projects (see Section 3.2 with the All Other Existing and Planned Future Uses demand (Current Customers and Uses plus the Adjusted GPU Land Use values), the total estimated demand during each 5-year increment to 2035 is derived (see subtotal water demand in **Table 3-1)**.

[28] See footnote 14

Table 3-1 – All Other Existing and Planned Future Uses

Category	Estimated Demand (af/yr)					
	Current	2015	2020	2025	2030	2035
Other Currently Proposed Projects	0	163	696	1,052	1,272	1,332
Current Customers and Uses [1]	38,984	34,154	33,809	33,694	33,579	33,464
Adjusted GPU Land Use [2]	0	514	2,853	7,975	14,718	22,830
Subtotal Water Demand	**38,984**	**34,831**	**37,359**	**42,721**	**49,570**	**57,627**
	Current	**2015**	**2020**	**2025**	**2030**	**2035**
Non-Revenue Water at 13%	--	4,528	4,857	5,554	6,444	7,491
Total Water Demand	**38,984**	**39,359**	**42,216**	**48,275**	**56,014**	**65,117**

1. The "Current Customers and Uses" demand value includes the "Other Authorized Uses." The Value is greater under the "Current" condition because "Non-Revenue Water" is included in the current year. All other years will have "non-revenue water" added on a separate line. A 3% conservation decrease occurs by 2035.
2. "Adjusted GPU Land Use" reflects changes to the 2004 GPU as determined by FILs submitted to EID. This value also does NOT include the other proposed projects currently undergoing County CEQA review.

3.6 TOTAL ESTIMATED DEMAND

The other existing and planned future water demands described in this section represent the total demands anticipated *in addition to* the water demands of the Proposed Project. Combining the estimated Proposed Project water demands of 2,177 acre-feet annually (see **Table 2-3**) with the estimated Existing and Planned Future water demands of approximately 65,000 acre-feet annually (see **Table 3-1**), a total estimated demand for EID water supplies by 2035 is determined. Estimated existing and planned future water demands, inclusive of non-revenue water needs, for each 5-year increment to 2035 are presented in **Table 3-2**. The estimated demand for EID Water supplies is 67,295 acre-feet annually.

Table 3-2 – Total Estimated Water Demands

Category	Estimated Demand (af/yr)					
	Current	2015	2020	2025	2030	2035
Proposed Project	0	141	721	1,285	1,860	2,177
Existing and Planned Future Uses	38,984	39,359	42,216	48,275	56,014	65,117
Total Water Demand	**38,984**	**39,500**	**42,937**	**49,560**	**57,874**	**67,295**

Of note is that the estimated water demand for 2035 presented in **Table 3-2** fits within the range of total demands presented in Table 9-1 of the 2013 IWRMP (estimated to be between 61,262 acre-feet and 77,315 acre-feet). The primary differences is that the 2013 IWRMP used 2008 as a baseline demand, which is substantially higher than EID has seen in the last several years. This WSA uses 2012 as a baseline. The 2008 value was approximately 45,000 acre-feet, while the 2012 value is 38,984 – or about 39,000 acre-feet. This represents a difference of about 6,000 acre-feet. Starting from a different baseline quantity and year, and then applying the 2013 IWRMP growth rates, results in a different estimated total demand when reaching 2035.

SECTION 4 – WATER SUPPLY CHARACTERIZATION

4.1 INTRODUCTION

This section explains the intended water supply that EID will use to serve the Proposed Project.[29] EID will meet the Proposed Project's water demands by utilizing water assets derived from its existing sources as well as through future asset acquisition efforts with El Dorado County Water Agency. This section details the Proposed Project's available water supplies and entitlements as well as its planned water supplies and entitlements in both normal water years and dry water years. The Proposed Project exists completely in El Dorado Irrigation District's contiguous water service area (see **Figure 4-1**) and may be served with both treated water and recycled water.[30]

El Dorado Irrigation District maintains two primary interconnected water systems in its contiguous service area: the El Dorado Hills system and the Western/Eastern system, along with a separate recycled water system. The El Dorado Hills water system obtains its primary supplies under rights and entitlements from Folsom Reservoir. The Western/Eastern system derives its supplies from sources under rights and entitlements emanating from further up the American River watershed and the Cosumnes River watershed. The recycled water system serves treated wastewater from the El Dorado Hills wastewater treatment plant and the Deer Creek wastewater treatment plant.

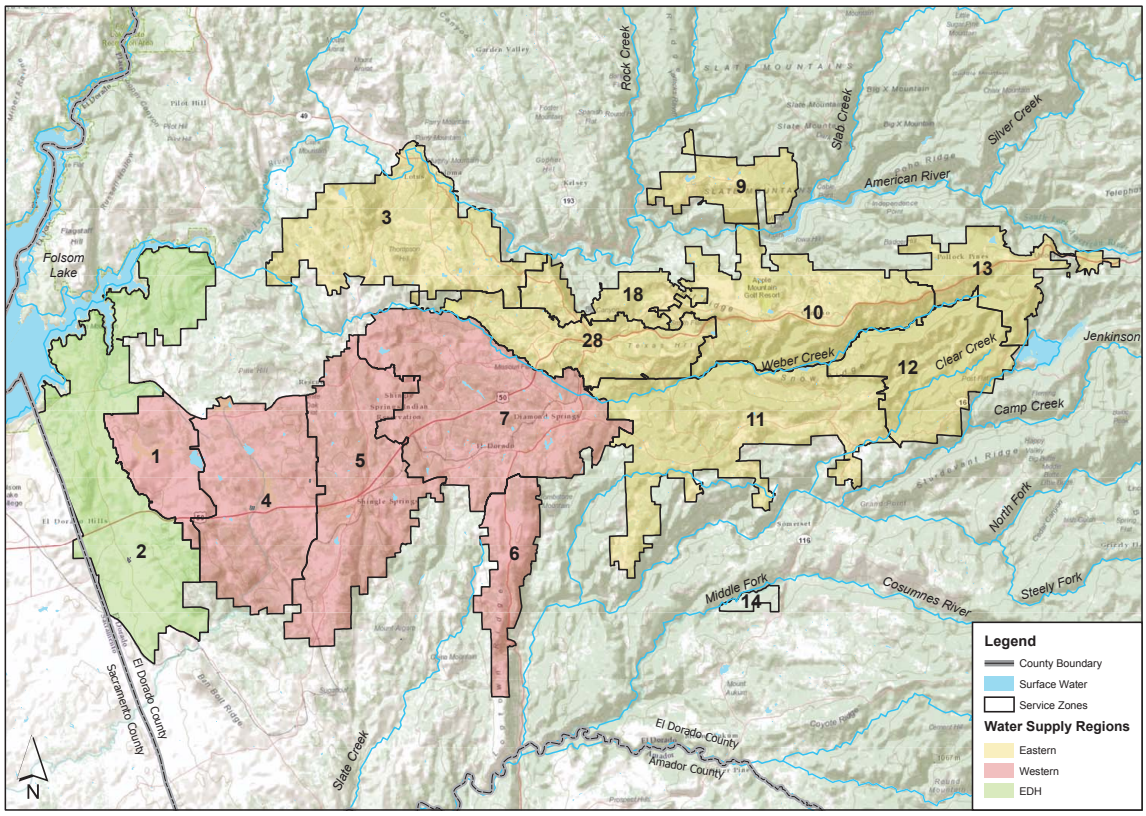
The water assets can be further categorized by the service area they primarily serve and the treatment plant they flow through. Water derived from Folsom Reservoir is delivered to the El Dorado Hills water treatment plant and serves the El Dorado Hills area. Water derived from upstream American River watershed diversions and storage reservoirs generally use the Reservoir 1 Water Treatment Plant while the Cosumnes River diversions use Reservoir A Water Treatment Plant to serve the Western/Eastern area. Water assets from these upstream diversions can be delivered by gravity feed to the El Dorado Hills area, but assets from Folsom Reservoir are not delivered outside the El Dorado Hills area due to infrastructure limitations. The following subsections describe these water supplies and delivery mechanics in more detail.

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[29] CWC § 10910(d)(1) requires that "The assessment… include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years by the public water system…under existing water supply entitlements, water rights, or water service contracts. (2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system…shall be demonstrated by providing information related to all of the following: (A) Written contracts or other proof of entitlement to an identified water supply. (B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system. (C) Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply. (D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply."

[30] EID also has surface water assets that it serves to two non-contiguous areas as well as raw water assets that are used for agricultural purposes. These water assets are irrelevant to the Proposed Project contemplated in this Water Supply Assessment and are, therefore, not analyzed.

Figure 4-1 – El Dorado Irrigation District Service Area
(from Figure 8-7, Integrated Water Resources Master Plan, EID, March 2013)



4.2 TREATED WATER SUPPLIES

EID's treated water supplies identified for the Proposed Project are derived from a number of water rights and entitlements as detailed in **Table 4-1**. The maximum available water assets column in **Table 4-1** does not account for other hydrological, technical, regulatory, and contractual limitations that apply to the water assets for normal year and dry year deliveries. These issues are addressed in the other two columns in the table. EID's water assets available for the Proposed Project include water rights and entitlements that EID currently has in its possession and planned water rights and entitlements that it will control in the future.

4.2.1 Water Rights and Entitlements Description

Generally, EID's water assets are derived from pre-1914 appropriative water rights, licensed and permitted appropriative water rights, Central Valley Project (CVP) contracts, Warren Act contracts (that allow non-federal water assets to be wheeled through the federal storage and conveyance facilities), and recycled water generated from the effluent treated at the District's two wastewater treatment plants. The District's counsel has recently confirmed all of these water rights and entitlements. Pertinent information regarding these water assets is included in **Appendix A** of this document as required by Water Code section 10910(d).

Water for the Proposed Project will be derived from both Folsom Reservoir and upstream American River and Cosumnes River diversions. As shown in **Table 4-1**, the primary water assets for diversion at Folsom Reservoir are: CVP Contract 14-06-200-1375A-LTR1, and License 2184 and several pre-1914 water rights incorporated into Warren Act contract 06-WC-20-3315. EID is seeking to finalize its Warren Act contract for diversions of Permit 21112 at Folsom Reservoir. EID also has additional water assets under the El Dorado – SMUD Cooperation Agreement and a Central Valley Project water entitlement derived from El Dorado County Water Agency's Fazio water supply. These water assets will be described in **Section 4.2.2**.

Table 4-1 – Water Rights, Entitlements, and Supply Availability

Water Right or Entitlement	Maximum Water Assets Available (Ac-ft)	Normal Year Planned Supply Availability (Ac-ft)	Dry-Year Planned Supply Availability (Ac-ft)
License 2184 and pre-1914 ditch rights including Warren Act Contract 06-WC-20-3315	4,560	4,560	3,000
Licenses 11835 and 11836	33,400	23,000	20,920[A]
CVP Contract 14-06-200-1375A-LTR1	7,550	7,550	5,660
Pre-1914 American River diversion and storage rights	15,080	15,080	15,080
Permit 21112	17,000	17,000	17,000
Subtotal Existing	**77,590**	**67,190**	**61,660**
Central Valley Project Fazio water entitlement (PL 101-514 (1990) Fazio) [D]	7,500	7,500	5,625
Applications 5645X12, 5644X02 and partial assignment of Applications 5645, 5644 with El Dorado-SMUD Cooperation Agreement [E]	40,000[B]	30,000	5,000[C]
Subtotal Planned	**47,500**	**37,500**	**10,625**
Recycled Water	5,600	5,600	5,600
Total	**130,690**	**110,290**	**77,885**

[A] This is the modeled safe-yield of this water right during a single dry-year. For planning purposes, the second and third dry years of a three-year dry period are assumed to be 17,000 acre-feet, and 15,500 acre-feet, respectfully
[B] Section 5.1.1 of the El-Dorado SMUD Cooperation Agreement indicates that 40,000 acre-feet of SMUD water will be available after 2025. For conservative Normal Year planning purposes, the District uses 30,000 acre-feet of available supply.
[C] Available supply is 15,000 acre-feet in a single dry year but in preparing for multiple dry years EID anticipates using only 5,000 acre-feet per year for a three year period.
[D] Available starting in 2015
[E] Available starting in 2025

License 2184 and Pre-1914 Water Rights

Water rights associated with Weber Dam, Weber Creek (Farmer's Free Ditch), Slab Creek (Summerfield Ditch), and Hangtown Creek (Gold Hill Ditch) are available to be diverted at Folsom Reservoir under a long-term Warren Act Contract, with approximately 4,560 acre-feet available each year from these sources. A Warren Act Contract allows the use of federal facilities to take non-CVP water such as these supplies. The 40-year contract commenced on March 1, 2011 and has a maximum net contract amount of 4,560 acre-feet per year. The contract

total also assumes a 15% conveyance loss between the former points of diversion and Folsom Reservoir, which can be adjusted at a later date by mutual agreement without amending the contract. The annual water diversion season is limited to April through November 15 and the water must be used for municipal and industrial purposes in the El Dorado Hills and Cameron Park areas.

Licenses 11835 and 11836

Licenses 11835 and 11836 allow for 33,400 acre-feet of diversion in EID's upstream system in the Cosumnes River watershed. These diversions are stored in Jenkinson Lake, the largest storage reservoir in EID, formed by two earth and rock dams across Sly Park Creek near Pollock Pines with a maximum capacity of 41,033 acre-feet. The dam was constructed as a portion of the United States Bureau of Reclamation (USBR) CVP in 1955. With the transfer of ownership from the USBR of the Sly Park dam and associated lands and facilities in 2003, EID not only operates and maintains the Jenkinson Lake and Sly Park Dam facilities, including recreational aspects, but also holds the water rights. The average annual use from this facility is approximately 23,000 acre-feet, though EID's annual water right is for 33,400 acre-feet of total beneficial use. This water supply is used entirely within EID's contiguous service area. Under average flow conditions, Jenkinson Lake is operated to maintain 14,000 to 18,000 acre-feet of carryover storage each year. The outlet works at Sly Park Dam have a maximum capacity of 125 cfs. Water is released to the Reservoir A Water Treatment Plant for subsequent treatment, transmission, and distribution.

Jenkinson Lake contributes approximately 20,920 acre-feet per year to EID's system firm yield. Over the past five years, EID's annual diversions from Jenkinson Lake have averaged approximately 22,600 acre-feet per year. EID's maximum and minimum diversions from this particular water source during this five-year period were 25,745 and 20,800 acre-feet per year, respectively.

USBR CVP Contract 14-06-200-1375A-LTR1

Surface water from Folsom Reservoir is provided to the El Dorado Hills area. By contract with the USBR for Folsom Reservoir water, EID is entitled to 7,550 acre-feet per year. The contract includes provisions for use in a particular area that generally encompasses the El Dorado Hills and Cameron Park areas. Folsom Reservoir is operated by the USBR as part of the CVP, a multipurpose project that provides flood control, hydroelectricity, drinking water, and water for irrigation.

The El Dorado Hills County Water District entered into a USBR Contract in 1964 for water supply from Folsom Reservoir. The contract had a not-to-exceed limit of 37,600 acre-feet per year. When EID annexed the El Dorado Hills County Water District in 1973, the contract was assigned to EID, and subsequently, in 1979, an amendatory contract replaced the original 1964 contract and reduced the maximum annual supply quantity of Folsom Reservoir water to 6,500

acre-feet per year. In 1983, the USBR increased the maximum annual supply quantity from 6,500 to 7,500 acre-feet per year. EID also annexed and succeeded to a USBR Contract for 50 acre-feet per year to supply the Lakehills area in El Dorado Hills. In 2006, these two contracts were consolidated into a single 40-year USBR Contract with a maximum quantity of 7,550 acre-feet per year.

Pre-1914 South Fork American River and Project 184

EID acquired Project 184 from Pacific Gas and Electric (PG&E) in 1999. Project 184 includes reservoirs and associated dams, 22 miles of canals, a 21 Mw powerhouse, and other ancillary facilities. Prior to the transfer of ownership and water rights, EID held a contract to purchase water from PG&E and its predecessor, Western States Gas and Electric Co. The original water rights claims date back to 1856, with additional claims being filed in the 1860s and 1870s. The water rights for diversions from Echo Lake were established in 1880 in a California Supreme Court decision. Then, in 1918, the California Railroad Commission (predecessor to the California Public Utilities Commission) recognized the use of water from the El Dorado Canal for irrigation and domestic purposes.

The sources of this water supply include natural flows in the South Fork American River and its tributaries, and stored water in Silver, Aloha, Echo, and Caples Lakes. The supply is diverted from the South Fork American River at Kyburz and is conveyed via the El Dorado Canal to the El Dorado Forebay. Some additional water is obtained by diversions into the El Dorado Canal from streams tributary to the South Fork American River. EID takes consumptive use of the water supply at the Main Ditch Intake, located at the El Dorado Forebay. This particular supply contributes 15,080 acre-feet per year to EID's system firm yield.

Water diversions of up to 156 cfs can be made from the South Fork American River at the diversion dam. In addition to these direct diversion rights, EID also has pre-1914 diversion and storage rights associated with portions of the waters stored in Silver Lake, Caples Lake, and Lake Aloha and all of the waters stored in Echo Lake.

El Dorado Forebay is filled by the surface water supply from the Project 184 facilities upstream in the South Fork American River basin and at Echo Lake. EID has a consumptive water entitlement of 15,080 acre-feet per year delivery at the Forebay. The entitlement is a pre-1914 water right, and diversions are made in compliance with the 40-year Federal Energy Regulatory Commission Project 184 operating license issued to EID in October 2006. Because the full entitlement can be provided in all years including the most severe historic single dry year of 1977, this source of water is considered assured, and not subject to shortage from hydrologic droughts.

Permit 21112 and Warren Act Contract

The State Water Resources Control Board (SWRCB) issued EID a water right permit in 2001 for an additional 17,000 acre-feet per year of water supply associated with Project 184 facilities and

power operations to be taken at Folsom Reservoir. This water supply was authorized under Permit 21112 for diversion and consumptive use anywhere within EID's contiguous service area. There are no cutback provisions on this supply.

The El Dorado County Water Agency (EDCWA) and EID applied to the SWRCB to obtain water rights for consumptive use of waters previously stored and released for power generation from Caples, Silver, and Aloha Lakes, as well as certain direct diversions from the South Fork American River, all of which have been used by Project 184 for hydroelectric power generation or instream flows. The EDCWA later assigned all of its rights under this application to EID. The SWRCB granted the right to appropriate 17,000 acre-feet per year of water. Permit 21112 allows EID to make direct diversions from the South Fork American River at Folsom Reservoir; to store in Caples, Silver, and Aloha Lakes; and to redivert the water released from storage. The sole approved point of take for consumptive purposes is Folsom Reservoir.

A diversion from Folsom Reservoir requires acquiescence from the USBR and issuance of a Warren Act Contract. EID has diverted water under this right under a temporary urgency basis and the Warren Act Contract is pending.

Recycled Water Supplies

EID produces recycled water at both the El Dorado Hills and Deer Creek wastewater treatment plants which is then used by EID's customers for irrigation of residential landscape and commercial landscape. The availability of recycled water is currently limited to the El Dorado Hills and Cameron Park areas. EID anticipates a 2035 recycled water supply totaling 5,600 acre-feet per year (see Section 4.3 for further details).

4.2.2 Planned Water Supplies

EID has plans to acquire and use two additional water supplies from EDCWA for use within its service area to make available for the Proposed Project – water under the El Dorado-SMUD Cooperation Agreement and water under EDCWA's Fazio CVP supply. This section describes these supplies.

El Dorado-SMUD Cooperation Agreement

As shown in **Table 4-1**, the additional supplies include a grouping of water right applications and assignment of existing water right applications totaling approximately 40,000 acre-feet of water. This supply is being developed by the El Dorado Water and Power Authority (EDWPA). EDWPA is a Joint Powers Authority consisting of El Dorado County, El Dorado County Water Agency and El Dorado Irrigation District (collectively, El Dorado Parties). EDWPA was formed to pursue additional water supplies for the western slope of El Dorado County as determined by the El Dorado County General Plan. This need is identified in the El Dorado County Water Agency Water Resources Development and Management Plan (Water Plan).[31] The Water Plan is

[31] http://www.edcgov.us/water/final_water_resources_plan.html

designed to coordinate water resource planning activities within El Dorado County and identifies water supply needs for the western slope of El Dorado County of approximately 34,000 acre-feet per year (AFA) at the 2025 demand level.

In 2005, the El Dorado Parties signed the "El Dorado – SMUD Cooperation Agreement" (included with **Appendix A**), which would help meet the Water Plan's identified water supply needs. This Agreement requires SMUD to make annual deliveries of up to 30,000 acre-feet of water through 2025 and 40,000 acre-feet thereafter from SMUD's Upper American River Project (UARP) to the El Dorado Parties. In 2008, EDWPA petitioned the SWRCB for partial assignment of two applications for diversion and storage to obtain water supplies necessary to trigger SMUD's obligations. A Draft Environmental Impact Report has been prepared in support of the water rights application and was circulated in July 2010. EDWPA is currently in the protest settlement phase and the CEQA process is anticipated to be completed in 2014 with award of water rights shortly thereafter.

The El Dorado-SMUD Cooperation Agreement also obliges SMUD to provide carryover storage and delivery to EID of up to 15,000 acre-feet of drought protection water supplies to be obtained by EDWPA. Based on demand projections, EID anticipates that only 30,000 acre-feet of the 40,000 acre-feet identified in the water right applications and the El Dorado – SMUD Cooperative Agreement will be available to EID in normal years. Moreover, EID has planned that a mere 5,000 acre-feet of the water supply will be available for EID's uses in each dry year. This number is derived from Appendix H of the El Dorado – SMUD Cooperation Agreement describing deliveries available from carryover storage. Both of these conservative assumptions are shown in **Table 4-1**. EID has planned this supply to be available starting in 2025.

Fazio CVP Supply

EID is also in the final stages of securing 7,500 acre-feet of CVP water supplies in conjunction with EDCWA. In 1990, Congress directed the Secretary of the Interior, through the USBR, to enter into a new CVP Municipal and Industrial (M&I) water service contract with EDCWA for up to 15,000 acre-feet of water annually (Section 206 of P.L. 101-514). The CVP water service contract requires requisite compliance by EDCWA and the USBR with CEQA, NEPA, and ESA statutes.

In 2009, a draft EIS/EIR was released for public review and comment for the CVP M&I water rights contract. In 2010, USBR advised EDCWA that it would take another 5 years before the CVP-Operations Criteria and Plan (OCAP) related litigation would allow the EIS to move forward. As a result, EDCWA made the decision to detach the EIR from the EIS – essentially separating the CEQA and NEPA processes. EDCWA certified the Final EIR and approved the project in January 2011. EDCWA then prepared and submitted to USBR a draft Biological Assessment (BA) in September 2011 and a draft Final EIS in October 2011. USBR submitted

the draft Final EIS to NOAA Fisheries in December 2011. Final EIS completion and contract execution is pending completion of ESA consultation with NOAA Fisheries.

The CVP contract seeks to acquire 15,000 acre-feet of CVP project water, of which at least 7,500 acre-feet would be made available to EID by subcontracts with EDCWA.[32] Diversions by EID would occur at its existing intake in Folsom Reservoir, conveyed to the El Dorado Hills Water Treatment Plant, and delivered to a specific place of use location in El Dorado Hills and Cameron Park areas as shown in Figure ES-2 of EDCWA's EIR.

The contract negotiations and environmental compliance efforts are ongoing. These actions allow EID to use this water supply in this WSA as a planned supply that will be available to EID in the future to serve the Proposed Project. The approval of the contract terms as well as finalization of the environmental documents will allow EID to apply the water supplies under this contract entitlement to municipal and industrial beneficial uses. EID has planned this water supply to be available starting in 2015.

4.2.3 Normal Year Water Supply Availability

As shown in **Table 4-1**, EID's total water entitlements under its existing and planned supplies does not equate to the amount of water available in normal years in the future. The normal year water supplies will be described in this section.

Excluding recycled supplies, EID's secured water rights and entitlements available for the Proposed Project total 67,190 acre-feet. As shown in the sufficiency analysis in Section 5, this amount is insufficient to serve EID's future demand incorporating the Proposed Project and all planned future projects. Accordingly, this section assesses both EID's secured supplies and additional planned supplies. EID's water supplies associated with the entire secured and planned water assets totals 110,290 acre-feet per year.

The 67,190 acre-feet of secured supplies include appropriative water right license 2184 and pre-1914 appropriative water rights associated with Slab Creek, Hangtown Creek and Weber Creek. As described above, these rights are collectively combined for conveyance purposes in a Warren Act Contract, No. 06-WC-20-3315, that allows for storage in and diversion from Folsom Reservoir. The total volume is 4,560, net of a negotiated 15% conveyance loss under the terms of the Warren Act contract. For purposes of serving the Proposed Project, EID assumes full diversion at 4,560 in normal years under these water assets.

Appropriative water right licenses 11835 and 11836 are also secured supplies. These supplies can be diverted from several creeks in the Cosumnes River watershed (Camp, Hazel, and Sly

[32] Central Valley Project Water Supply Contracts Under Public Law 101-514 (Section 206): Proposed Contract Between the U.S. Bureau of Reclamation and the El Dorado County Water Agency, and Proposed Subcontracts Between the El Dorado County Water Agency and the El Dorado Irrigation District, and Between the El Dorado County Water Agency and the Georgetown Divide Public Utility District Final Environmental Impact Report at ES-1, January 2011.

Park) and are typically stored in Jenkinson Lake. The maximum rate of diversion is 500 cfs for a total possible diversion volume of 33,400. However, due to limitations in storage availability in Jenkinson Lake assessed through OASIS hydrologic modeling, the maximum available normal year supply for the Proposed Project is 23,000 acre-feet.[33] Although EID has diverted as much as 25,745 acre-feet from this reservoir, EID does not anticipate using more than 23,000 acre-feet under this right for its normal year diversions in the future.

Central Valley Project Contract 14-06-200-1375A-LTR1 is a secured supply available for immediate use for the Proposed Project. This CVP contract entitlement requires the USBR to deliver up to 7,550 acre-feet of water from its SWRCB water right permits on the American River to EID.

As described in Section 4.2.1, EID also has a number of pre-1914 appropriative water rights on the American River with storage components in Silver Lake, Lake Aloha, Caples Lake, and Echo Lake. For purposes of this document, these are collectively called the pre-1914 American River water rights.[34] The total volume of water available under the pre-1914 American River water rights is 15,080 acre-feet in normal years.

Appropriative water right permit 21112 is a secured supply for purposes of this WSA. Permit 21112 allows EID to divert up to 17,000 acre-feet of water per year from Folsom Reservoir to be used in EID's service area. EID has diverted water under this permit as part of a temporary urgency in 2008. EID must finalize its Warren Act Contract to divert this water at Folsom Reservoir. However, based upon the availability of the supply in Permit 21112, the ability to store the water in Caples, Silver, and Aloha lakes, and the pending conveyance agreement with USBR, the normal-year availability of this supply is 17,000 acre-feet.[35]

As described in Section 4.2.2, EID's planned water supplies include the CVP Fazio supply of 7,500 acre-feet as authorized under federal law. Once secured, EID should receive normal-year deliveries of the full entitlement just as USBR promises to other CVP M&I contract holders on the American River system. There is no reason to believe that this contract entitlement will be different than other CVP contract entitlements on the American River system.

Last, as described in Section 4.2.2, EID's planned water supplies derived from the EDWPA appropriative water right applications filings and assignments, as well as the El Dorado – SMUD Cooperation Agreement, indicate that EID should receive normal-year water deliveries of 30,000 acre-feet per year starting in 2025 and then as much as 40,000 acre-feet of deliveries thereafter.

[33] 2013 Water Resources Report

[34] California Water Code section 10910(d)(2)(A) requires "proof of entitlement" of each individual water right that is combined into this pre-1914 American River water rights grouping. These documents are contained in **Appendix A** of this Water Supply Assessment.

[35] EID Urban Water Management Plan 2010 Update, July 2011 at page 4-7 of 22. Follow-up discussion with EID Counsel on water availability on April 23, 2013.

Based on demand projections, the District uses 30,000 acre-feet of normal-year deliveries under these collective applications and the El Dorado-SMUD Cooperation Agreement.

4.2.4 Dry-Year Water Supply Availability

As shown in **Table 4-1**, EID anticipates less water being available in dry years than is otherwise available in normal years as described in Section 4.2.3. Dry-year supplies include supply reductions attributable to hydrologic droughts and regulatory curtailments. The dry-year water supplies are described in this section.

EID's entire normal-year secured and planned water assets total 110,290 acre-feet per year. In dry years, EID's total water assets equal 77,885 acre-feet. Of this total supply, 61,660 acre-feet are secured water assets and 16,225 acre-feet are planned water assets.

As described in Section 4.2.3, the secured water assets include License 2184 and the additional pre-1914 appropriative rights that are included in Warren Act contract 06-WC-20-3315, Licenses 11835 and 11836, CVP Contract 14-06-200-1375A-LTR1, the pre-1914 American River water rights grouping, and Permit 21112. All of these water rights are subject to different regulatory and hydrological restrictions that could result, in some instances, in reduction of the water supplies available under the right or entitlement in dry years.

The water rights contained in the Warren Act Contract 06-WC-20-3315 have some level of regulatory restrictions and hydrological uncertainty. EID's 2010 UWMP indicates that the estimated dry-year yield associated with this water asset is 3,000 acre-feet per year based upon regional hydrologic conditions.[36] Accordingly, based upon the presumed hydrologic conditions, the dry-year reliability for this supply in three consecutive dry years is 3,000 acre-feet per year.

Licenses 11835 and 11836 have a full diversion entitlement of 33,400 acre-feet per year. Of that amount, carryover storage in Jenkinson Lake and diminished inflow reduce that entitlement to a normal-year supply of 23,000 acre-feet per year. In dry years, this amount is further reduced based upon hydrologic conditions as well as carryover storage needs for future years from Jenkinson Lake. Accordingly, based upon the OASIS hydrologic modeling report, EID reduces this supply's availability to 20,920 acre-feet in a single dry year. Thus, 20,920 acre-feet per year is used in this WSA as the dry-year safe yield number for a single dry year. To be conservative, EID plans for this supply to be further reduced during year two and again in year three of and three consecutive dry years. This WSA uses 17,000 acre-feet and 15,500 acre-feet as the available supply in year two and year three of a multi-year drought, respectfully.

CVP Contract 14-06-200-1375A-LTR1 has a normal-year entitlement of 7,500 acre-feet per year. The USBR, however, assesses the dry-year supply availability of its CVP M&I contracts

[36] EID Urban Water Management Plan 2010 Update, July 2011 at page 4-6 of 22. Follow-up discussion with EID Counsel on water availability on April 23, 2013.

through the CVP M&I Shortage Policy. Based on inflow and storage criteria developed at the joint operations center, USBR can reduce contract water supplies under the CVP M&I Shortage Policy by up to 25% of historic use with various adjustments made for population, use of non-CVP water and extraordinary conservation actions.[37] With these adjustments in mind, USBR calculates the reduced CVP M&I delivery essentially based upon the average of the three previous normal years of use under the CVP contract. Under the strictest interpretation of this policy, if the water under the CVP contract was not used, then the dry year water is not available. But, USBR has considered that use of non-CVP supplies in lieu of CVP water use may be used to calculate use under this shortage policy. For purposes of this analysis, however, we have determined that based upon normal growth in demand in EID's service area, EID's customers would utilize the entire contract entitlement in normal years in the future. As such, EID calculates its dry-year reduction for this Proposed Project based upon three years of full use of its contract allocation. Accordingly, the dry year supply under this water contract entitlement is 5,660 acre-feet per year.

EID's pre-1914 American River water rights-grouping has a normal-year reliability of 15,080 acre-feet per year. Based upon the early priority date of these water assets and the storage capability within EID's system associated with these water assets, they are not reduced at all in a single dry year or three consecutive dry years.

Permit 21112 is another secure dry-year water asset. EID's 2010 UWMP states "there are no cutback provisions on this supply."[38] As such, the dry year reliability of Permit 21112 is 17,000 acre-feet per year.

As described in Section 4.2.2, EID's planned supplies include the CVP Fazio supply, and the several rights and contract that make up the UARP SMUD water. All of these assets combined have a three consecutive dry year supply reliability of 10,625 acre-feet per year.

The CVP Fazio supply is another CVP M&I contract supply that is subject to the same Municipal and Industrial shortage provisions described above for EID's other CVP contract entitlement. EID's expected portion of the Fazio supply has a normal-year contract allocation of 7,500 acre-feet per year. Assuming under the rules described above that EID is able to use its entire contract entitlement in the future, a 25% reduction from the contract entitlement reduces the delivery by 1,875 acre-feet per year. As such, the single dry year reliability and three consecutive dry year reliability under this contract is 5,625 acre-feet per year.

[37] Reclamation has the authority to reduce the supply volumes even further under extreme conditions – Health and Safety criteria – but this sort of supply reduction would only occur in extreme drought and would be offset by reductions in demand in EID's service area, as needed, to maintain basic Health and Safety conditions. The District's drought contingency plans address these situations.

[38] This assertion was confirmed in a telephone conversation with the District's Counsel on April 23, 2013.

Last, the UARP SMUD water that is derived from the numerous water right applications and assignments as well as the El Dorado-SMUD Cooperative Agreement indicates that the water available under these components in dry years could be severely curtailed. Appendix H of the Agreement states that annual deliveries can be superseded and deliveries from carryover drought storage can be reduced to as little as 5,000 acre-feet in a declared Critically Dry year if SMUD reservoir storage drops below 100,000 acre-feet (approximately 25%). Out of an abundance of caution, EID anticipates only 5,000 acre-feet of carryover drought-supply water would be available each year over the course of a three-year drought.

4.3 RECYCLED WATER SUPPLIES

EID uses recycled water to meet some current non-potable demands within its service area. EID may expand its development and use of recycled water in the future to meet a portion of the non-potable demands associated with the Proposed Project and other anticipated new demands. EID's current recycled water use is about 2,200 acre-feet per year. This use will expand incrementally over time. By 2035, EID anticipates a supply of 5,600 acre-feet of recycled water per year within its service area.[39]

EID's recycled water system consists of supply from the El Dorado Hills wastewater treatment plant and the Deer Creek wastewater treatment plant. These treatment plants have an interconnected network of transmission and distribution pipelines, pump stations, storage tanks, pressure reducing stations, and appurtenant facilities located within the communities of El Dorado Hills and Cameron Park.[40] EID mandates the use of recycled water through Board Policy 7010, wherever economically and physically feasible as determined by the Board, for non-domestic purposes.[41] At this time, non-domestic use includes commercial landscape irrigation, residential or multi-family dual-plumbed landscape irrigation, construction water, and recreational impoundments.

Recycled water availability is an outcome of increased municipal and domestic demand and wastewater production as a byproduct of this demand. In other words, annual recycled water production capabilities are based on the total wastewater flows to the treatment plants. With the population and industrial demands growing in this region, as described in Section 3, the availability of recycled water will increase. EID is taking a conservative view of the growth in recycled water based upon its current production levels, estimated regional population growth, facility expansion identified in its 2013 IWRMP and WWFMP, treated water discharge requirements, and its ability to capture and store recycled water supplies in the future. The total recycled water available for use in 2035 is estimated to be 5,600 acre-feet per year.[42]

[39] EID Integrated Water Resources Master Plan, March 31, 2013
[40] EID Urban Water Management Plan 2010 Update, July 2011 at page 4-10 of 22.
[41] EID Urban Water Management Plan 2010 Update, July 2011 at page 4-6 of 22.
[42] EID Integrated Water Resources Master Plan, March 31, 2013 at page 221.

Accordingly, Table 4-2 shows the incremental recycled water assets that would be available over time for the District's non-potable water uses.

Table 4-2 – Timing of Recycled Water and Quantities

Year	Recycled Water Supply (acre-feet)
Current	2,200
2015	2,400
2020	2,600
2025	3,100
2030	4,200
2035	5,600

4.4 Facility Costs and Financing

EID's recently completed 2013 IWRMP and WWFMP identify and allocate the future costs of capital expansion and replacement needs, and addresses financing mechanisms for EID's water assets. These costs and financing mechanisms are hereby incorporated by reference.

The District establishes and periodically updates its Facility Capacity Charges (FCCs) to recover the cost of those portions of existing District facilities that will be used by future customers and to fund needed expansion, or additional capacity, of District facilities to serve new users. The District periodically reviews its FCCs to ensure they accurately reflect the costs of providing service to new customers. Currently the District is updating the FCCs to incorporate projects identified in the adopted 2013 IWRMP. The FCC update is currently under review by the Board and a developer committee, and the District anticipates adoption of the updated FCCs in August 2013.

4.5 Regulatory Approvals and Permits

As described in Section 4.2.2, EID has water assets that require further regulatory approvals, permit compliance, and contract approvals. Each water asset has its own set of regulatory requirements that are assessed in this section.

Appropriative water right Permit 21112 issued by the SWRCB has not been perfected. In order to perfect an appropriative water right, EID must put all of the water assets under that permit to beneficial use. Upon putting the water to beneficial uses and meeting all of the other conditions in the water right permit, EID will be eligible to obtain a water right license for this appropriative water right. Attaining a water right license further fortifies the legitimacy of the water right for EID's continual use in the future. There is no indication that EID will have difficulty in obtaining a water right license for Permit 21112.

Permit 21112 also requires a Warren Act Contract to be negotiated and approved by the USBR. The Warren Act Contract will allow EID to divert water from Folsom Reservoir for delivery to the El Dorado Hills Water Treatment Plant. Although the District may choose to divert some of the water upstream of Folsom Reservoir through other SWRCB regulatory processes, a Warren Act Contract is essential for any diversions emanating from Folsom Reservoir. EID is currently in negotiations with USBR to obtain a long-term contract. While those negotiations continue, short-term Warren Act Contracts are also obtainable, if needed. There are no foreseeable reasons that these negotiations will not succeed. Both EID's Board of Directors and USBR officials will need to execute the contract once the terms have been drafted, and EID will need to obtain judgment in a judicial action to validate the contract.

The Fazio water supply also has additional regulatory approvals and permits pending. This CVP contract entitlement is authorized by Public Law 101-514. The 15,000 acre-feet of water supply is contemplated to be split equally between Georgetown Divide Public Utilities District and EID. As described in Section 4.2.2, EDCWA is negotiating with USBR on behalf of EID to secure the CVP contract entitlement authorized by this federal statute and finalize the EIS. Accordingly, EID will continue to work with EDCWA and USBR to finalize acquisition of this water supply. Upon completion of the EIS, the EDCWA's designee and USBR officials will need to execute the CVP water supply contract, and EDCWA may need to obtain judgment in a judicial action validating the contract.

The pending water right applications and application assignments before the SWRCB as well as the El Dorado – SMUD Cooperation Agreement constitute the last water supply that is pending further regulatory approvals. As described in Section 4.2.2, EDWPA is awaiting approvals from SWRCB for these water assets. Upon SWRCB approval, EID will obtain 30,000 acre-feet of water under the El Dorado – SMUD Cooperation Agreement.

The SWRCB water right process requires the SWRCB to conduct an internal project review of the applicable technical and hydrological information as well as consider the broader effects on other legal users of water throughout the watershed before issuing a permit. This regulatory process may eventually necessitate a SWRCB hearing where testimony from proponents and opponents of the water right permit is heard and weighed by the SWRCB Board Members before issuing the conditioned permits. Once permits have been issued, then the District must comply with the permit terms and perfect application of the water supplies to beneficial use in order to acquire water right licenses associated with the appropriative water rights.

The El Dorado – SMUD Cooperation Agreement is an agreement among the various parties to cooperate in facilitating the storage and delivery of these water assets to the identified purveyors. As such, through the processing of the water right applications and the furtherance of compliance with the terms of those agreements, the water assets considered there are likely to be available to

EID. The regulatory approvals and permits needed to finalize EID's control over these water assets are moving forward.

4.6 SUPPLY SUMMARY

EID has two broad categories of water assets that are available for the Proposed Project – the secured water assets and planned water assets. Collectively, these supplies total 110,290 acre-feet in normal water years and 77,885 acre-feet in a single dry water year. In year two and year three of a multi-year drought, supplies are further reduced to 73,965 acre-feet and 72,465 acre-feet, respectfully.

As described above, the secured water assets include appropriative water right License 2184 and the accompanying pre-1914 appropriative water rights held under Warren Act Contract 06-WC-20-3315, appropriative water right Licenses 11835 and 11836, CVP Contract 14-060200-1375A-LTR1, the pre-1914 American River storage and diversion appropriative water rights, and Permit 21112. The normal year water supplies available to EID under the secured assets total 67,190 acre-feet per year. In dry years, the water supplies available to EID under the secured assets totals 61,660 acre-feet per year.

The planned water assets, although partially secured, are not yet fully available for EID's use to serve the Proposed Project contemplated in this WSA. As described above, these assets are sufficiently secure to be considered planned supplies for the Proposed Project in 2035. In normal years, the water supplies under these assets total 37,500 acre-feet. In dry years, the water supplies under these assets total 10,625 acre-feet.

Finally, the recycled water assets in both normal and dry years, derived from planned growth and continual indoor water usage regardless of year type, total 5,600 acre-feet in 2035.

SECTION 5 – SUFFICIENCY ANALYSIS

5.1 INTRODUCTION

The analysis detailed in this section provides a basis for determining whether sufficient water supplies exist to meet the estimated water demand of the Proposed Project.[43]

This section includes:

- Analysis of sufficiency, considering variations in supply and demand characteristics under normal, single-dry and multi-dry hydrologic conditions,
- Analysis conclusions

5.2 SUFFICIENCY ANALYSIS

The sufficiency analysis integrates the water demands detailed in Section 2 and Section 3 with the water supplies characterized in Section 4. The results are presented in **Table 5-1** beginning with "current" conditions (recognized as 2012) and continuing with 5-year increments from 2015 through 2035. While the analysis at various intervals before build-out is important, the most critical projection for the sufficiency analysis occurs in 2035. This analysis assumes that the Proposed Project, along with the other projects simultaneously undergoing a WSA analysis (see Section 3.3), are fully constructed by 2035, and other anticipated growth continues as described in Section 3.4.

Table 5-1 incorporates the Proposed Project water demand projection in **Table 2-3**, assuming the Proposed Project develops as detailed in Section 1, and the estimated water demands for all other existing and planned future uses through 2035 as detailed in **Table 3-2**. **Table 5-1** also presents the available water supplies for the contiguous EID service area during normal, single-dry and multiple-dry years, as detailed in Section 4. The water demands and available supplies in a single dry-year and multiple dry-year condition are discussed in the following subsections.

[43] CWC § 10910 (c)(4) provides that "If the city or county is required to comply with this part pursuant to subdivision (b), the water supply assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses."

Table 5-1 – Comparable Analysis of Supply and Demand

Year	Project Water Demand (af/yr)	All Other EID Water Demands (af/yr)	Total Water Demands (af/yr)	Non-Revenue Water @ 13%	Demands with Loss	EID Water Supplies						
						Surface Water				Recycled Water (af/yr)	Total Available Water Supply (af/yr)	Projected Surplus/ (Shortfall) (af/yr)
						Hydrologic Year Type		EDH Service Area (af/yr)	West/East Service Area (af/yr)	Total (af/yr)		
Current	0	38,984	38,984	N/A	38,984	Normal		29,110	38,080	67,190	2,200	69,390	30,406
	0	40,933	40,933	N/A	40,933	Single Dry		25,660	36,000	61,660		63,860	22,927
	0	40,933	40,933	N/A	40,933	Multiple Dry	Year 1	25,660	36,000	61,660		63,860	22,927
	0	38,068	38,068	N/A	38,068		Year 2	25,660	32,080	57,740		59,940	21,872
	0	34,793	34,793	N/A	34,793		Year 3	25,660	30,580	56,240		58,440	23,647
2015	125	34,831	34,956	4,544	39,500	Normal		36,610	38,080	74,690	2,400	77,090	37,590
	131	36,573	36,704	4,771	41,475	Single Dry		31,285	36,000	67,285		69,685	28,210
	131	36,573	36,704	4,771	41,475	Multiple Dry	Year 1	31,285	36,000	67,285		69,685	28,210
	122	34,012	34,134	4,437	38,572		Year 2	31,285	32,080	63,365		65,765	27,193
	111	31,087	31,198	4,056	35,254		Year 3	31,285	30,580	61,865		64,265	29,011
2020	638	37,359	37,997	4,940	42,937	Normal		36,610	38,080	74,690	2,600	77,290	34,353
	670	39,227	39,897	5,187	45,084	Single Dry		31,285	36,000	67,285		69,885	24,801
	670	39,227	39,897	5,187	45,084	Multiple Dry	Year 1	31,285	36,000	67,285		69,885	24,801
	623	36,481	37,104	4,824	41,928		Year 2	31,285	32,080	63,365		65,965	24,037
	569	33,343	33,912	4,409	38,321		Year 3	31,285	30,580	61,865		64,465	26,144
2025	1,137	42,721	43,859	5,702	49,561	Normal		19,610	85,080	104,690	3,200	107,890	58,329
	1,194	44,858	46,052	5,987	52,039	Single Dry		14,285	58,000	72,285		75,485	23,446
	1,194	44,858	46,052	5,987	52,039	Multiple Dry	Year 1	14,285	58,000	72,285		75,485	23,446
	1,111	41,718	42,828	5,568	48,396		Year 2	14,285	54,080	68,365		71,565	23,169
	1,015	38,129	39,144	5,089	44,233		Year 3	14,285	52,580	66,865		70,065	25,832
2030	1,646	49,570	51,216	6,658	57,874	Normal		19,610	85,080	104,690	4,100	108,790	50,916
	1,728	52,048	53,777	6,991	60,768	Single Dry		14,285	58,000	72,285		76,385	15,617
	1,728	52,048	53,777	6,991	60,768	Multiple Dry	Year 1	14,285	58,000	72,285		76,385	15,617
	1,607	48,405	50,012	6,502	56,514		Year 2	14,285	54,080	68,365		72,465	15,951
	1,469	44,241	45,710	5,942	51,652		Year 3	14,285	52,580	66,865		70,965	19,313
2035	1,927	57,627	59,554	7,742	67,295	Normal		19,610	85,080	104,690	5,600	110,290	42,995
	2,023	60,508	62,531	8,129	70,660	Single Dry		14,285	58,000	72,285		77,885	7,225
	2,023	60,508	62,531	8,129	70,660	Multiple Dry	Year 1	14,285	58,000	72,285		77,885	7,225
	1,881	56,273	58,154	7,560	65,714		Year 2	14,285	54,080	68,365		73,965	8,251
	1,720	51,432	53,152	6,910	60,061		Year 3	14,285	52,580	66,865		72,465	12,404

5.2.1 Single Dry Year Supply and Demand Conditions

Under this condition, EID would anticipate a variance from the normal-year analysis, including: (1) shortage in full availability of supplies as detailed in **Section 4**, and (2) an increase in water demand. The increase in demand is based on the following:

- Landscape irrigation demands will increase to reflect the generalized earlier start of the landscape irrigation season due to limited rainfall in the single driest year. Since this increase only applies to the outdoor portion of a customer's demand, an adjustment factor of 5 percent is applied to the total normal-year water demand values.
- Historically, during single dry year circumstances, EID does not implement its shortage contingency plan,[44] since the extent of the dry conditions into future years is unknown. EID follows adopted policies and its 2008 *Drought Preparedness Plan* when implementing any voluntary or mandatory demand reduction measures.

As a result of these factors, the Proposed Project water demand and those of the other existing and planned uses is expected to increase in a single dry year above the demand expected under normal hydrologic circumstances. Additionally, as detailed in Section 4, EID anticipates a decrease in available water supplies. These changes are shown in **Table 5-1**.

5.2.2 Multi-Dry Year Supply and Demand Conditions

When a single dry year expands into a series of dry years, water supply and demand conditions will continue to evolve. Under such a multi-dry year, EID would anticipate many similar conditions that were assumed for the single-dry year, including: (1) shortage in full availability of supplies as detailed in Section 4, and (2) increases in projected demands. However, when entering the second and third year of a sequence of dry-years, EID would implement necessary policies to manage limited water supplies.[45] Demands over a series of three dry years are adjusted as follows:

- Year 1 – the first year mimics a "single-dry year" condition, where demands increase approximately 5 percent and EID shortage policies are not yet invoked (see Section 5.2.1).
- Year 2 – The demands again mimic a "single-dry year" and would be expected to increase by 5 percent above normal year conditions. However, when recognizing a second dry-year, EID would invoke the first stage of the Drought Preparedness Plan. This stage states: "*The objective of Stage 1 is to initiate public awareness of predicted water shortage conditions, and encourage voluntary water conservation to decrease*

[44] See EID Board Policy AR 5011-Water Supply Management Conditions (available at http://www.eid.org/modules/showdocument.aspx?documentid=2687).
[45] See EID Board Policy AR 5011-Water Supply Management Conditions (available at http://www.eid.org/modules/showdocument.aspx?documentid=2687).

normal demand up to 15%."[46] As part of this stage, EID implements drought water rates among other specified activities to encourage conservation. For purposes of this WSA, the demand reduction achieved under Stage 1 is estimated to be 7 percent of the already higher single dry-year demand.

- Year 3 – Upon entering the third dry year, EID would invoke the second stage of the Drought Preparedness Plan. This stage states: "*The objective of Stage 2 is to increase public understanding of worsening water supply conditions, encourage voluntary water conservation measures, and then if necessary, enforce mandatory conservation measures in order to decrease normal demand up to 30%.*"[47] Under this Stage, EID increases efforts to reduce demand. For purposes of this WSA, the savings achieved under Stage 2 is estimated to be 15 percent of the already higher single dry-year demand.

As a result of these factors, the Proposed Project water demand and those of the Other Existing and Planned Uses is expected to increase in the first year of a multi dry-year condition above that estimated during normal hydrologic circumstances. In subsequent years, the demand will drop as elements of EID's Drought Preparedness Plan are implemented. These changes are shown in **Table 5-1**.

5.2.3 Analysis

As shown in **Table 5-1**, the demand and supply are compared under each hydrologic condition for each 5-year increment out to 2035. The resulting "supply surplus" or "supply shortfall" is shown in the final column. Based on the analyses, EID anticipates it will have sufficient water under all hydrologic conditions in each of the 5-year increments through 2035. Notably, the "surplus" supply is lowest during the second year of a multi-dry year condition, since this is the circumstance where demand is only slightly constrained, while supplies are the most constrained. Yet, even under such circumstances, sufficient water should be available.

5.3 SUFFICIENCY ANALYSIS CONCLUSIONS

As detailed in **Section 2**, this WSA estimates water demands for the Proposed Project of 2,177 acre-feet per year at build-out (including non-revenue water demands). The annual water demand estimate for all existing and planned projects in the contiguous EID service area, as detailed in **Section 3**, is approximately 67,300 acre-feet per year by 2035. After accounting for these demand projections for the next twenty years, EID should have sufficient water to meet the demands of the Proposed Project and its other service area demands for at least the next 20 years.

[46] See EID Board Policy AR 5011.2-Water supply slightly restricted Drought Stage 1 – Voluntary reductions in use (available at http://www.eid.org/modules/showdocument.aspx?documentid=2687).
[47] See EID Board Policy AR 5011.3-Water supply slightly restricted Drought Stage 2 – Voluntary and mandatory reductions (available at http://www.eid.org/modules/showdocument.aspx?documentid=2687).

The conclusion that EID should have sufficient water available to meet the needs of the Proposed Project, in addition to the other demands in its service area through 2035, rests on the following set of assumptions:

- EID, EDCWA, and EDWPA successfully execute the contracts and obtain the water right permit approvals for currently unsecured water supplies discussed in Section 4. Absent these steps, the water supplies currently held by EID and recognized to be diverted under existing contracts and agreements would be insufficient in 2035 to meet the Proposed Project demands along with all other existing and planned future uses.
- EID will commit to implement Facility Capacity Charges in an amount sufficient to assure the financing is available as appropriate to construct the necessary infrastructure as detailed in the March 2013 EID *Integrated Water Resources Master Plan*.
- Demand in single-dry years includes an additional 5 percent of demand over the normal year demand during the same time period. This conservative assumption accounts for the likelihood that EID customers will irrigate earlier in the season to account for dry spring conditions. This hypothetical demand augmentation may or may not manifest in dry years, but this conservative assumption further tests the sufficiency of water supplies during dry conditions.
- The estimated demands include 13 percent to account for non-revenue water losses (e.g. distribution system losses).

The finding of this WSA is that EID should have sufficient water to meet the demands of Proposed Project and its other service area demands for the next 20 years.

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MEMORANDUM

To: Shahira Ashkar, ICF International

Date: May 30, 2014

From: Greg Young, Tully & Young

Subject: Water Supply Options to El Dorado Irrigation District's Long-Term Planned Water Supplies for use in the Central El Dorado Hills CEQA Compliance Document

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The purpose of this memorandum is to document the water supply options to El Dorado Irrigation District's (hereafter the "EID") long-term planned water supplies as detailed in the Central El Dorado Hills Specific Plans Water Supply Assessment (hereafter "Central EDH WSA") adopted by EID on August 26, 2013. The information and text included in this memorandum can be directly inserted, as best determined by ICF, into the body of the CEQA document that ICF is preparing for the subject project.[1]

In *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal 4th 412 (hereafter *Vineyard*), the California Supreme Court identified specific requirements for an adequate analysis of water supply issues in an Environmental Impact Report (EIR). The court explained that future water supplies identified and analyzed in an EIR must be reasonably likely to prove available. Speculative water sources and unrealistic water allocations do not provide an adequate basis for a public agency's decision-making. The Supreme Court said that when a full analysis of future water supplies for a project leaves some uncertainty regarding the availability of the identified future supplies, the EIR must discuss possible replacement or alternative supply sources. In addition, the EIR must discuss the environmental effects of resorting to those alternative supply sources. The court held that it is not sufficient to address issues relating to future water supplies by simply stating that future development will not go forward in the absence of a sufficient water supply. (*Vineyard* at 431).

[1] Tully & Young must have an opportunity for review and approval of any changes to the information and/or text presented in this memo that may be recommended by ICF in its adaptation of information into the Central El Dorado Hills Specific Plan's CEQA documentation.

The court also recognized that the ultimate question under CEQA "is not whether an EIR establishes a likely source of water, but whether it adequately addresses the reasonably foreseeable impacts of supplying water to the project." (*Vineyard* at 450). Accordingly, if uncertainties inherent in long-term planning make it impossible to identify the future water sources with certainty, an EIR may satisfy CEQA if it acknowledges the degree of uncertainty involved, discusses the reasonably foreseeable water supply alternatives, and discloses the significant foreseeable environmental effects of each alternative, as well as mitigation measures to minimize each adverse impact. (*Vineyard* at 434).

Accordingly, the *Vineyard* opinion outlined the following general principles governing an EIR's analysis of water supply issues:

- An adequate environmental impact analysis for a long-range development plan cannot be limited to the water supply for the first stage of development. It must consider supplies necessary for the entire development.
- Future water supplies identified and analyzed in an EIR must be reasonably likely to prove available. Speculative sources and unrealistic paper allocation do not provide an adequate basis for decision making under CEQA.
- When, despite a full analysis, "it is impossible to confidently determine that anticipated future water sources will be available," CEQA requires some discussion of possible replacement or alternative supply sources, and of the environmental consequences of resorting to those sources. (*Vineyard* at 432)
- An EIR for a land use plan need not demonstrate that the water supply for the project is assured through enforceable agreements with a provider and built or approved treatment and delivery facilities. To interpret CEQA as requiring firm assurances of future water supplies at early stages of the planning process would be inconsistent with the water supply statutes, which call for an assured supply only at the end of the approval process. (*Vineyard* at 432).
- The "ultimate question under CEQA is not whether an EIR establishes a likely source of water, but whether it adequately addresses the reasonably foreseeable impacts of supplying water to the project." (*Vineyard* at 434)

For the El Dorado County development that is the subject of this analysis, the Central EDH WSA identified a potential water shortfall in very dry years absent planned water supplies (as detailed below). Accordingly, under the guidance of the *Vineyard* decision, the information that follows characterizes alternative water sources for the identified development.

As detailed in Section 4 of the Central EDH WSA and summarized in the Central EDH WSA's Table 4-1 (included below), the EID water supplies are separated into two classifications: existing and planned. Combined, the Central EDH WSA concluded that these supplies provide sufficient water for the proposed project (see **Figure 1**).

While there is reasonable certainty that all of the existing EID water supplies are available, there is a degree of uncertainty whether the planned Central Valley Project Fazio water entitlement (hereafter the "Fazio supply"), or the supplies anticipated under the El Dorado-SMUD Cooperation Agreement (hereafter the "UARP supply") will manifest in the quantities or on the schedule currently planned as EID proceeds through regulatory approval and contracting processes.

Therefore, as directed by the *Vineyard* principles outlined previously, an analysis of options that would provide sufficient water for the proposed project is necessary. The following discussion characterizes three water supply options (hereafter "Water Supply Options") that are viable alternative sources that could reasonably be available to serve the project.

Figure 1 – Project Water Supplies from the Central EDH WSA

Table 4-1 – Water Rights, Entitlements, and Supply Availability

Water Right or Entitlement	Maximum Water Assets Available (Ac-ft)	Normal Year Planned Supply Availability (Ac-ft)	Dry-Year Planned Supply Availability (Ac-ft)
License 2184 and pre-1914 ditch rights including Warren Act Contract 06-WC-20-3315	4,560	4,560	3,000
Licenses 11835 and 11836	33,400	23,000	20920[A]
CVP Contract 14-06-200-1375A-LTR1	7,550	7,550	5,660
Pre-1914 American River diversion and storage rights	15,080	15,080	15,080
Permit 21112	17,000	17,000	17,000
Subtotal Existing	**77,590**	**67,190**	**61,660**
Central Valley Project Fazio water entitlement (PL 101-514 (1990) Fazio) [D]	7,500	7,500	5,625
Applications 5645X12, 5644X02 and partial assignment of Applications 5645, 5644 with El Dorado-SMUD Cooperation Agreement [E]	40,000[B]	30,000	5,000[C]
Subtotal Planned	**47,500**	**37,500**	**10,625**
Recycled Water	5,600	5,600	5,600
Total	**130,690**	**110,290**	**77,885**

[A] This is the modeled safe-yield of this water right during a single dry-year. For planning purposes, the second and third dry years of a three-year dry period are assumed to be 17,000 acre-feet, and 15,500 acre-feet, respectfully
[B] Section 5.1.1 of the El-Dorado SMUD Cooperation Agreement indicates that 40,000 acre-feet of SMUD water will be available after 2025. For conservative Normal Year planning purposes, the District uses 30,000 acre-feet of available supply.
[C] Available supply is 15,000 acre-feet in a single dry year but in preparing for multiple dry years EID anticipates using only 5,000 acre-feet per year for a three year period.
[D] Available starting in 2015
[E] Available starting in 2025

Quantity of Water to Replace

To understand the quantity each Water Supply Option must provide, an evaluation of the Central EDH WSA's conclusions about surplus water is necessary. Table 5-1 of the Central EDH WSA summarizes the assessment of supply and demand for the year 2035. As demonstrated in that table, surplus water exists under all hydrologic conditions: normal, single-dry, and multi-dry years. Absent the Fazio and the UARP water supplies, however, the surpluses shown in the Central EDH WSA Table 5-1 are reduced or even become shortfalls under some conditions. **Table 1** presents the surplus as analyzed in the Central EDH WSA and the resulting change when the Fazio and UARP planned water supplies are removed.

Table 1 – Comparison of Surplus/Shortfall Conditions with and without Planned Supplies at Build-out Conditions (2035)

Hydrologic Year Type	Surplus Water (T. 5-1 of WSA) acre-feet/year	Quantity of "Planned Supplies" acre-feet/year		Surplus/(Shortfall) Water w/o "Planned Supplies" acre-feet/year
		Fazio	UARP	
Normal	42,995	7,500	30,000	5,495
Single Dry	7,225	5,625	5,000	(3,400)
Multi dry (Year 1)	7,225			(3,400)
Multi dry (Year 2)	8,251			(2,374)
Multi dry (Year 3)	12,404			1,779

As demonstrated in **Table 1**, at build-out conditions (2035) during a normal year there is still surplus water even absent the planned supplies, and thus no alternative supply is necessary.

However, during single-dry and multi-dry hydrologic conditions, the absence of the "planned supplies" causes a shortfall under several circumstances. The worst-case shortfall occurs during a single-dry hydrologic year – when supplies are curtailed, demands are elevated due to limited rainfall, and temporary demand management efforts are yet to be triggered by EID. Under these hypothetical shortfall conditions, EID would not have sufficient water to serve the proposed project and other existing and planned uses. Thus, as directed by the *Vineyard* decision, an alternative water supply that would provide up to 3,400 acre-feet during a single dry-year must be identified and its impacts assessed.

Water Supply Options

To enable an assessment in the EIR of Water Supply Options, this memorandum characterizes three Water Supply Options that have been developed to meet the 3,400 ac-ft shortfall:

- Option 1 – Construct Alder Reservoir
- Option 2 – Construct recycled water seasonal storage and implement additional conservation

- Option 3 – Participate in regional groundwater banking and exchange programs

Option 1 – Construct Alder Reservoir

Water Supply Option 1 (Option 1) envisions the construction of a new dam and storage reservoir in the Alder Creek watershed. Option 1 would provide more than ample dry-year water supplies to meet the targeted shortfall identified in **Table 1**. A storage facility on Alder Creek has been studied for many years, with the most recent analysis included in EID's 2013 *Integrated Water Resources Master Plan* (IWRMP). In the IWRMP, construction of the Alder Reservoir is an integral part of the EID recommended water resources plan. The IWRMP is included in this memo by reference.[2]

As described in the IWRMP:

> *"[T] he Alder Dam would be a rock-fill dam approximately 143 feet high with a crest length of 800 feet and width of 30 feet at elevation 5,333 feet. The Alder Reservoir would have a capacity of 31,700 ac-ft and capture approximately 23,100 ac-ft of water in an average runoff year from the Alder Creek drainage basin of 18.6 square miles. A new penstock and 10 MW powerhouse would be located near the existing El Dorado Canal allowing water withdrawn from Alder Reservoir to be used for hydroelectric generation and released into the El Dorado Canal downstream of the Alder Creek inverted siphon."*(IWRMP, p. 201)

Figure 2 represents the proposed location of Alder Dam and the resulting footprint of Alder Reservoir. The new reservoir is projected to provide a dry-year safe yield of 11,250 acre-feet.

Water captured and stored during the spring snowmelt runoff period would be released throughout the remaining months at either (1) Jenkinson Lake via the Hazel Creek Tunnel, (2) the Forebay Reservoir, (3) Folsom Reservoir, or (4) a new point of diversion such as the proposed White Rock diversion.

While the estimated safe yield of 11,250 acre-feet is more than three times the quantity necessary for a Water Supply Option, the Alder Reservoir project as currently planned by EID provides a well-documented alternative that has already undergone assessment and is included in the EID Board-adopted IWMRP.

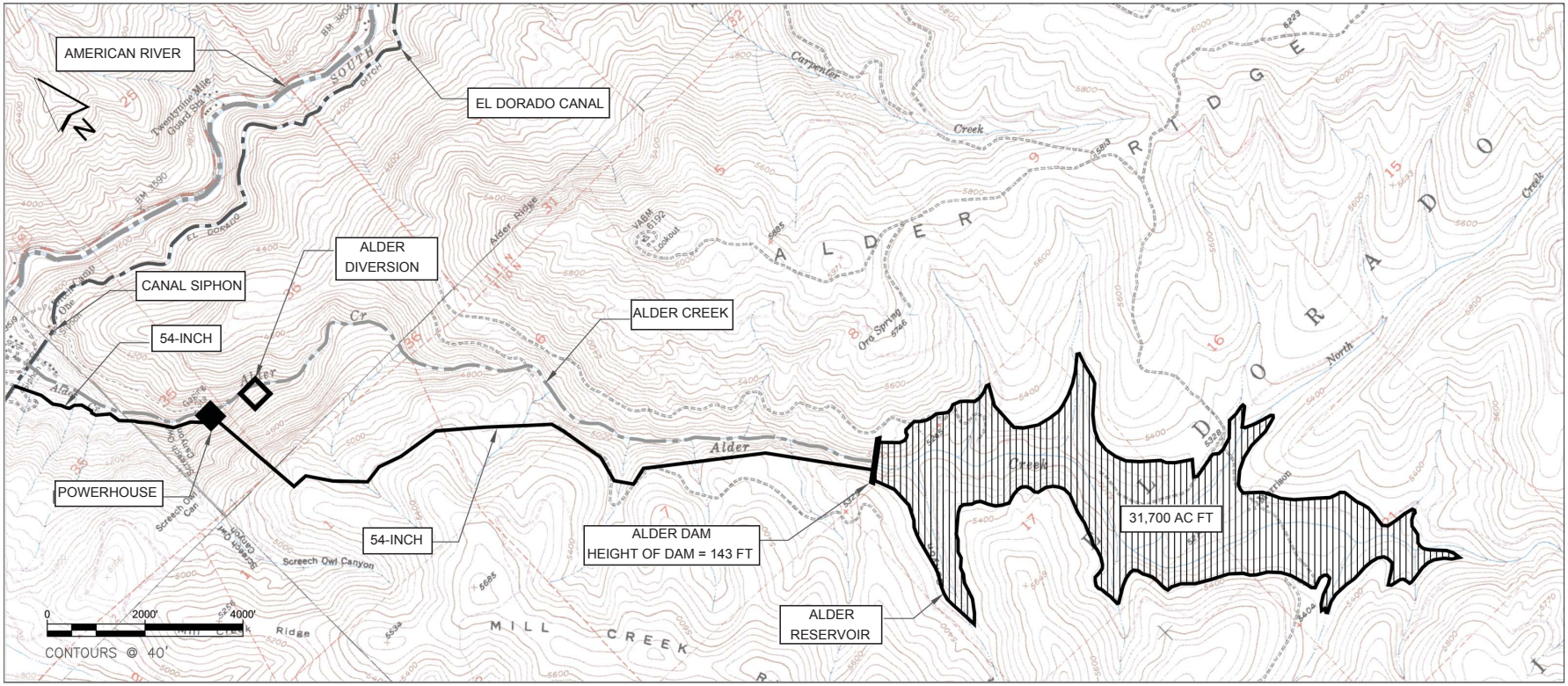
Water Supply Certainty

As detailed in the IWRMP, Alder reservoir would have a capacity of 31,700 acre-feet, capturing about 23,000 acre-feet in an average runoff year from the Alder Creek watershed. The safe yield of the reservoir is estimated to be about 11,250 acre-feet per year. This option provides significantly more water than is necessary to replace the WSA's planned water supplies. Thus,

[2] Integrated Water Resource Master Plan, March 2013, accessed on EID's website via http://www.eid.org/modules/showdocument.aspx?documentid=3554

even if the hydrology estimates produced lower runoff quantities, there would still be significantly more water than is required for replacement of the Central EDH WSA's "planned supplies," resulting in a high level of certainty of availability during dry-years.

Figure 2 – Location of Alder Dam and resulting Alder Reservoir
(source: EID IWRMP, Figure 8-4, p 203)



Source: EID Water Supply Optimization Study, Conceptual Designs and Cost Analyses TM (Domenichelli & Assoc., Inc., 2011)

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Alder Reservoir Facilities
Figure 8-4

Option 2 – Construct Recycled Water Seasonal Storage and Implement Additional Conservation

Water Supply Option 2 (Option 2) includes two components: (1) a recycled water seasonal storage reservoir to capture treated wastewater produced by EID that is otherwise in excess of the daily demand for recycled water, and (2) additional water conservation actions implemented by EID and its customers to reduce customer demand and/or reduce delivery system losses.

Seasonal Storage Reservoir

The first component, seasonal storage for recycled water, has been analyzed by EID. In a report published in May of 2011, EID detailed an assessment of potential seasonal storage locations (see *Basis of Design Report - EID Recycled Water Seasonal Storage Reservoir*, May 2011 [hereafter referred to as the "Design Report"]), included as **Attachment 1**.

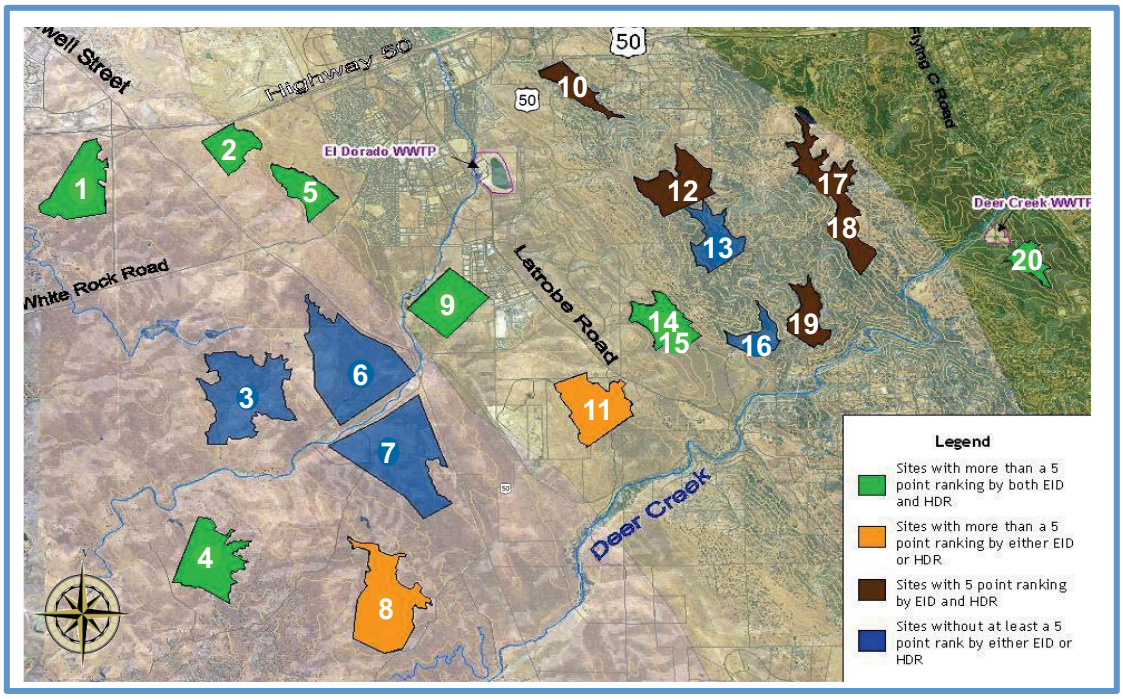
Of the twenty locations assessed in the Design Report, two locations were determined most suitable for additional analysis (see **Figure 3**). These were:

- El Dorado Hills Reservoir - Site 15 located south of the El Dorado Hills Wastewater Treatment Plant
- Deer Creek Reservoir – Site 20 located just south of the Deer Creek Wastewater Treatment Plant

These sites were thoroughly investigated to determine each location's ability to store 2,500 acre-feet of annual recycled water supply, allowing the supply to shift in time for use during peak summer months when demand otherwise exceeds recycled water production quantities. With the ability to store up to 2,500 acre-feet of recycled water produced during the off-season, EID can expand its water supplies. Currently, and as documented in the Central EDH WSA, EID must augment recycled water supplies with treated water supplies during the year due to the lack of storage. With storage, more recycled water can be used to meet demands, allowing other existing water supplies to be directed to other existing and planned future uses.

Section 4 of the Design Report provides detailed information regarding site location, geology, embankment design, pipeline routing, and other relevant information.

Figure 3 – Sites investigated in the EID Design Report
(source: EID's Basis of Design Report - EID Recycled Water Seasonal Storage Reservoir, May 2011, Figure 3-5, p. 22)



Water Conservation

With availability of 2,500 acre-feet from a recycled water storage reservoir to help meet the 3,400 acre-foot shortfall in dry years, the water conservation component of Option 2 would need to provide an additional 900 acre-feet. This supply may manifest either as additional reduction in EID customer demands, or as a reduction in distribution system losses.

Currently, EID implements a variety of water conservation practices consistent with the best management practices (BMPs) identified in the California Urban Water Conservation Council's (CUWCC) Memorandum of Understanding. These programs are part of EID's on-going operations, and include, but are not limited to: tiered pricing, water meters, leak audits, and public education. EID's Water Efficiency Programs offer numerous options directed towards conserving customer's water uses for commercial, residential, and landscaping purposes.

As demonstrated in Section 3.3 of the Central EDH WSA and summarized in the Central EDH WSA's Table 3-1, the existing EID customers are anticipated to reduce their demands through implementing conservation actions over the analysis period. Specifically, EID anticipates current customer demands will reduce by 2% by 2020 and an additional 1% by 2035. As shown in the Central EDH WSA Table 3-1, these savings are estimated to reduce current customer demands by 690 acre-feet annually.

Under this portion of Option 2, additional conservation actions will target generating an additional 900 acre-feet, slightly more than the conservative estimates of conservation identified in the Central EDH WSA.

Though there may begin to be limits for additional conservation opportunities from existing EID customers, EID also recognizes opportunities to conserve water through improvements to its existing water delivery infrastructure. As detailed in Section 3.4 of the Central EDH WSA, a "non-revenue" component of total water demands represents the system losses, meter inaccuracies, illegal connections, and other factors that help explain the differences between metered customer use and water entering EID's distribution system. For purposes of the Central EDH WSA, and as a conservative planning tool in other EID water planning efforts, this non-revenue value is assumed to hold constant at 13% of the overall customer demand. The 13% reflects over 4,500 acre-feet of water essentially unaccounted-for in EID's system under current delivery conditions. With increased customer demands, this value increases to over 7,500 by 2035. By fixing system leaks and addressing other elements of non-revenue demands, water can be recaptured and made available to meet customer demands.

As a routine part of its operations, EID works to identify sources of non-revenue demand, seeking to improve delivery system efficiencies as economically feasible. Though the specific requirements and resulting water savings from addressing overall distribution system losses and inefficiencies are an evolving process, EID has been successful in the past and will continue to do so into the future. As issues are identified, EID evaluates options, assesses costs, and details savings opportunities. As these plans are developed they are assigned a project number, priority level, and moved into EID's Capital Improvement Plan (CIP) as specific projects.

One example of a water conservation project EID has assessed and included as part of its CIP is the Main Ditch piping project from Forebay Reservoir to the Reservoir 1 Water Treatment Plant. The conservation savings from piping a 3-mile long earthen canal that carries as much as 15,080 acre-feet annually are estimated as high as 1,300 acre-feet per year. In addition to the water savings from this project, public health benefits will also accrue including lower sediment levels in the raw water reaching the treatment plant and greatly reduced risk of contamination. EID has included this project in its latest Board approved CIP and is currently working to secure funding.[3] For purposes of Option 2, this particular system loss reduction project is assumed to achieve the additional 900 acre-feet of conservation supply.

In 2004 EID participated in the testing of the new American Water Works Association water audit methodology (AWWA audit) to evaluate the losses from its delivery system. From the AWWA audit, EID recognized it had significantly reduced its water losses over

[3] EID 2014-2018 CIP, Project Number 11032

the previous decade, from 28% in 1991 to 13% in 2004. With a decade passing since the AWWA audit, there have been improvements in leak detection technologies as well as growth in the number and experience of contractors specializing in leak detection and repair. As EID continues to improve its distribution system to efficiently meet customer needs, some of the opportunities identified by the 2004 AWWA audit may now be cost effective to investigate, assess and implement.

Along with continued investigation, assessment and implementation of actions to reduce non-revenue demands, EID can expand current rebate programs and other customer-focused water conservation measures. An additional one percent reduction in the demands of current customers, beyond the savings already anticipated in the Central EDH WSA, could reduce demand by another 350 acre-feet annually.

As a conservative assumption, an additional one percent reduction in customer demands through conservation measures and a one percent reduction in the non-revenue demands could produce over 900 acre-feet of water annually. Greater reduction in either category and/or piping the Main Ditch would only increase the savings further.

Water Supply Certainty

Combined, the recycled water seasonal storage reservoir and additional conservation measures could generate at least 3,400 acre-feet needed in dry years. Because the seasonal storage facility would capture and regulate the consistent outflows of EID's wastewater treatment plants, the identified yield is considered to be highly reliable under all hydrologic conditions. Long-term reductions in customer demand and fixes to distribution system inefficiencies also provide a consistent savings regardless of hydrologic conditions. Thus, this Water Supply Option provides a high level of certainty of availability during dry years.

Option 3 – Participate in Regional Groundwater Banking and Exchange Program

Under Water Supply Option 3, EID would coordinate with other regional water purveyors to exchange wet and normal year EID surface water supplies for use of non-EID water supplies in critical dry years. Option 3 could be achieved in partnership with one or more of many water purveyors that share access to the American River. Any opportunity, however, is premised on an agreement among the parties and regulatory approvals to allow EID surface water supplies to be used or stored outside of EID's existing place of use during normal and wet conditions, and EID's use of a partner's American River-related water supplies during dry conditions.

Like the other two options, this Option 3 needs to assure a minimum of 3,400 acre-feet of water is available to EID during a single dry year.

As presented in the Central EDH WSA and summarized in **Table 1**, at build-out during normal and wet years, EID has a surplus of secured ("existing") water supplies totaling about 5,500 acre-feet annually. All or a portion of this supply is assumed available for delivery to another regional water purveyor to enable the conjunctive use exchange opportunities envisioned under this option. **Table 2** includes a sample 13-year condition illustrating a potential exchange of water among the parties.[4]

Several water purveyors with surface water rights and entitlements on the American River could participate with EID to develop this water supply option.

As envisioned, EID would exchange normal year water for use of a portion of the partner's surface supplies (e.g., if Sacramento County Water Agency was the partner, the supply exchanged to EID could be SCWA's dry year CVP contract water supply or other SCWA water rights). In wetter and normal water years, EID would deliver its 5,500 acre-feet surplus to its conjunctive use partner for use in the partner's service area (e.g. SCWA would deliver the surface water to its customers). In taking EID's surplus surface water, the partnering agency would forego groundwater use and thus "bank" groundwater supplies as stored water in the underground aquifer. During critical dry years, the partnering agency would rely upon this banked groundwater to meet local needs and allow EID to divert up to 3,400 acre-feet of its surface rights or entitlements at an existing EID facility in Folsom Reservoir or another existing EID diversion and treatment facility.

[4] The sample period reflects the CA Department of Water Resources' Sacramento Valley water year index for 2000 through 2012 from Bulletin 120.

Table 2 – Sample exchange of water among parties to facilitate dry-year water supplies for EID

Year	Sample Hydrology (2000-2012)	EID supply "banked" (af/yr)	Other water to EID (af/yr)	Balance
0	above normal	5,500	0	5,500
1	dry	0	3,400	2,100
2	dry	0	2,374	-274
3	above normal	5,500	0	5,226
4	below normal	0	3,400	1,826
5	above normal	5,500	0	7,326
6	wet	5,500	0	12,826
7	dry	0	3,400	9,426
8	critical	0	2,374	7,052
9	dry	0	2,374	4,678
10	below normal	0	2,374	2,304
11	wet	5500	0	7,804
12	below normal	0	3,400	4,404

Notes:
(1) Sample series of water year types is derived from the CA Department of Water Resources Bulletin 120 series for the Sacramento Valley.
(2) In a second dry year, the EID demand for supplemental water is reduced as shown in Table 1

Water Supply Certainty

This Water Supply Option could generate up to 3,400 acre feet of water for diversion by EID in dry years on a reasonably certain basis – given that any conjunctive use partnership would only be established with a purveyor(s) able to reliably provide adequate dry year surface supplies to EID.

Water Supply Option 3, which would exchange groundwater supplies and surface supplies in the Sacramento region, entails concerns related to the long-term reliability of groundwater supplies. In addition, there are also concerns related to the migration of existing groundwater contamination in eastern Sacramento County as a result of additional pumping under this water supply option. However, these and other water banking considerations are actively being investigated as part of regional conjunctive use opportunities.[5]

[5] For instance, the Sacramento Groundwater Authority has a defined water accounting framework to track groundwater resource that could be available for exchange via "banking" operations. The Sacramento Central Groundwater Authority is also actively investigating conjunctive use opportunities.

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MEMORANDUM

To: Rommel (Mel) Pabalinas, Planning Manager
Gina Hamilton, Senior Planner
El Dorado County Planning and Building Department

Cc: Shahira Ashkar, ICF International
Mike Brink, El Dorado Irrigation District

Date: October 07, 2021

From: Greg Young, PE

Subject: Revalidation of previously adopted Water Supply Assessments for the Village of Marble Valley, Lime Rock Valley, and Central El Dorado Hills Specific Plans

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On August 26, 2013 El Dorado Irrigation District's (EID or District) Board of Directors approved and adopted Water Supply Assessments (WSA) for three development projects – Village of Marble Valley (VMV), Lime Rock Valley (LRV), and Central El Dorado Hills (CEDH) – hereafter the "Proposed Project(s)" in El Dorado County (County) as a part of each Proposed Project's Specific Plan.[1]

These WSAs assessed the availability and sufficiency of EID's water supplies to meet the Proposed Projects' estimated water demands based on the best available information at that time. The District found sufficient water to meet the demands of each Proposed Project, while also considering the demands of each other Proposed Project as well as all of its other service area demands for at least the next 20 years.

The purpose of this memorandum is to re-evaluate whether changes, if any, to (1) the Proposed Projects' land uses, or (2) updates to EID's water supply and demand analysis, would result in modified conclusions of sufficient water as determined in each WSA in 2013. A key document in this re-evaluation is EID's recently updated 2020 Urban Water Management Plan, which was adopted on June 28, 2021.[2]

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[1] The adopted WSAs can be found on the County website here:
https://www.edcgov.us/Government/planning/specific%20plans/ProposedSpecificPlans/Pages/proposed_specific_plans.aspx
[2] The Final 2020 UWMP can be found on the District website here:
https://www.eid.org/home/showpublisheddocument/5666/637619651261230000

Projected Projects' Land Use Description Updates and Water Demand Forecasts

For the 2013 WSAs, specific land uses were provided for each Proposed Project and used to estimate the water demand of each Proposed Project at build-out. Per communications from El Dorado County through its consultant that is preparing updated CEQA documents for the County's consideration, land uses for VMV and LRV have not changed from representations provided in 2013.[3]

However, CEDH has proposed some minor adjustments. Per the County, the CEDH project has included a variation whereby it may include up to 1,000 residential units if some of the units are age-restricted, but only 737 residential units if no age-restricted units are included.[4] This proposed variation would change the high density land use from 10 to 14 units per acre for non-age-restricted to 22 units per acre for age-restricted, whereby the non-age restricted scenario would include 324 units, and the age-restricted 587 units. Under both scenarios, 37 residential units would have densities less than 1 unit per acre, 156 residential units would be at approximately 5 units per acre, and 220 units would be at approximately 10 units per acre. For comparison, the 2013 CEDH WSA analyzed 1,028 residential units where 65 units were between 0.5 and 1 acre per unit, 123 residential units would be at 5 to 8 units per acre, and 310 residential units would be at 9 to 12 units per acre, and the remaining 530 residential units would be at 15-24 unit per acre. This potential variation does not result in significant difference in forecast water demand for purposes of evaluating overall water demand.[5] And, since the total number of units is consistent with that evaluated for CEDH in the 2013 WSA, the land use assumed in the 2013 WSA is still a valid representation of the Proposed Project.

Overall, the land uses concurrently being considered are equivalent to the land uses evaluated for all three Proposed Projects for the 2013 WSAs, and the total number of proposed dwelling units would be the same as analyzed in the previous drafts of the EIR.

While the land uses are essentially equivalent, a forecast water demand made today using the same land uses may result in an actual lower total build-out demand for each Proposed Project than was calculated in the 2013 WSAs. This would be due to current assumptions about residential and non-residential water use that has been driven by continued statutory, regulatory and common-practice considerations. For instance, since 2013, both the statewide mandatory Green Building Standards Code and the statewide Model Water Efficient Landscape Ordinance

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[3] Email communications from Shahira Ashkar, Managing Director, ICF to Greg Young of Tully & Young on September 15, 2021.

[4] El Dorado County Staff Report at November 14, 2019 Planning Commission Meeting: https://eldorado.legistar.com/View.ashx?M=F&ID=8776221&GUID=F959EE52-F195-4557-AB8B-333C11C66DA1

[5] While both of these designations are considered high-density and thus generally have lower occupancy rates, the 587 units of age-restricted versus 324 units not age-restricted would not result in a substantive quantity of additional water use. For instance, 1.8 people in age-restricted at 55 gallons per person per capita day (gpcd) would equate to 65 acre-feet per year for 587 units. For comparison, assuming 2.3 people in non-age-restricted at 55 gpcd would equate to 46 acre-feet per year for 324 units.

(MWELO) have been modified to require more efficient appliances and fixtures and placed further restrictions on residential and non-residential irrigated landscapes. These factors, as well as a continued conservation ethic among water using customers, has resulted in a lowering of EID's per-capita water demand factors compared to those used for the 2013 WSAs.

Therefore, the land uses for the Proposed Projects represented in the 2013 WSAs are consistent with the current land uses, and the water demand forecasts represented in the 2013 WSAs are likely conservatively high.

2020 Urban Water Management Plan Assumptions and Conclusions

EID recently updated its Urban Water Management Plan (UWMP) to comply with statutory requirements.[6] A primary driver of an UWMP is for an urban water supplier to assess its water service reliability for at least the next 20 years under water supply conditions assumed for hydrologic conditions in normal and single dry years as well as for droughts lasting five years. To make this assessment requires a detailed characterization of an urban suppliers water supply and customer water use conditions well into the future – including recognizing all potential population growth.

Land use and population growth projections in the EID service area were thoroughly analyzed in Chapter 2 of the 2020 UWMP to provide the foundation for estimating customer water demands through the UWMP's planning period of 2045. This demand forecast is the basis for determining water service reliability conclusions.

As detailed in Chapter 2 of the UWMP, expected housing growth was guided by a study commissioned by El Dorado County in 2020 to update housing and job projections to aid with various transportation studies and General Plan refinements. This effort developed growth projections using two categories[7]:

1. Facility Improvement Letters (FILs) – this designation reflects all development projects known to the District at a particular point in time that have formally submitted an initial request for service to EID. A full list of current FILs is available from the District.

2. Future Beyond FILs – this designation reflects additional development beyond the current FILs on existing parcels within Zone 1, 2 and 4 that are greater than 10 acres and are not otherwise designated for any other use.

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[6] California Water Code Section 10610 et seq. require an urban water supplier such as EID to prepare and adopt and UWMP every 5 years. The current cycle required EID to adopt its UWMP and submit it to the California Department of Water Resource by July 1, 2021.

[7] Population and Land Use analysis in the EID service area begins on page 2-10 in the 2020 UWMP.

The analysis projected total Equivalent Dwelling Units (EDUs) expected within the County, where the EDU value represents the number of residential "dwelling units" that each project would reflect regardless of whether the project includes residential or non-residential land uses. This growth was used to determine estimated number of new connections. The connection forecast is used to estimate future water use, as detailed in Chapter 4 of the UWMP.[8]

The VMV, LRV, and CEDH projects were specifically incorporated into the 2020 UWMP using the same EDU representations in the 2013 WSAs.[9] The 2020 UWMP states:

> "…*it is acknowledged by EID that the future water needs of these developments, should they occur within the planning horizon, have been included in the representations of water service reliability detailed in Chapter 5*" of the UWMP.[10]

As required by the California Water Code, EID addressed the reliability of their water supplies to meet demands during average, single dry, and five consecutive dry year conditions, detailing the analysis and results in Chapter 5 of the 2020 UWMP. Importantly, EID concluded it has sufficient water assets to meet its short-term and long-term needs in average, single dry, and five consecutive dry year conditions.[11] As stated in the UWMP Water Supply Reliably Summary on page 5-5:

> *"The District's water supply portfolio is capable of meeting the water uses in its service area in normal, single dry, and five consecutive dry years from 2020 through 2045."*

Considering the Proposed Projects were explicitly included in the 2020 UWMP, and EID determined it has reliable and sufficient water supplies, the determination of sufficiency extends to the consideration of each Proposed Project. This extension is also supported by statute whereby as part of the requirements for a WSA, the California Water Codes states: "*If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f), and (g).*"[12]

In other words, the 2020 UWMP's recent determination provides the equivalent of the findings of the 2013 WSAs that evaluated sufficiency where the Proposed Projects were not previously included in EID's 2010 UWMP.

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[8] Customer water use forecast is on Section 4.4.3 and begins on page 4-15 in the 2020 UWMP.
[9] Table 2-5: Summary of Known Large Development Projects in the 2020 UWMP.
[10] UWMP at p. 2-14.
[11] EID Water system reliability is discussed in Chapter 5 of the 2020 UWMP. Tables 5-2 and 5-3 show supply, demand and surplus water data.
[12] California Water Code Section 10910(c)(2)

Conclusion

As demonstrated in this memorandum and supporting references, the Proposed Projects' land uses have not changed and therefore estimated water use demands would not exceed quantities forecast in the WSAs which were adopted by EID in August of 2013. The 2020 UWMP incorporated these projects specifically into its water supply reliability forecasting and came to the same conclusion as the 2013 WSAs that there is sufficient water service reliability to meet all demands at least 20 years into the future.

Moreover, projected demand could reasonably be determined to be less for the Proposed Projects as calculated in the 2013 WSAs since additional regulations would likely result in a lower demand estimate for the same projects due to more stringent MWELO and residential GPCD estimates.

In summary:

- The original WSAs found water availability and sufficiency for the Proposed Projects through 2035.

- The Proposed Projects are recognized in EID's 2020 UWMP as part of planned future customer demands.

- EID's 2020 UWMP concludes sufficient water supplies for all current and planned future customers through 2045 during normal, single-dry and droughts lasting 5 years.

Therefore, EID's conclusions of water availability and sufficiency to meet the Proposed Projects' estimated water demands as articulated in the 2013 WSAs are still valid, and the 2020 UWMP provides necessary concurrence of these prior conclusions.

Appendix I

CEQA Guidelines Appendix F: Energy Conservation

APPENDIX F:
ENERGY CONSERVATION

I. Introduction

The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:

(1) decreasing overall per capita energy consumption,

(2) decreasing reliance on fossil fuels such as coal, natural gas and oil, and

(3) increasing reliance on renewable energy sources.

In order to assure that energy implications are considered in project decisions, the California Environmental Quality Act requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy (see Public Resources Code section 21100(b)(3)). Energy conservation implies that a project's cost effectiveness be reviewed not only in dollars, but also in terms of energy requirements. For many projects, cost effectiveness may be determined more by energy efficiency than by initial dollar costs. A lead agency may consider the extent to which an energy source serving the project has already undergone environmental review that adequately analyzed and mitigated the effects of energy production.

II. EIR Contents

Potentially significant energy implications of a project shall be considered in an EIR to the extent relevant and applicable to the project. The following list of energy impact possibilities and potential conservation measures is designed to assist in the preparation of an EIR. In many instances specific items may not apply or additional items may be needed. Where items listed below are applicable or relevant to the project, they should be considered in the EIR.

A. Project Description may include the following items:

1. Energy consuming equipment and processes which will be used during construction, operation and/or removal of the project. If appropriate, this discussion should consider the energy intensiveness of materials and equipment required for the project.
2. Total energy requirements of the project by fuel type and end use.
3. Energy conservation equipment and design features.
4. Identification of energy supplies that would serve the project.
5. Total estimated daily vehicle trips to be generated by the project and the additional energy consumed per trip by mode.

B. Environmental Setting may include existing energy supplies and energy use patterns in the region and locality.

C. Environmental Impacts may include:

1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials maybe discussed.
2. The effects of the project on local and regional energy supplies and on requirements for additional capacity.
3. The effects of the project on peak and base period demands for electricity and other forms of energy.
4. The degree to which the project complies with existing energy standards.
5. The effects of the project on energy resources.

6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

D. Mitigation Measures may include:

1. Potential measures to reduce wasteful, inefficient and unnecessary consumption of energy during construction, operation, maintenance and/or removal. The discussion should explain why certain measures were incorporated in the project and why other measures were dismissed.
2. The potential of siting, orientation, and design to minimize energy consumption, including transportation energy, increase water conservation and reduce solid waste.
3. The potential for reducing peak energy demand.
4. Alternate fuels (particularly renewable ones) or energy systems.
5. Energy conservation which could result from recycling efforts.

E. Alternatives should be compared in terms of overall energy consumption and in terms of reducing wasteful, inefficient and unnecessary consumption of energy.

F. Unavoidable Adverse Effects may include wasteful, inefficient and unnecessary consumption of energy during the project construction, operation, maintenance and/or removal that cannot be feasibly mitigated.

G. Irreversible Commitment of Resources may include a discussion of how the project preempts future energy development or future energy conservation.

H. Short-Term Gains versus Long-Term Impacts can be compared by calculating the project's energy costs over the project's lifetime.

I. Growth Inducing Effects may include the estimated energy consumption of growth induced by the project.

Note: Authority cited: Sections 21083 and 21087, Public Resources Code. Reference: Sections 21000-21176. Public Resources Code.

Revised 2009

SUMMARY OF SPECIFIC PLAN POLICIES AFFECTING ENERGY

Appendix K-2

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Policy #	Policy

C.21 AIR QUALITY AND PUBLIC HEALTH

9.51	Installation of open-hearth wood-burning fireplaces shall be prohibited in favor of more energy-efficient and less polluting heating devices using cleaner burning fuels, such as natural gas. All fireplaces and stoves shall be a direct-vent, sealed combustion type~~natural gas fired~~.

C.32 CIRCULATION

4.1	The Plan Area must include choices among methods of transportation, including roadways, bikeways, and pedestrian ways that are well-connected for a walkable community.
4.2	Design the local roadways in the Plan Area as internal systems with two points of access that do not connect to existing roadways in neighboring subdivisions, unless required for Emergency Vehicle Access (EVA).
4.5	Development of the Plan Area shall comply with General Plan Policies TC-Xa through TC-Xi (Measure Y and E) as stated in the County's General Plan, as applicable.

C.65 ENERGY EFFICIENCY

9.11	All buildings shall exceed energy efficiency standards in Title 24, Part 6 of the 2008 California Building Standards Code by a minimum of 15 percent, or achieve the then-current Building Standards Code by a minimum of 5 percent, according to the performance method prescribed in the code (CALGreen Residential: A4.203.1, Nonresidential: A5.203.1; CAPCOA BE-1).
9.12	All buildings should, if feasible, incorporate site design measures that reduce heating and cooling needs by orienting buildings on the site to reduce heat loss and gain, depending on the time of day and season of the year.
9.13	Cool roofing materials shall be encouraged in both residential and nonresidential buildings, consistent with CalGreen Tier 1 voluntary measures (CALGreen A4.106.5 for Residential, A5.106.11.2 for Nonresidential).
9.14	All buildings shall be designed to incorporate the use of high quality, energy-efficient glazing to reduce heat loss and gain.

Policy #	Policy
9.15	All buildings shall include programmable thermostats, home energy management systems, or other similar technologies (CAPCOA BE-2).
9.16	Appliances and any applicable equipment installed prior to occupancy shall be EnergyStar certified, including residential appliances and HVAC systems, nonresidential appliances, office equipment, HVAC, and lighting control systems (CAPCOA BE-4).
9.17	Any covenants, conditions, and restrictions shall allow for the temporary use of clothes lines, drying racks, or similar temporary structures, in order to encourage natural air-drying of laundry and conservation of energy.
9.18	The use of vegetative or man-made shading devices for east-, south-, and west-facing walls with windows shall be encouraged in order to reduce heat gain. Where feasible, wall surface materials shall be minimum SRI 25 (aged), for 75 percent of opaque wall areas (CALGreen A5.106.7).
9.19	All new construction shall obtain third-party commissioning and verification prior to occupancy to ensure that all building systems and components are planned, designed, installed, tested, and operated and maintained to meet the owner's project requirements (CALGreen 5.410.2 for commercial, A4.207.2 for residential; CAPCOA BE-3).
9.20	Lighting in publicly- or commonly-accessed outdoor areas in all Village Residential - Medium, Village Residential - High, Office Park, Commercial, and Public Facilities land use designations shall both minimize energy use and protect dark-sky conditions through the installation of high-efficiency LED or similar lighting with automatic, dimmable controls (CAPCOA LE-1; LE-2).
9.21	Public street-lighting shall be high-efficiency LED (light emitting diode) or incorporate similar technologies, and be designed with automatic, dimmable controls to both minimize energy use and protect dark-sky conditions, as allowed by the local public agency (CAPCOA LE-1).
9.22	Commercial, residential, and public buildings shall be designed to allow for the installation of renewable energy systems including active solar, wind, or other emerging technologies, and shall comply with the following standards: ▪ All buildings shall, at a minimum, be prewired for future solar photovoltaic (PV) system installation. Conduit shall be installed from the building roof or eave to a location within the building identified as suitable for future installation of a charge controller (regulator) and inverter (CALGreen A5.211.4); ▪ Where applicable, rooftop PV arrays or solar water heating systems (SWHS) shall be installed in accordance with the State Fire Marshal safety regulations and guidelines; ▪ Standard rooftop mechanical equipment shall be located in a manner that does not preclude the installation of solar panels;

Policy #	Policy
	▪ Alternative energy mechanical equipment and accessories installed on the roof of a building shall be integrated with roofing materials and/or blend with the structure's architectural form, if feasible; and ▪ Any covenants, conditions, and restrictions shall allow for the installation of appropriate solar energy collection systems or other architectural features to collect, store, or utilize renewable energy on-site, provided that the systems comply with design guidelines and height limits established in the Specific Plan development standards and applicable provisions of the County Code.
9.23	Solar water heating systems, radiant heating systems, or similar types of energy efficient technologies, shall be required in commercial and multi-family buildings, and encouraged in single-family homes and swimming pools, where applicable.

C.109 LAND USE

3.2	Establish new residential uses in a manner that blends densities with existing subdivisions and locate multi-family sites in proximity to existing services or public transit opportunities to minimize automobile use.
9.1	Minimum off-street parking requirements shall be flexible where shared parking arrangements, on-street parking, car-sharing, or other applicable measures or programs lead to reduced peak parking demand (California Air Pollution Control Officers Association (CAPCOA) PDT-1; CALGreen A5106.6 Parking Capacity).
9.2	Short term and long term bicycle parking and support facilities shall be provided in all Village Residential - Medium, Village Residential - High, Office Park, Commercial, and Public Facilities designations, in accordance with CALGreen Nonresidential Tier 1 Voluntary Measures (see CALGreen A5 106.4; CAPCOA SDT-6 and 7).
9.3	Off-street parking in all Village Residential - Medium, Village Residential - High, Office Park, Commercial, and Public Facilities land use designations shall include a minimum number of dedicated public parking spaces for Low-Emitting and Fuel-Efficient Vehicles[1], in accordance with CALGreen Nonresidential Tier 1 Voluntary Measures (see CALGreen A5.106.5.1 for specific standards).
9.4	Off-street parking in all Village Residential - Medium, Village Residential - High, Office Park, Commercial, and Public Facilities designations shall provide some dedicated parking for plug-in electric vehicles (PEVs) and install minimum Level 2 PEV charging stations in each dedicated PEV parking space, in accordance with CALGreen Nonresidential Tier 1 Voluntary Measures (see CALGreen A5.106.5.3 for specific standards; CAPCOA SDT-8).

[1] See CALGreen Section 5.102 for full definition of Low-Emitting and Fuel Efficient Vehicles.

Policy #	Policy
9.5	Off-street parking in private garages or other dedicated enclosed off-street parking spaces in all Village Residential - Low and Village Residential - Medium designations are encouraged to be pre-wired for future installation of minimum Level 2 PEV charging stations, in accordance with Section 406.7 of the California Building Code.
9.6	Electrical outlets shall be provided along the front and rear exterior walls in all Residential designations to allow for the use of electric landscape maintenance tools (CAPCOA A-3).
9.7	The use of "cool pavement" materials will be encouraged, where feasible and subject to the approval of the local agency, in the designs and specifications for all paved surfaces, including, but not limited to, sidewalks, driveways, parking lots, and streets; thereby reducing surface temperatures and radiant heat from paved surfaces. Cool pavements include those meeting Solar Reflectance Index (SRI) values of 29 or greater (LEED-ND GIB Credit 9: Heat Island Reduction).
9.8	Trees shall be interspersed throughout all parking lots so that in fifteen (15) years, fifty (50) percent of the parking lot will be in shade at high noon. At planting, trees shall be equivalent to a 15 gallon container or larger. Fire access roadways in parking areas will have a required fifteen feet vertical clearance.
9.9	Solar canopies, intended to both shade parking lots and generate renewable energy, shall be encouraged.

C.121 MOBILITY AND CONNECTIVITY

4.6	Develop a cohesive pedestrian network of public sidewalks and street crossings that make walking a convenient and safe way to travel. Provide direct links between streets and major destinations within the Plan Area, such as future transit stops, schools, parks, and shopping centers, when feasible.
9.10	The Master Owners' Association (MOA) shall work with area residents, businesses, and other interested parties, such as the Highway 50 Corridor TMA, to create or participate in a transportation management association (TMA), and prepare and implement a multi-strategy Transportation Management Plan (TMP) for the Plan Area. The TMP shall incorporate transportation demand management strategies as described in Section 9.4.2 (Transportation -Demand Management), and will be managed through the TMA, as administered by the MOA or other similar organizations (CAPCOA TRT-1 through TRT-15).

Policy #	Policy

C.165 POTABLE WATER, RECYCLED WATER, WASTEWATER, AND DRY UTILITIES

8.1	Design and construct the necessary potable water, recycled water for irrigation (if economically and physically feasible), wastewater, and storm water infrastructure required to serve the Plan Area. All infrastructure improvements shall follow the conceptual Water, Wastewater, Recycled Water, and Storm Water Master Plans, and shall be constructed in sequence to meet the immediate needs of individual development projects.
8.2	Final master utility plans for water, recycled water (if economically and physically feasible), and wastewater shall be reviewed and approved by EID in a Facility Plan Report (FPR) at the improvement plan stage.
8.3	Final master utility plans for dry utilities (gas, electric, telephone, and cable) shall be reviewed and approved by the appropriate public utility purveyor in joint trench designs and composite plans at improvement plan stage.

C.176 PUBLIC SERVICES *(Fire Protection, Solid Waste Collection, Schools, and Parks)*

7.285	All construction projects shall be consistent with the County's Construction and Demolition Debris Diversion Ordinance to reuse or recycle a minimum of 65 percent (consistent with Policy 9.29 of this Specific Plan) of construction and demolition debris.
7.296	Green waste service for residential units shall be provided to the maximum extent feasible, and as determined by the El Dorado Hills CSD's Multi-Cart program and franchise agreement with El Dorado Disposal.

C.187 SHCOOLS, PARKS, AND RECREATION

3.10	Provide private neighborhood parks and public village parks at an overall minimum standard of 5 acres per 1,000 residents, linking them to residential areas and activity centers through a network of sidewalks, bike paths, and trails.
3.11	All multi-family and high-density residential sites are encouraged to incorporate on-site recreational amenities for their residents.
5.16	Connect the land uses in the Central District with walking trails, sidewalks, and bike paths to reduce automobile trips and facilitate healthy lifestyles.
7.4	Link schools to the pedestrian trail and bicycle path network to encourage non-motorized transportation.
7.76.1	To promote walking and cycling, village and neighborhood parks shall be connected to the pedestrian and bicycle network.

Policy #	Policy
7.8~~6.2~~	Locate neighborhood parks reasonably central to the neighborhoods they are intended to serve.
7.13~~6.7~~	Village parks shall be located adjacent to public arterial or collector roadways, and where feasible, adjacent to public schools to promote joint-use facilities.
7.17~~6.12~~	Master plans shall be prepared for all public village parks and shall include a lighting plan, if applicable.
~~6.13~~7.18	All park lighting fixtures shall be shielded and energy efficient.
~~6.14~~7.19	Design and landscape parks to provide shade, easy maintenance, and water efficiency.

C.20~~19~~ TRAFFIC CALMING

4.9	Reduce vehicular speed by designing local roads with narrower traffic lanes, roundabouts, well-marked pedestrian crossings, bulb-outs, or median treatments to improve pedestrian travel and comfort. Any such traffic calming device must be reviewed and approved by the local fire protection district.

C.21~~0~~ WASTE REDUCTION AND RECYCLING

9.24	Residential construction shall incorporate foundation systems, which result in not less than a 20 percent reduction in cement use in the foundation mix design through use of fly ash, slag, silica fume, or rice hull ash (CALGreen Residential A4.403.2).
9.25	Nonresidential construction shall use cement and concrete made with recycled products (CALGreen Nonresidential A5.405).
9.26	Residential and nonresidential construction shall incorporate efficient framing techniques, where applicable (Residential: CALGreen A4.404, Nonresidential: A5.404.1).
9.27	Residential and nonresidential construction shall incorporate sustainably-sourced, regional, bio-based, and reused materials, where applicable and available (CALGreen Res. A4.405 and Nonres. A5.405; CAPCOA MISC-3).
9.28	Prior to construction, applicants shall prepare a construction waste management plan for individual construction projects, in accordance with local and state requirements (El Dorado County C&D Waste Ordinance; CALGreen mandatory measures 4.408, 5.408).

Policy #	Policy
9.29	A minimum of 65 percent of the non-hazardous construction waste generated at a construction site shall be recycled or salvaged for reuse (CALGreen A4.408.1; CAPCOA SW-2).
9.31	One hundred percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing associated with subdivision construction shall be reused or recycled, to the extent feasible (CALGreen Mandatory Measure 5.408.4).
9.32	Any covenants, conditions, and restrictions shall allow for on-site composting of residential yard waste and non-hazardous household food waste.
9.33	On-site reuse of compost and mulch shall be encouraged in privately-owned gardens and landscaping or within common landscaped areas in the Plan Area.
9.34	On-site composting of commercial food waste, landscaping green waste, and other forms of organic waste shall be encouraged in all Office Park, Commercial, and Public Facilities designations, in accordance with any applicable local and state regulations.
9.35	Easily-accessible, screened, and well-maintained recycling and composting areas shall be provided for the depositing, storage, and collection of all non-hazardous recyclable or compostable materials (including paper, plastic, glass, metal, and yard and food waste).

C.2~~1~~2 WATER CONSERVATION

9.36	Residential indoor water use shall be reduced by a minimum of 20 percent from the 2008 Plumbing Code baseline as demonstrated by the prescriptive fixture-based method or according to a water use baseline, or achieve the then-current Plumbing Code in effect at the time of construction, in accordance with CALGreen Mandatory Measures (CALGreen Residential 4.303 and Nonresidential 5.303; CAPCOA WUW-1).
9.37	Nonresidential indoor water use shall be encouraged to be reduced by a minimum of 30 percent as demonstrated by the prescriptive fixture-based method or according to a water use baseline, in accordance with CALGreen Nonresidential Voluntary Tier 1 Measures (CALGreen Nonresidential A5.303; CAPCOA WUW-1).
9.38	Maximum flow rates for residential kitchen sink faucets shall not be greater than 1.5 gallons per minute at 60 psi (CALGreen Residential A4.303.1; CAPCOA WUW-1).
9.39	Waterless urinals and toilets shall be encouraged in all Office Park, Commercial, and Public Facilities buildings, where applicable (CALGreen Residential A4.303.2; CAPCOA WUW-1).

Policy #	Policy
9.40	A backbone recycled water system shall be designed and installed throughout the Plan Area to supply recycled water to residential yards, commercial landscaping, park sites, landscape corridors, vineyards, and other landscaped spaces (CAPCOA WSW-1; EID Board Policy 7010).
9.41	Nonresidential buildings and facilities shall be dual-plumbed for potable and recycled water systems for toilet flushing when indoor recycled water is available for use, if allowed by the enforcing authority (CALGreen A5.305.5).
9.42	Outdoor water conservation measures shall include weather-based irrigation controllers, low-water consumption irrigation systems, the establishment of water budgets, and other measures where applicable (CALGreen Residential 4.304 and A4.304, Nonresidential 5.304; CAPCOA WUW-3,4).
9.43	Hydro-zoning techniques shall be incorporated into landscape designs for all post-construction landscapes (CALGreen A4.106.3; CAPCOA WUW-3).
9.44	A minimum 75 percent of the Plan Area planting palette shall feature California Central Valley and foothills native plant species as described in the most current edition of River-Friendly Landscape Guidelines and drought tolerant adaptive plant species (CALGreen A4.160.3; CAPCOA WUW-3, -5, -6). Neighborhood entry gateways and similar high visibility locations in the Plan Area may feature conventional ornamental or agricultural plant species.
9.45	Consistent with CALGreen Tier 2 voluntary measures, all non-public uses within the Plan Area shall limit the use of turf to no more than 25 percent of the total landscaped area (CALGreen A4.106.3; CAPCOA WUW-5).
9.46	The use of turf is not allowed on slopes greater than 25 percent where the toe of the slope is adjacent to an impermeable hardscape (Model Water Efficient Landscape Ordinance, Section 492.6).

Appendix J

Drainage Analysis

Draft

MARBLE VALLEY

STORM DRAIN MASTER PLAN

August 17, 2014

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MARBLE VALLEY STORM DRAIN MASTER PLAN

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OVERVIEW

The Village of Marble Valley, henceforth called Marble Valley is located south of Highway 50, about 3 miles east of El Dorado Hills and southwest of Cameron Park. Marble Valley is a 2,341 acre comprehensively planned community which will include a mixture of residential densities, commercial, agriculture, schools, parks and open spaces. At build-out, Marble Valley will accommodate as much as 3,236 dwelling units and 1,284 acres of natural open space. The open space element will comprise fifty-five percent of the projects total acreage. Higher density residential and commercial development will be located on the valley floor and lower density residential will be located on the surrounding wooded slopes. See Figure 1, Location Map.



Figure 1. Location Map of Marble Valley

Most of the development area is located within the Marble Creek watershed. The terrain is moderately steep with the creek flowing from Highway 50 southeast to its confluence with Deer Creek. Deer Creek drains south through Cameron Park and continues southerly for about two miles after crossing under Highway 50. It then turns and flows to the southwest, discharging into the Cosumnes River upstream of Highway 99.

Portions of the proposed development extend beyond the ridge lines of Marble Valley. To the east, relatively small areas drain to Deer Creek. To the west, relatively small areas drain to Strap Minor Creek and Pluckett Creek, both small watersheds that discharge into Deer Creek, just upstream of Latrobe Road.

The original conceptual design was to attenuate runoff to predevelopment conditions using several small dry basins to mitigate peak flows from specific areas of development. Another option was to utilize the large quarry that is located in the upstream portion of Marble Creek. After some preliminary modeling, key information supported a simpler approach.

Rather than constructing several small basins, all of the flood attenuation will be done at the most downstream road crossing over Marble Creek. The crossing is needed for development, and the temporary storage upstream of the road embankment is readily available. This crossing provides adequate attenuation for all of the Marble Valley development.

At this time, there is not enough design information to provide meaningful water quality facilities. It is expected that Site Design Water Quality Measures will provide additional attenuation and flow reduction through the developed areas of the project.

ANALYSIS

The purpose of this study was to analyze the drainage systems and determine facilities that will provide attenuation sufficient such that developed flows are equal to or less than existing conditions and there will be no increase in flood potential downstream of the project. It should also be noted that drainage facilities within the several development areas have not been evaluated because there is no site development information at this time.

Three scenarios were evaluated identified as A, B and C. Scenario A is Existing Conditions. Scenario B is based on the assumption that both Marble Valley and Lime Rock Valley are fully developed with attenuation at the road crossing described above. Scenario C is based on the assumption that Marble Valley is developed with no changes within Lime Rock Valley and the same road crossing as described above is used for attenuation.

Three design storms, the 2.33 year, the 10-year, and the 100-year, were used for the analysis. The 2.33 year storm was used because rainfall data were available. It is only slightly larger than the 2-year storm which typically would have been included if rainfall data were readily available.

SOFTWARE

Both the hydrologic and hydraulic analyses are based on procedures outlined in the County of El Dorado Drainage Manual, adopted 3-14-95. The modeling software that was used is from XP SWMM and does both hydrograph generation and hydraulic routing.

The XP-SWMM is a dynamic program, based on the EPA SWMM, with numerous improvements. The model will generate subshed runoff hydrographs and then route those hydrographs through the conveyance facilities, tracking and accounting for all of the runoff as it travels downstream for the duration of the storm. Time steps are typically between 3 to 30 seconds.

The XP-SWMM software is graphics based with numerous error routines and graphic aids to assist the modeler. The runoff model has numerous hydrologic methods available to generate runoff hydrographs. The hydraulics module transports the computed subshed runoff through any configuration of open and closed conduits, storage/treatment devices, pumps, and regulators. XP-SWMM is approved by FEMA for use to update or complete Flood Insurance Studies. Sacramento County uses XP-SWMM extensively.

HYDROLOGY

Main Stem of Deer Creek

There were two gages along Deer Creek where peak flow data were collected in the past and one gage identified as Deer Creek at Cameron Park where more recent peak flow data are available. The earlier two gages are Deer Creek near Shingle Springs and Deer Creek near Sloughhouse. The Sloughhouse gage is downstream of the confluence of Marble Valley Creek and Deer Creek while the other two are upstream of the confluence. Figures 2, 3, & 4 are plots of the respective peak flows at the three gages.

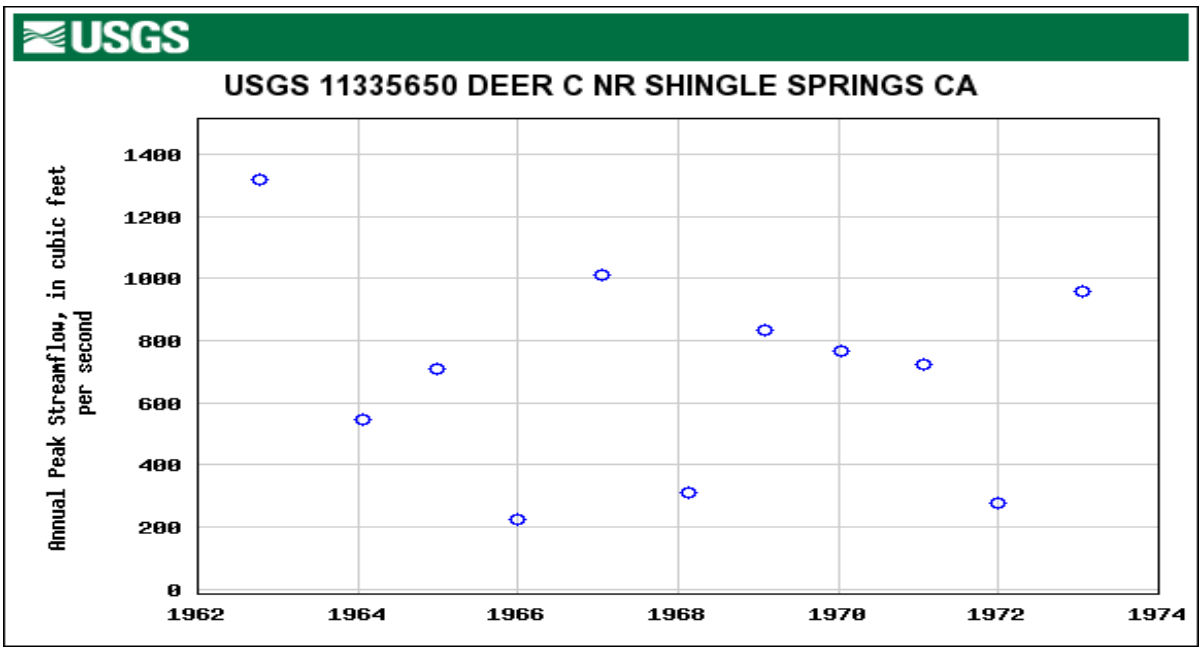


Figure 2. Peak Flows along Deer Cr near Shingle Springs, Gage #11335650, DA= 6.62 sq. mi.

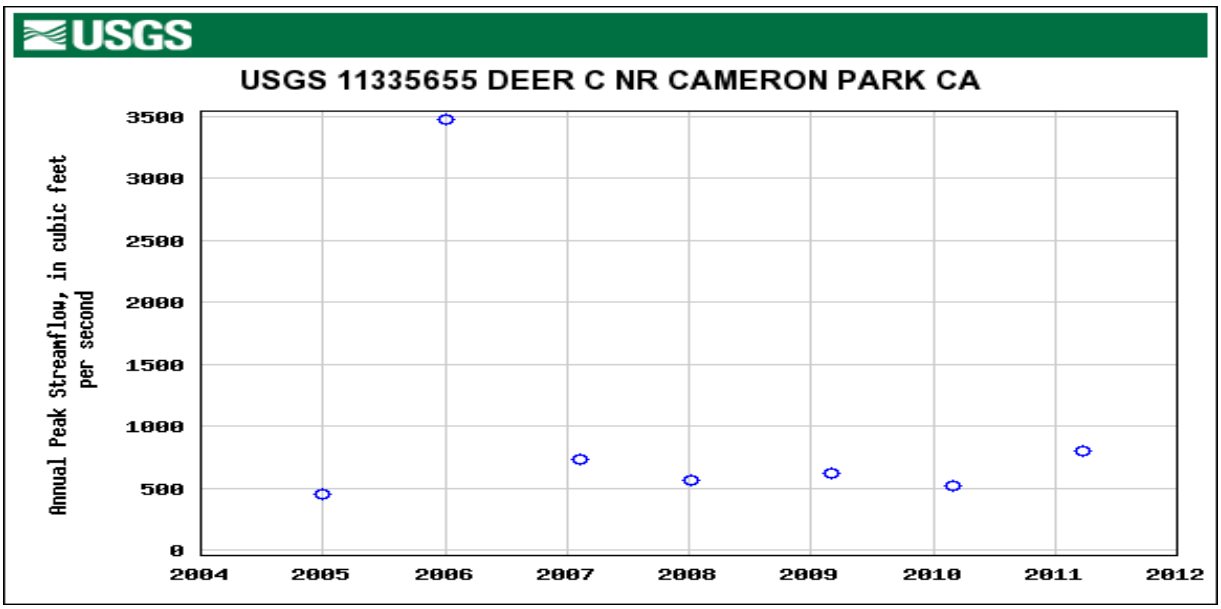


Figure 3. Peak Flows along Deer Creek near Cameron Park, Gage # 11335655, DA= 10.3 sq. mi

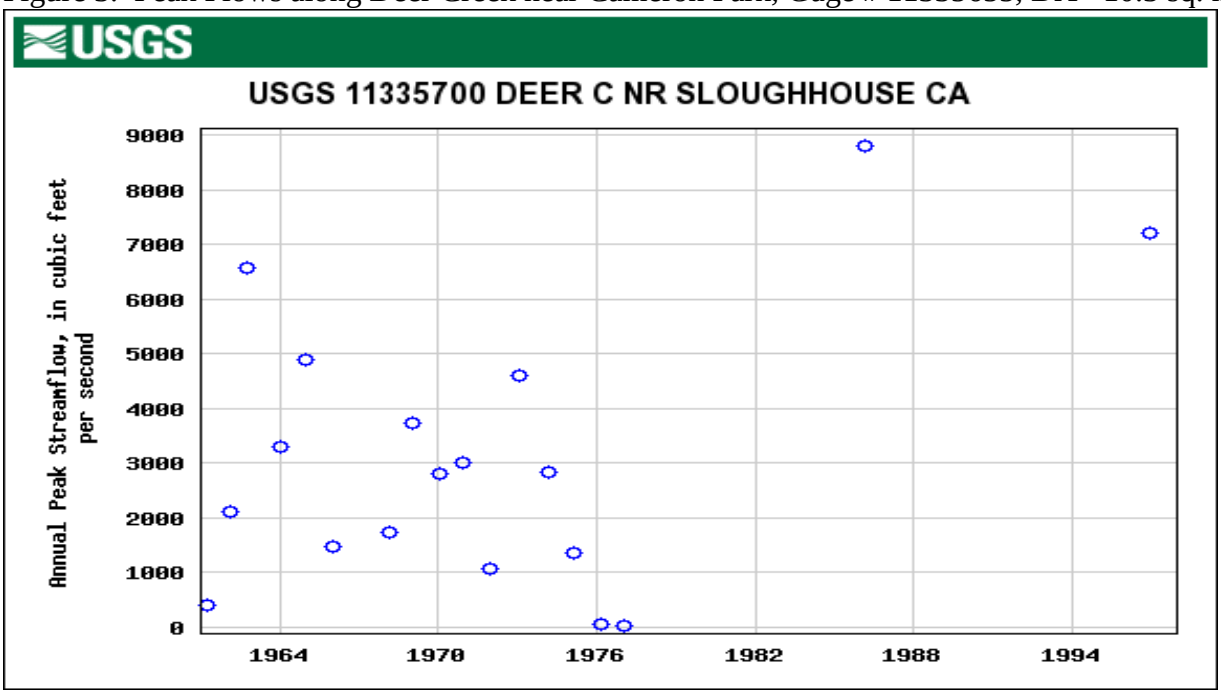


Figure 4. Peak Flows along Deer Creek near Sloughhouse, Gage # 11335700, DA=46.0 sq. mi.

Flood frequency data were also available at two of the gages. The statistical 100-year peak flow estimates, using Bulletin 17B (standardized flood-frequency analysis techniques) are 1,820 cfs at the Shingle Springs gage and 10,800 cfs at the Sloughhouse gage.

Subshed Analysis

The SCS Curve Number methodology was used within the XP-SWMM software to generate runoff hydrographs from the selected subsheds. Thirty-one subsheds were used to define the runoff

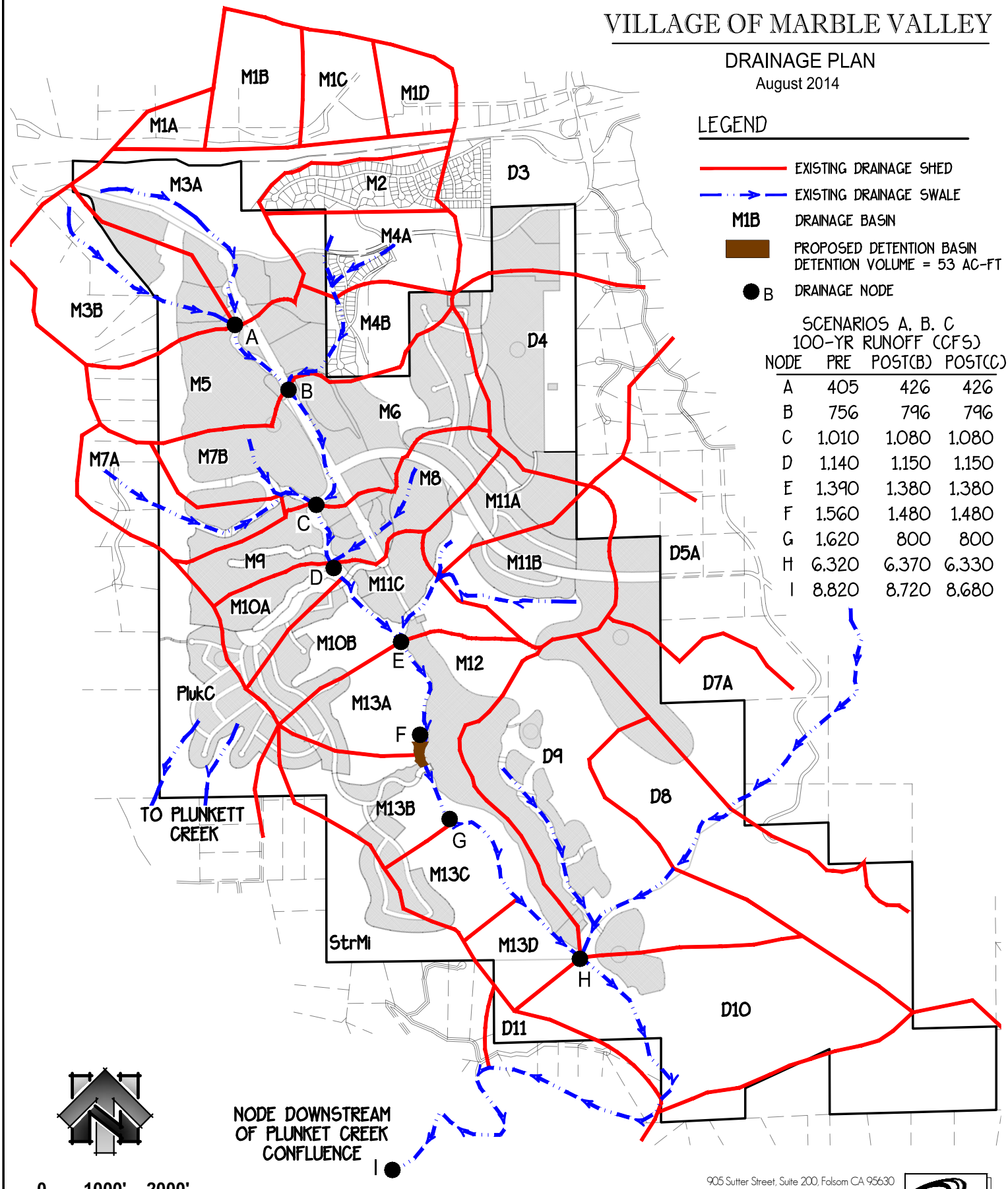
hydrographs from the Marble Valley development area. An additional thirteen sheds were modeled to define tributary areas of Deer Creek and Marble Creek upstream of the development.

Type D soils were assumed in all cases based on SCS soils information, the relatively steep slopes, and visual evidence of hard rock at or near the land surface. Soils are mostly within the Auburn series, silt loams, about 1 to 2 feet thick on bedrock. The hydrologic classification is Type D soils, low permeability. A curve number (CN) of 84 was used for all undeveloped areas based on interpretation of Table 2-2a from Soil Conservation Service-Technical Release 55.

There are several methods to compute time-of-concentration and/or catchment lag. Several methods were evaluated, and as expected, results varied because of the variety of slopes and shapes of the subsheds. Rather than select one of the methodologies, the modeler used the USGS Regional Flood-frequency Equations (Table A2.4.1, El Dorado County Drainage Manual) as a guide to determine a peak flow within the SCS hydrograph. Trial and error was used to select lag times that seemed reasonable and generated hydrographs with peak flows similar but generally larger compared to the peaks computed from the regression equation.

Locations of the shed boundaries are shown on Map 1, Shed Area Map. Table 1 provides a summary of basin parameters and 100-yr peak flows for existing and developed conditions.

MAP 1
VILLAGE OF MARBLE VALLEY
DRAINAGE PLAN
August 2014



LEGEND

- EXISTING DRAINAGE SHED
- EXISTING DRAINAGE SWALE
- M1B DRAINAGE BASIN
- PROPOSED DETENTION BASIN DETENTION VOLUME = 53 AC-FT
- B DRAINAGE NODE

SCENARIOS A, B, C
100-YR RUNOFF (CFS)

NODE	PRE	POST(B)	POST(C)
A	405	426	426
B	756	796	796
C	1,010	1,080	1,080
D	1,140	1,150	1,150
E	1,390	1,380	1,380
F	1,560	1,480	1,480
G	1,620	800	800
H	6,320	6,370	6,330
I	8,820	8,720	8,680

0 1000' 2000'

SCALE IN FEET

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Civil Engineers / Land Surveyors

Table 1, Summary of Hydrologic Parameters

	Existing Conditions					Developed Conditions				Changes from Development			
Node Name	Area (ac)	100-yr Max Flow cfs	% Imprv	Perv. Curve #	Time of Conc (min)	Source	% Imprv	Time of Conc (min)	100-yr Max Flow cfs	% Imprv Increase	Time of Conc De-crease (min)	Pk Flow Increase (cfs)	Node Name
D1	4,356	2,547	25	84	190								D1
D2	1,254	911	25	84	133								D2
D3	381	329	15	84	92	M	20		336	5		7	D3
D4	651	499	10	84	109	M	13		506	3		7	D4
D5a	142	139	2	84	66	B	12	61	152	10	5	13	D5a
D5b-2+	1,939	1,200	5	84	150	L	6		1,206	1		6	D5b-2+
D6a-2+	569	430	2	84	105	L	4		434	2		4	D6a-2+
D6b-18+	220	198	2	84	77	L	25		219	23		21	D6b-18+
D6c-24+	72	81	2	84	51	L	30		91	28		10	D6c-24+
D6d-48+	696	507	2	84	112	L	10		526	8		19	D6d-48+
d121+3+D6e	110	113	2	84	60	L	20		123	18		9	d121+3+D6e
D7a	118	119	2	84	62	M	7		122	5		3	D7a
D7b	315	268	2	84	85	B	5	80	281	3	5	13	D7b
D8	173	164	2	84	70	M	5		166	3		2	D8
D9	259	228	2	84	80	M	13	78	243	11	2	15	D9
D10	238	210	2	84	80	M	5		213	3		3	D10
D11	1,768	1,098	2	84	146								D11
D12	687	503	2	84	111								D12
							If blank, no change to basin parameter.						
M1a	23	31	2	84	33								M1a
M1b	65	75	2	84	48								M1b
M1c	39	49	2	84	41								M1c
M1d	55	65	2	84	46								M1d
M2	51	63	10	84	45								M2
M3a	150	144	2	84	68	M	11	63	157	9	5	12	M3a
M3b	134	132	2	84	65	M	10		137	8		5	M3b
M4a	70	79	2	84	50	M	8	47	84	6	3	5	M4a
M4b	110	113	2	84	60	M	10	55	123	8	5	10	M4b
M5	87	94	2	84	55	M	21	50	107	19	5	13	M5
M6	107	111	2	84	59	M	32	49	139	30	10	28	M6
M7a	102	107	2	84	58	M	15		113	13		6	M7a
M7b	45	55	2	84	43	M	21	38	63	19	5	8	M7b
M8	65	75	2	84	48	M	38.2	38	97	36.2	10	22	M8
M9	40	49	2	84	42	M	32	35	60	30	7	11	M9
M10a	42	52	2	84	42	M	27	38	60	25	4	9	M10a
M10b	55	65	2	84	46	M	22	41	75	20	5	10	M10b
M11a	46	55	2	84	44	M	26	39	65	24	5	9	M11a
M11b	96	102	2	84	57	M	22	52	116	20	5	15	M11b
M11c	50	60	2	84	45	M	15	40	67	13	5	7	M11c
M12	95	102	2	84	56	M	13		107	11		5	M12
M13a	71	80	2	84	50	M	10	47	86	8	3	6	M13a
M13b	62	72	2	84	47	M	12	44	78	10	3	6	M13b
M13c	52	62	2	84	45	M	8	42	66	6	3	4	M13c
M13d	44	54	2	84	42	M	5	40	56	3	2	2	M13d
PluktCr	1,078	728	2	84	127	M	4		735	2		7	PluktCr
StrpMinr	359	296	2	84	90								StrpMinr
Totals	17,141	12,516				M= Marble Valley, L= Lime Rock Valley, B= Both							

In addition to the 100-year flows, the 2-yr and 10-yr flows were also determined and routed through the conveyance system. Appendix A provides a summary of the 2-,10-, and 100-year flows.

Please note that the regression equation shows a rapid decrease in unit runoff as shed size increases. The modeler was more comfortable with the larger flows. However, the results of the comparative analysis between existing and developed conditions should be similar.

HYDRAULICS

Most of the Marble Valley development drains to Marble Creek. Several small subsheds east of a ridge line drain to Deer Creek. There are also small Marble Valley subsheds that drain west into Strap Miner Creek or Plunkett Creek, which in turn, drain into Deer Creek.

A moderate increase in runoff is expected when Marble Valley develops. Normally, measures are taken to not increase downstream water levels to avoid impacts to downstream development. In this case, there is no development and there are no structures along Marble Valley Creek. Therefore, there would be no local impacts if the runoff increased and water levels were higher.

However, there is development along Deer Creek farther downstream. Therefore, the design of the drainage facilities will be to attenuate the Marble Valley development flows to equal or less than development flows measured downstream of the confluence of the Marble Creek development with Deer Creek which is just downstream of the confluence of Plunkett Creek with Deer Creek.

The goal of the attenuation is to mimic existing conditions or to reduce downstream flows if there are existing flooding issues downstream of the development. The analysis for the proposed attenuation focused on the 100-year storm because that is the size of storm that is most likely to impact downstream properties. The 2- and 10-year storms were also routed through the proposed facilities.

Results of the 2- and 10-year storm analyses indicate there is less attenuation compared to the 100-year analysis. This is mainly because the culvert sizing needs to be sufficiently large to safely pass the 100-year storm and the smaller storms pass more quickly. A smaller culvert would improve the attenuation during the smaller storms but would also generate greater upstream storage during the 100-year storm. This tradeoff was evaluated, but the culvert configuration was based solely on the design to safely pass the 100-year storm.

As stated earlier and currently not defined, Site Design Measures will be implemented as the development proceeds. These measures will reduce peak flows and volumes of smaller storms. The reductions will tend to mitigate the flow increases expected as a result of development. This is a secondary reason to focus the culvert design on the 100-year storm rather than any lessor storm.

These facilities would be part of the southern road crossing within the Marble Valley development at channel stationing 135+75. Preliminary facilities include a 7’ wide by 5’ high box culvert to attenuate the flows leaving Marble Valley and the flow along Deer Creek downstream of Plunkett Creek.

Please note that because of the timing of the peak flows along both Deer Creek and Marble Valley Creek, coupled with inflow from several side tributaries, significant attenuation is needed to attenuate the downstream peak of Deer Creek. The inflow upstream of the road embankment is approximately 1,450 cfs during the 100-year storm, and the outflow through the box culvert is about 800 cfs. Maximum upstream water depth is 30 feet, and the temporary storage is about 53 acre-feet. The storage area upstream of the road embankment fills and empties in about six hours. The major benefit of this approach is that detention facilities within Lime Rock Valley would not have to be constructed or maintained.

As a separate note, the depth and temporary storage at this proposed site would exceed Dam Safety requirements if applicable. Review of the regulations and a phone conversation with personnel at the Division of Dam Safety indicated that rail, roadway, and highway embankments are exempt from the regulation.

There is typically additional runoff from developed impervious surfaces. Table 2 provides a summary of the volumes of runoff for both existing and developed conditions. The developed conditions volume does not include any reductions gained from Design Site Measures that will be part of the development but are unknown at this time. Note that the runoff volumes are from the entire Deer Creek shed area. Subshed volumes are available if needed.

Table 2. Summary of Storm Volumes

Storm Event	Exist Cond Vol (af)	Dev. Cond Vol. (af)	Increase (af)
2-yr	1,544	1,570	26
10-yr	2,917	2,951	34
100-yr	4,848	4,889	41

It is expected that the development of Lime Rock Valley will occur concurrently or after Marble Valley develops. Because of the timing of flow peaks along Deer Creek in relation to the tributary peaks, it was determined that the attenuation along Marble Valley Creek would also be efficient to mitigate higher development flows from Lime Rock Valley. As such, two scenarios were compared to existing conditions. Scenario A is Existing Conditions. Scenario B is based on the assumption that both Marble Valley and Lime Rock Valley are fully developed. Scenario C is based on the assumption that Marble Valley is developed with no changes within Lime Rock Valley.

Please note that the culvert and embankment configuration at the road crossing was the same for both Scenarios B and C. As development proceeds, there may be a need or desire to "fine-tune" the culvert design. However, at this time in the development process, the proposed culvert would be adequate for either Scenario B or C.

Table 3 provides flow for existing and developed conditions at selected locations to show there will be no increase of flow along Deer Creek as a result of the Marble Valley development (Scenario B). **Map 1** provides flow information for both existing and developed conditions for the 100-year storm along the main stem of Marble Valley Creek and Deer Creek downstream of the confluence of Marble Valley Creek, also for Scenario B.

Table 3. Summary of 100-yr Flows at Select Locations for Scenario B

Description	Drainage Area (sq mi)	Model ID/ Chnl Stationing	Exist Flow (cfs)	Dev w/ Attenuation (cfs)
Deer Cr US of Marble Valley Cr Confluence	11.7	d180-185	5,490	5,530
Marble Valley Cr US of Confluence	2.74	175-179	1,700	860
Deer Cr DS of Confluence w/ MV Cr	14.4	d185-190	6,320	6,370
Deer Cr DS of confluence w/ Plunkett Cr-	26.8	DrCrDS	8,820	8,730

Table 4 provides similar information under Scenario C conditions. The peak flows are essentially the same at the critical analysis point downstream of the confluence with Plunkett Creek.

Table 4. Summary of 100-yr Flows at Select Locations for Scenario C

Description	Drainage Area (sq mi)	Model ID/ Chnl Stationing	Exist Flow (cfs)	Dev w/ Attenuation (cfs)
Deer Cr US of Confluence	11.7	d175-180	5,490	5,490
Marble Valley Cr US of Confluence	2.74	175-179	1,700	860
Deer Cr DS of Confluence w/ MV Cr	14.4	d185-190	6,320	6,390
Deer Cr DS of confluence w/ Plunkett Cr-	26.8	DrCrDS	8,820	8,680

Appendix B provides 2- and 10-year flow information at the same key locations. The attenuations are less compared to the 100-year flows. However, the water level increases are very small (0.1 feet or less) and are not considered significant because these water levels are lower compared to the 100-year water levels.

Note that the 100-year peak flow computed in this analysis, if projected downstream to Sloughhouse, would be larger compared to the flood frequency information presented earlier that was based on the Bulletin 17B procedures. Based on comparatively more intense rainfalls over the last 10-20 years, the higher peak flows from the XP SWMM modeling will be used.

The defined 100-year floodplain along Marble Valley Creek for developed conditions is shown on **Map 2** of this report. Appendix C provides additional modeling information. Electronic copies of the modeling files are available upon request.

WATER QUALITY

Water quality Best Management Practices (BMPs) will be implemented on a parcel by parcel basis to adhere to the most current NPDES Phase II Small MS4 General Permit and El Dorado County Storm Water Quality Standards, effective at the time of parcel entitlement. Lacking detailed parcel specific site plans, grading and utility design during the Specific Plan process, it is impossible to quantify, or identify locations of, specific Low Impact Design (LID) elements, Treatment Control Measures and Hydromodification Control Measures.

These measures are best implemented during the tentative map planning stage as more detailed, parcel specific, design information becomes available to assist in developing LID credits, to determine treatment control and hydromodification control extent or necessity.

Water quality Best Management Practices will be utilized to reduce urban runoff pollution to the maximum extent practicable.

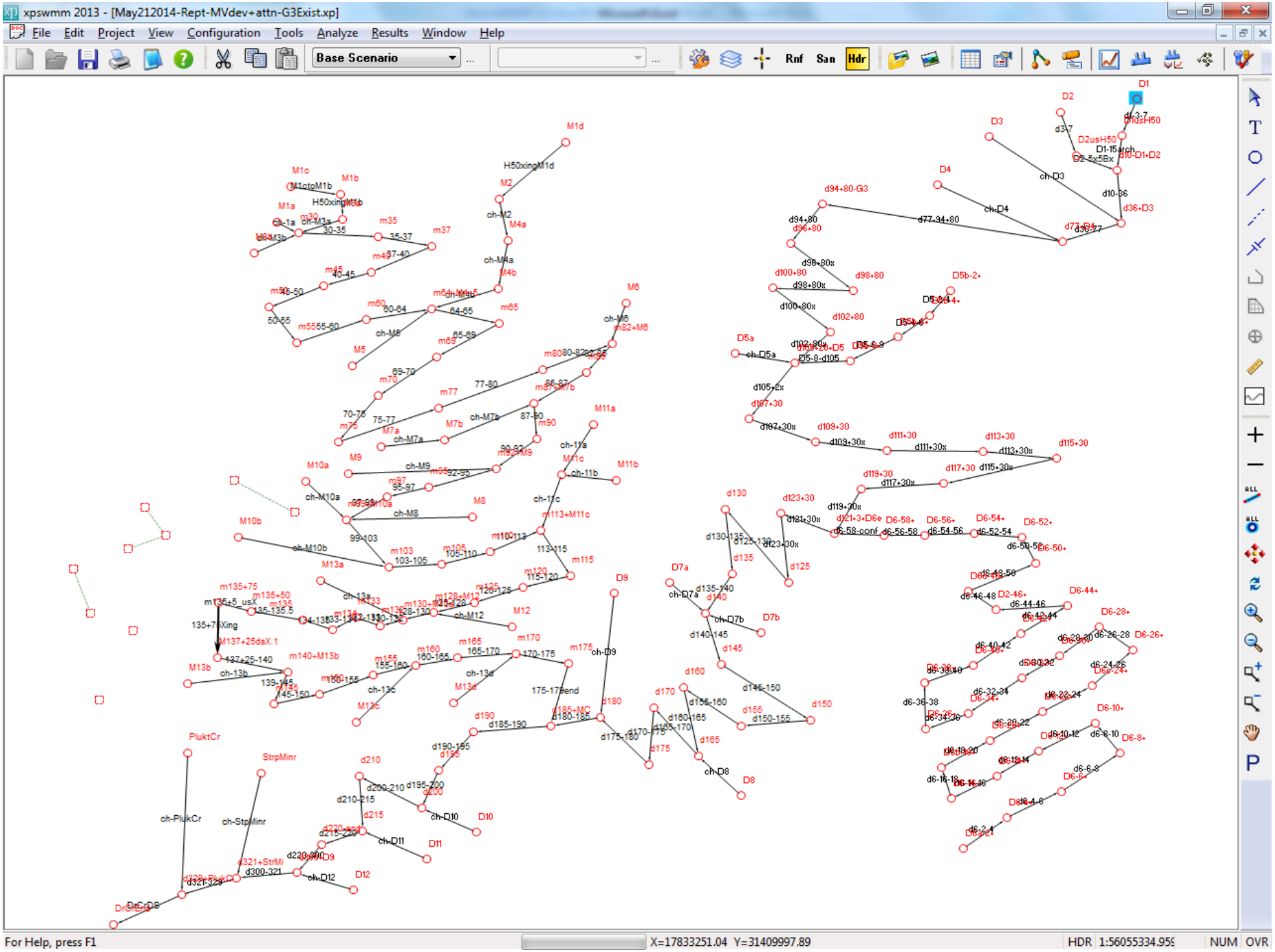
DISCUSSION

As described earlier, the attenuation will be provided at the downstream road crossing. The downstream crossing will have a single box culvert, 5 feet high and 7.2 feet wide. Two additional design features are described. When the road crossings are in preliminary design, a second high-level culvert will be part of the embankment for each crossing, located at the 100-year water level at the upstream side of the embankment. This will act as an emergency spillway in an extreme event larger than the 100-year storm or if debris restricts high flow.

The second design feature is erosion control at the culvert outlets. The flow velocity in the culvert will be very high, and a rock rip rap erosion facility is recommended. The rock will probably include three layers, each layer having larger rock towards the surface. The erosion control configuration should be based on Corps of Engineers design criteria.

Timing of peak flows is very important for this project, and the model analysis is based on several simplifying assumptions. The rainfall intensity, distribution, and duration are all based on standard modeling procedures. Different storm shapes will generate different hydrograph shapes. In addition, the shape of the runoff hydrograph is also dependent on subshed characteristics and time of concentration.

The road crossings provide significant attenuation along Marble Creek and moderate attenuation along Deer Creek. If the time of concentration for the mainstem of Deer Creek is quicker than modeled, then the attenuation at the road crossings will be greater along Deer Creek than presented herein. If the estimated time-of-concentration for the mainstem is longer, the effect of the Marble Creek flows is less important, and the proposed development will not cause an increase in flood potential along the downstream reaches of Deer Creek.



Appendix A1: Modeling Map

Node Name	Area (ac)	Storm Freq (yrs)	Max Q (Exist) (cfs)	Max Q (LRV Dev) (cfs)	Increase from LRV Dev (cfs)	Max Q (LRV + MV Dev) (cfs)	Increase from MV Dev (cfs)
D1	4356	2	826	826		826	
D1	4356	10	1,553	1,553		1,553	
D1	4356	100	2,547	2,547		2,547	
D2	1254	2	296	296		296	
D2	1254	10	557	557		557	
D2	1254	100	911	911		911	
D3	381	2	101	101		107	5
D3	381	10	197	197		203	6
D3	381	100	329	329		336	7
D4	651	2	149	149		154	5
D4	651	10	296	296		301	6
D4	651	100	499	499		506	7
D5a	142	2	40	44	5	46	6
D5a	142	10	81	87	7	90	9
D5a	142	100	139	148	9	152	13
D5b-2+	1939	2	353	353		353	
D5b-2+	1939	10	704	708	5	708	
D5b-2+	1939	100	1,200	1,206	6	1,206	
D6a-2+	569	2	123	126	3	126	
D6a-2+	569	10	250	254	3	254	
D6a-2+	569	100	430	434	4	434	
D6b-18+	220	2	57	71	15	71	
D6b-18+	220	10	115	134	19	134	
D6b-18+	220	100	198	219	21	219	
D6c-24+	72	2	23	32	9	32	
D6c-24+	72	10	47	59	12	59	
D6c-24+	72	100	81	95	14	95	
D6d-48+	696	2	145	157	12	157	
D6d-48+	696	10	295	311	16	311	
D6d-48+	696	100	507	526	19	526	
d121+3+D6e	110	2	32	39	7	39	
d121+3+D6e	110	10	66	74	8	74	
d121+3+D6e	110	100	113	123	9	123	

Node Name	Area (ac)	Storm Freq (yrs)	Max Q (Exist) (cfs)	Max Q (LRV Dev) (cfs)	Increase from LRV Dev (cfs)	Max Q (LRV + MV Dev) (cfs)	Increase from MV Dev (cfs)
D7a	118	2	34	36	2	36	
D7a	118	10	70	72	2	72	
D7a	118	100	119	122	3	122	
D7b	315	2	77	82	5	82	
D7b	315	10	156	165	9	165	
D7b	315	100	268	281	13	281	
D8	173	2	47	47		48	2
D8	173	10	95	95		97	2
D8	173	100	164	164		166	2
D9	259	2	65	65		74	9
D9	259	10	133	133		145	12
D9	259	100	228	228		243	15
D10	238	2	60	60		62	2
D10	238	10	122	122		125	3
D10	238	100	210	210		213	3
D11	1768	2	314	314		314	
D11	1768	10	639	639		639	
D11	1768	100	1,098	1,098		1,098	
D12	687	2	144	144		144	
D12	687	10	293	293		293	
D12	687	100	503	503		503	
StrpMinr	359	2	85	85		85	
StrpMinr	359	10	173	173		173	
StrpMinr	359	100	296	296		296	
PluktCr	1078	2	208	208		213	4
PluktCr	1078	10	424	424		430	6
PluktCr	1078	100	728	728		735	7

Node Name	Area (ac)	Storm Freq (yrs)	Max Q (Exist) (cfs)	Max Q (LRV Dev) (cfs)	Increase from LRV Dev (cfs)	Max Q (LRV + MV Dev) (cfs)	Increase from MV Dev (cfs)
M1a	23	2	9	9		9	
M1a	23	10	18	18		18	
M1a	23	100	31	31		31	
M1b	65	2	21	21		21	
M1b	65	10	44	44		44	
M1b	65	100	75	75		75	
M1c	39	2	14	14		14	
M1c	39	10	28	28		28	
M1c	39	100	49	49		49	
M1d	55	2	19	19		19	
M1d	55	10	38	38		38	
M1d	55	100	65	65		65	
M2	51	2	19	19		19	
M2	51	10	37	37		37	
M2	51	100	63	63		63	
M3a	150	2	41	41		47	6
M3a	150	10	84	84		93	9
M3a	150	100	144	144		157	12
M3b	134	2	38	38		41	3
M3b	134	10	77	77		81	4
M3b	134	100	132	132		137	5
M4a	70	2	23	23		25	2
M4a	70	10	46	46		50	4
M4a	70	100	79	79		84	5
M4b	110	2	32	32		37	4
M4b	110	10	66	66		73	7
M4b	110	100	113	113		123	10
M5	87	2	27	27		34	7
M5	87	10	55	55		65	10
M5	87	100	94	94		107	13
M6	107	2	32	32		47	15
M6	107	10	65	65		86	22
M6	107	100	111	111		139	28
M7a	102	2	30	30		35	4
M7a	102	10	62	62		68	6
M7a	102	100	107	107		113	6
M7b	45	2	16	16		20	5
M7b	45	10	32	32		38	6
M7b	45	100	55	55		63	8

Node Name	Area (ac)	Storm Freq (yrs)	Max Q (Exist) (cfs)	Max Q (LRV Dev) (cfs)	Increase from LRV Dev (cfs)	Max Q (LRV + MV Dev) (cfs)	Increase from MV Dev (cfs)
M8	65	2	21	21		34	13
M8	65	10	44	44		61	18
M8	65	100	75	75		97	22
M9	40	2	14	14		21	7
M9	40	10	29	29		38	9
M9	40	100	49	49		60	11
M10a	42	2	15	15		20	5
M10a	42	10	30	30		37	7
M10a	42	100	52	52		60	9
M10b	55	2	19	19		24	6
M10b	55	10	38	38		46	8
M10b	55	100	65	65		75	10
M11a	46	2	16	16		21	6
M11a	46	10	32	32		40	8
M11a	46	100	55	55		65	9
M11b	96	2	29	29		37	8
M11b	96	10	59	59		71	11
M11b	96	100	102	102		116	15
M11c	50	2	17	17		21	4
M11c	50	10	35	35		40	5
M11c	50	100	60	60		67	7
M12	95	2	29	29		32	3
M12	95	10	59	59		64	5
M12	95	100	102	102		107	5
M13a	71	2	23	23		26	3
M13a	71	10	47	47		51	4
M13a	71	100	80	80		86	6
M13b	62	2	21	21		24	3
M13b	62	10	42	42		47	4
M13b	62	100	72	72		78	6
M13c	52	2	18	18		19	2
M13c	52	10	36	36		39	3
M13c	52	100	62	62		66	4
M13d	44	2	15	15		16	1
M13d	44	10	32	32		33	1
M13d	44	100	54	54		56	2

		2-year Storm				10-year Storm				100-year Storm		
Location	Chnl Sta	**Scenario A**- Exist Cond	**Scenario B** MV Dev, LRV Dev	**Scenario C** MV Dev, LRV Undev		**Scenario A**- Exist Cond	**Scenario B** MV Dev, LRV Dev	**Scenario C** MV Dev, LRV Undev		**Scenario A**- Exist Cond	**Scenario B** MV Dev, LRV Dev	**Scenario C** MV Dev, LRV Undev
Deer Cr Upstream of LRV	d102+80x	970	970	970		1,820	1,820	1,830		3,000	3,000	3,000
Deer Cr Downstream of LRV Boundary	d121+30x	1,560	1,590	1,560		3,040	3,070	3,040		5,110	5,150	5,120
Deer CR Downstream of LRV Influence	d140-145	1,610	1,640	1,620		3,150	3,180	3,150		5,300	5,330	5,300
Deer Cr US of Confluence w/ Marble Valley Cr	d180-185	1,670	1,670	1,670		3,260	3,260	3,260		5,490	5,490	5,490
Marble Valley Cr US of Confluence w/ Deer Cr	175-179	490	475	475		1,000	695	695		1,700	857	857
Deer Cr DS of Confluence w/ Marble Valley Cr	d185-190	1,890	2,030	2,000		3,740	3,950	3,920		6,320	6,370	6,330
Deer Cr DS of Confluence with Plunkett Cr- End of Study	DrCrDS (d334)	2,560	2,710	2,670		5,150	5,300	5,250		8,820	8,730	8,680

Name	Upstream Node Name	Link Name	US Crown Elevation ft	US Invert Elevation ft	Max Water Elev (US) ft	Max Flow cfs	Length ft	DS Node Name	DS Crown Elevation m	DS Invert Elevation ft	Max Water Elev (DS) ft	Channel Width	Left Bank Encroachment Offset	Right Bank Encroachment Offset	Max Depth ft	Max Velocity ft/s
Main channel- Marble Valley Cr																
M1ctoM1b	M1c	M1ctoM1b	1025	1015	1016.9	50	300	M1b	1020	1010	1013.5	18.7	9.3	9.3	3.5	2.9
H-50-42a	M1b	H50xingM1b	1013.5	1010	1013.5	45	300	M3a	1008.5	1005	1007.6				3.5	5.2
H-50-42b	M1b	H50xingM1b	1013.5	1010	1013.5	77	300	M3a	1008.5	1005	1007.6				3.5	9.1
H50xingM1d	M1d	H50xingM1d	952	950	962.9	30	300	M2	948	946	948.0				12.9	9.6
30-56	m30+M1+3	30-56	1004	994	996.3	446	2600	m56	917.4	907.4	910.5	40.6	23.3	17.3	3.1	6.3
56-64	m56	56-64	917.4	907.4	910.5	445	800	m64+M4+5	905.5	895.5	903.9	105.9	29.7	76.2	8.4	1.3
64-75	m64+M4+5	64-75	895.5	895.5	903.9	844	1100	m75	869.8	869.8	873.7	27.1	10.8	16.3	8.4	9.8
75-82	m75	75-82	869.8	869.8	873.7	844	700	m82+M6	854	854	858.1	51.6	26.9	24.7	4.1	7.7
82-87	m82+M6	82-87	854	854	858.1	975	500	m87+M7b	847.2	847.2	852.0	79.3	36.4	42.9	4.8	5.4
87+93	m87+M7b	87+93	847.2	847.2	852.0	1,137	600	m93+M9	834	834	844.2	120.8	19.9	100.9	10.2	6.4
93-99	m93+M9	93-99	834	834	844.2	967	600	m99+M10a	826	826	844.2	277.2	223.4	53.8	18.2	4.0
60RCP-us1	m99+M10a	99-100.5x2	831	826	844.2	439	150	m100+50-ds	827	822	826.4				18.2	22.9
60RCP-us2	m99+M10a	99-100.5x2	831	826	844.2	439	150	m100+50-ds	827	822	826.4				18.2	22.9
100.5-103	m100+50-ds	100.5-103	832	822	826.4	877	250	m103+M10b	828	818	822.1	113.7	95.4	18.3	4.4	6.0
103+113	m103+M10b	103+113	818	818	822.1	907	1000	m113+M11c	798	798	801.4	60.8	36.3	24.5	4.1	7.4
113-128	m113+M11c	113-128	798	798	801.4	1,071	1500	m128+M12	773	773	776.6	77.8	49.6	28.2	3.6	6.7
128-130	m128+M12	128-130	773	773	776.6	1,184	200	m130+M13a	768	768	776.6	111.7	55.6	56.0	8.6	5.3
130-139	m130+M13a	130-139	768	768	776.6	1,260	950	m139+M13b	749.5	749.5	776.6	180.9	79.8	101.1	27.1	3.6
139-141.5x	m139+M13b	139-141.5x	754.5	749.5	776.6	557	150	m141+dsX2	752.5	747.5	751.9				27.1	28.8
141.5-148	m141+dsX2	141.5-148	747.5	747.5	751.9	557	650	m148	724	724	725.4	41.1	22.1	19.0	4.4	8.6
148-160	m148	148-160	724	724	725.4	557	1200	m160+M13c	707.5	707.5	709.3	168.7	128.5	40.3	1.8	3.0
160-170	m160+M13c	160-170	707.5	707.5	709.3	580	1000	m170+M13d	695.7	695.7	698.0	132.8	68.1	64.8	2.3	3.3
170-179end	m170+M13d	170-179end	695.7	695.7	698.0	625	900	m179d494D6	680	680	686.2	160.1	104.4	55.7	6.2	2.8

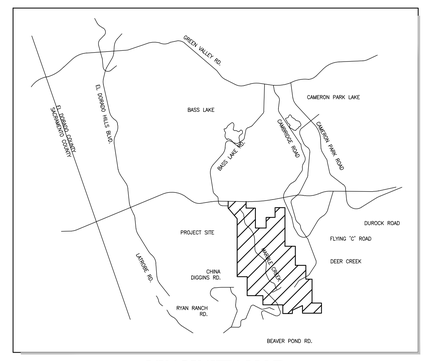
Map 2

MARBLE VALLEY, LLC

MARBLE VALLEY

MASTER DRAINAGE PLAN

August 2014



VINCINITY MAP

LEGEND

- EXISTING DRAINAGE SHED
- EXISTING DRAINAGE SWALE
- DEVELOPED 100 YEAR FLOODPLAIN

M1A M1B M1C M1D M2 M3A M3B M4A M4B M5 M6 M7A M7B M8 M9 M10A M10B M11A M11B M11C M12 M13A M13B M13C M13D D3 D4 D5A D7A D8 D9 D10

CAMBRIDGE OAKS

DOVE MEADOW COURT

FLYING C COURT

MOW LANE

DEER CREEK ROAD

20' EMERGENCY VEHICLE ACCESS

DETENTION POND

TO PLUNKETT CREEK

TO STRAP MINER CREEK

CHINA HIGGINS ROAD

RYAN RANCH ROAD

BEAVER POND ROAD

DEER CREEK TREATMENT PLANT

0 250' 500' 1000'

SCALE IN FEET

905 Sutter Street, Suite 200, Folsom CA 95630
(916) 366-3040 Fax (916) 366-3303
R. E. Y. ENGINEERS, Inc.
Civil Engineers / Land Surveyors

Appendix K

Transportation Impact Analysis

Village of Marble Valley Specific Plan

Transportation Impact Analysis

DRAFT

Prepared for:
County of El Dorado

May 2014

RS12-3016

FEHR PEERS

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1.0 INTRODUCTION

1.1 REPORT OVERVIEW

This study presents the results of a transportation impact analysis completed for the Village of Marble Valley Specific Plan (VMVSP) (project) in El Dorado Hills, California, which is an unincorporated area of El Dorado County (County). The project area is approximately 1,000 feet southeast of the US 50/Bass Lake Road interchange and is surrounded by the Cambridge Oaks residential development and US 50 to the north; Marble Ridge residential development and Valley View Specific Plan area to the west; Ryan Ranch residential development to the southwest; Sun Ridge Systems to the south; and Cameron Estates, the proposed Lime Rock Valley Specific Plan, Deer Creek Wastewater Treatment Plant, and Royal Equestrian Estates to the east.

The purpose of this impact analysis is to identify potential environmental impacts to transportation facilities as required by the California Environmental Quality Act (CEQA). This study was performend in accordance with the *El Dorado County Department of Transportation's Traffic Impact Study Protocols and Procedures*, and the scope of work developed in colloboration with County staff and Caltrans.

The remaining sections of this report document the proposed project, analysis methodolgies, impacts and mitigations.

1.2 PROJECT DESCRIPTION

The proposed VMVSP includes the development of 3,236 dwelling units, 87 acres of public facility/recreational use, 475,000 square feet of commercial use, 35 acres for two public schools (k5/K8), 1,284 acres of open space, 55 acres of agricultural use, and 61 acres of new road impact areas and future right-of-way. Planned improvements are proposed for 1,875 acres of the 2,341-acre site. Most of the development would occur north of Deer Creek. The proposed project expands the Community Region of El Dorado Hills to include the VMVSP area. Figure 1, adapted from the project's *Notice of Preparation of a Draft Environmental Impact Report,* provides an overview of the proposed project and internal roadway network to support proposed land uses.

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US 50 access will be through the US 50/Bass Lake Road and US 50/Cambridge Road interchanges. Marble Valley Parkway is proposed as a continuous roadway connecting the Bass Lake Road and Cambridge Road interchanges. A portion of Marble Valley Parkway is outside the plan area. Marble Lake Boulevard, which is planned as a four- to two-lane roadway, will provide the primary access roadway serving the project. Major intersections along Marble Lake Boulevard are planned to have roundabout control. Lime Rock Valley Boulevard will extend east of Marble Lake Boulevard as a two-lane roadway.

1.3 NOTICE OF PREPARATION COMMENTS REVIEW

The project's Notice of Preparation (NOP), which is required by CEQA was issued on February 20, 2013. The NOP and subsequent public scoping meeting provided interested parties the opportunity to formally comment on the project. This transportation analysis is informed by comments received during the NOP comment period. The following list summarizes transportation-related comments received by affected agencies and the general public.

Agency Comments Received

- Caltrans request to review the transportation scope. Caltrans recommended specific procedures for the analysis of state facilities. *Note: Coordination with Caltrans was completed during the NOP phase and included a meeting between Caltrans and El Dorado County to review study area and analysis methods.*
- CalFire request to review dead end road length calculations. *Note: The project has been reviewed and meets the requested length parameter.*

Public Comments Received (By Topic)

Public comments were incorporated into the environmental analysis as presented below.

General Traffic

- Impact of potential cut-through traffic on Cameron Estates roadways. *Note: No connections are proposed to Cameron Estates. Therefore, no evaluation of potential cut-through traffic on Cameron estates is necessary.*
- Concern regarding traffic congestion on Marble Valley Parkway. *Note: Analysis of Marble Valley Parkway is included in the study.*
- Need for a parallel and alternative route to US 50 on the south side of the freeway - *Note: Marble Valley Parkway will provide a parallel route to US 50 to the south.*

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- Concern regarding congestion on US 50. *Note: Analysis of US 50 was coordinated with Caltrans and is included in the study.*
- Preclude future connections to the east, west and south as not to worsen cumulative impacts. *Note: The analysis does not assume new connections to the east, west, or south.*

Access

- Impact of proposed school siting and related congestion. *Note: The analysis includes the proposed schools.*
- Issue of increased traffic on rural County roads and related access. *Note: The analysis study area rural roadways where the project is anticipated to contribute traffic.*
- Provide additional freeway access. *Note: Analysis of US 50 was coordinated with Caltrans and is included in the study. Freeway access is proposed and is consistent with the County's CIP.*
- Need more than the proposed access point from the community in the event of an emergency evacuation. *Note: Emergency vehicle access locations are proposed with the project.*

Pedestrian, Bicycle, Transit

- Review pedestrian, bicycle, trails and vehicle circulation plans to determine good connectivity between land uses. *Note: Bicycle and pedestrian facilities are evaluated in the study.*
- Evaluate transit options for employees. *Note: transit facilities and services are evaluated in the study.*
- Provide pedestrian and bicycle access to transit especially at night. *Note: Bicycle and pedestrian facilities are evaluated in the study.*

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Figure 1: Proposed Project [Revised Figures Pending]

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2.0 REGULATORY SETTING

Existing transportation polices, laws, and regulations that would apply to the proposed project are summarized below. This information provides a context for the impact discussion related to the project's consistency with applicable regulatory conditions.

2.1 STATE

2.1.1 CALIFORNIA DEPARTMENT OF TRANSPORTATION

The California Department of Transportation (Caltrans) is responsible for operating and maintaining the State highway system. In the project vicinity, US 50 falls under Caltrans jurisdiction. Caltrans provides administrative support for transportation programming decisions made by the California Transportation Commission (CTC) for state funding programs. The State Transportation Improvement Program (STIP) is a multi-year capital improvement program that sets priorities and funds transportation projects envisioned in long-range transportation plans.

In June 2010, Caltrans approved a Transportation *Corridor Concept Report (TCCR) for Highway 50*. Caltrans prepares a TCCR, which is a long-range (20-year) planning document, for each state highway. The purpose of each TCCR is to identify existing route conditions and future needs and includes a concept LOS standard and the facility needs to maintain the concept LOS. The cover of the TCCR states that the *US 50 Corridor System Management Plan (Caltrans, May 2009),* referred to as the CSMP, now serves as the TCCR from I-80 in West Sacramento to the Cedar Grove exit, which is east of the study area. Caltrans has established LOS F as the 'concept LOS' consistent with a four lane freeway with HOV lanes and auxiliary lanes. Since LOS F is identified as the concept LOS no further degradation of service from existing "F" is acceptable. The Concept LOS is a generalized LOS for large study segments used by Caltrans that reflect the minimum level of service or quality of operations acceptable for each route segment. However, the County General Plan LOS policy is used to identify impacts to US 50.

According to the *Guide for the Preparation of Traffic Impact Studies* (Caltrans, December 2002), the existing LOS should be maintained if a freeway facility is currently operating at an unacceptable LOS (e.g., LOS F). A project impact is said to occur if the project degrades LOS from an acceptable to unacceptable level. A project impact may also occur when the addition of project trips exacerbates existing LOS F conditions and leads to a perceptible increase in density on freeway mainline segments or ramp junctions, or a perceptible increase in service volumes in a weaving area. In addition, a project impact is said to occur

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when the addition of project trips causes a queue on the off-ramp approach to a ramp terminal intersection to extend beyond its storage area and onto the freeway mainline.

2.2 LOCAL

2.2.1 SACRAMENTO AREA COUNCIL OF GOVERNMENTS

The Sacramento Area Council of Governments (SACOG) is an association of local governments in the six-county Sacramento Region. Its members include the counties of Sacramento, El Dorado, Placer, Sutter, Yolo, and Yuba as well as 22 cities. SACOG provides transportation planning and funding for the region, and serves as a forum for the study and resolution of regional issues. In addition to preparing the region's long-range transportation plan, SACOG assists in planning for transit, bicycle networks, clean air, and airport land uses.

The *Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for 2035* (SACOG 2012) is a federally mandated long-range fiscally constrained transportation plan for the six-county area. Most of this area is designated a federal non-attainment area for ozone, indicating that the transportation system is required to meet stringent air quality emissions budgets to reduce pollutant levels that contribute to ozone formation. To receive federal funding, transportation projects nominated by cities, counties, and agencies must be consistent with the MTP/SCS.

The *2013/16 Metropolitan Transportation Improvement Program (MTIP)* is a list of transportation projects and programs to be funded and implemented over the next 3 years. SACOG submits this document to Caltrans and amends the program on a quarterly cycle. Only projects listed in the MTP/SCS may be included in the MTIP.

2.2.2 EL DORADO COUNTY TRANSPORTATION COMMISSION (EDCTC)

The EDCTC is the Regional Transportation Planning Agency (RTPA) for El Dorado County, except for that portion of the County within the Tahoe Basin, which is under the jurisdiction of the Tahoe Regional Planning Agency (TRPA).

One of the fundamental responsibilities which results from RTPA designation is the preparation of the County's Regional Transportation Plan. The *El Dorado County Regional Transportation Plan 2010 – 2030 (RTP)* is designed to be a blueprint for the systematic development of a balanced, comprehensive, multi-modal transportation system. The EDCTC submits the RTP to SACOG for inclusion in the MTP/SCS process.

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The *El Dorado County Bicycle Transportation Plan - 2010 Update* provides a blueprint for the development of a bicycle transportation system on the western slope of El Dorado County. The plan updates the currently adopted El Dorado County Bicycle Master Plan, which was adopted in January 2005.

In May 2013, The EDCTC completed the *El Dorado Hills Community Transit Needs Assessment and US 50 Corridor Operations Plan* (Plan), which explores how the recent growth and projected development impact the need for transit services, and identifies the most appropriate type and level of service needed given the demand. The Plan represents a recommendation from the Western El Dorado County 2008 Short-Range Transit Plan to study and consider improved transit service in the El Dorado Hills area.

In August 2008, The EDCTC adopted the Coordinated Public Transit – Human Services Transportation Plan, which is intended to improve mobility of individuals who are disabled, elderly, or of low-income status. The plan focuses on identifying needs specific to those population groups and identifying strategies to meet their needs.

2.2.3 COUNTY OF EL DORADO

The County of El Dorado provides for the mobility of people and goods within El Dorado Hills, which is an unincorporated area of the County. All of the study intersections are within the County's jurisdiction.

The Transportation and Circulation Element of the El Dorado County General Plan (amended January 2009) outlines goals and policies that coordinate the transportation and circulation system with planned land uses. The following goals and their associated policies are relevant to the project.

- GOAL TC-1: To plan for and provide a unified, coordinated, and cost-efficient countywide road and highway system that ensures the safe, orderly, and efficient movement of people and goods.
- GOAL TC-X: To coordinate planning and implementation of roadway improvements with new development to maintain adequate levels of service on County roads. (The LOS policy specific to this project is described in Section 3.2.)
- GOAL TC-2: To promote a safe and efficient transit system that provides service to all residents, including senior citizens, youths, the disabled, and those without access to automobiles that also helps to reduce congestion, and improves the environment.
- GOAL TC-3: To reduce travel demand on the County's road system and maximize the operating efficiency of transportation facilities, thereby reducing the quantity of motor vehicle emissions and the amount of investment required in new or expanded facilities.
- GOAL TC-4: To provide a safe, continuous, and easily accessible non-motorized transportation system that facilitates the use of the viable alternative transportation modes.

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- GOAL TC-5: To provide safe, continuous, and accessible sidewalks and pedestrian facilities as a viable alternative transportation mode.

The *El Dorado County Department of Transportation's Traffic Impact Study Protocols and Procedures* sets forth the procedures for conducting transportation analysis in the County. This traffic analysis is consistent with the County-established methods.

2.2.4 EL DORADO COUNTY TRANSIT AUTHORITY

El Dorado County Transit Authority (EDCTA) operates El Dorado Transit, which provides public transit service within the project area. El Dorado Hills is currently served by El Dorado Transit Dial-A-Ride services, Commuter Service, and the Iron Point Connector Route.

The El Dorado Park-and-Ride Facilities Master Plan, November 2007 calls for constructing nine new facilities over 20 years. The Plan calls for EDCTA to assume primary responsibility for existing Park-and-Ride facilities in the county and sets forth an annual program to fund the upkeep and operation. The Plan reiterates that demand exceeds supply at the Park-and-Ride lot, referred to as the El Dorado Hills Multi-modal Facility, located in the northeast corner of the White Rock Road/Latrobe Road intersection. In particular, Table 2 of the Plan suggests that future (year 2027) deficiency at this location is 172 additional spaces. The Plan identifies the construction of a 325-space multi-story parking garage with ground floor retail as priority project #12 in the Capital Improvement Program list. The proposed location is the existing Park-and-Ride lot.

The plan identifies the construction of the Bass Lake Hills Multi-modal Facility as the #1 priority. The concept is a condition of the Bass Lake Hills Specific Plan, which requires a designated site suitable for the construction of a 200-space Park-and-Ride facility. New development is also required to construct the first 100 spaces. The plan states that completion of the 200-space facility would fully address parking deficiencies in the Cameron Park area. Another facility, named the Marble Valley Park-and-Ride lot, has been proposed on the south side of US 50 at the Bass Lake Road interchange as part of the Marble Valley development previously approved by the County. However, the plan states that the Marble Valley Park-and-Ride lot is redundant with the Bass Lake Hills Multi-modal Facility and instead suggests that the developer provide an in-lieu payment towards another proposed Park-and-Ride facility such as the Bass Lake Hills Multi-modal Facility.

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3.0 METHOD OF ANALYSIS

3.1 ANALYSIS PROCEDURES

Each study roadway facility was analyzed using the concept of Level of Service (LOS). LOS is a qualitative measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. In general, LOS A represents free-flow conditions with no congestion, and LOS F represents long delays and a facility that is operating at or near its functional capacity.

3.1.1 INTERSECTIONS

Traffic operations at the study intersections were analyzed using procedures and methodologies contained in the Highway Capacity Manual (HCM), Transportation Research Board, 2000 (as confirmed with County staff). These methodologies were applied using Synchro or SimTraffic software packages (Version 7), developed by Trafficware. Table 1 displays the delay range associated with each LOS category for signalized and unsignalized intersections based on the HCM.

The micro-simulation analysis software, SimTraffic, was used to analyze operations at the US 50/El Dorado Hills Boulevard interchange (Town Center Boulevard to Saratoga Way) to accurately analyze the effect of closely-spaced intersections. Simulation was requested by El Dorado County staff and Caltrans. The SimTraffic micro-simulation analysis applied the following methodology:

- The simulation was conducted for the entire peak hour (i.e., 60 minutes) using four 15-minute intervals with the peak hour factor applied in the second interval
- The results were based on the average of ten model runs
- Each of the ten simulation runs applied a ten-minute seeding time

The existing conditions SimTraffic model was validated to field measured traffic volumes and observed maximum vehicle queue lengths.

The HCM methodology determines the level of service (LOS) at signalized intersections by comparing the average control delay (i.e. delay resulting from initial deceleration, queue move-up time, time actually stopped, and final acceleration) per vehicle at the intersection to the established thresholds. The LOS for

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traffic signal controlled and all-way stop controlled intersections is based on the average control delay for the entire intersection. For side-street stop-controlled intersections, the LOS is evaluated separately for each individual movement with delay reported for the critical (i.e., worst case) turning movement.

The following procedures and assumptions were applied for the analysis of existing and cumulative conditions:

- Roadway geometric data were gathered using aerial photographs and field observations.
- Peak hour traffic volumes were entered according to the peak hour of each intersection, except for the US 50/El Dorado Hills Boulevard interchange and adjacent intersections. For the interchange and adjacent intersections, a consistent peak hour was used so that volumes would balance (a requirement for accurate simulation analysis). The peak hour of the freeway is based traffic counts.
- Headway factors were adjusted based on the observed driver behavior. Drivers were observed to be more aggressive and use smaller headway to travel through the intersections near the US 50/El Dorado Hills Boulevard interchange.
- The peak hour factor (PHF) was calculated based on traffic counts and applied by approach, except for interchange areas, which applied the intersection PHF (a requirement for accurate simulation analysis), and under cumulative conditions where there was a significant increase in traffic volumes compared to existing conditions was forecast (Intersections 3-8, 13, and 14). A PHF of 0.95 was used at these locations.
- The counted pedestrian and bicycle volumes will be used with a minimum of two pedestrians per approach per peak hour.
- Heavy vehicle percentages were based on traffic counts and applied by movement.
- Signal phasing and timings were based on existing signal timing sheets provided by El Dorado County.
- Speeds for the model network were based on the posted speed limit.
- The PHF calculated for existing conditions was used for cumulative conditions, except for the Latrobe Road/Town Center Boulevard, US 50 EB Ramps/El Dorado Hills Boulevard, US 50WB Ramps/El Dorado Hills Boulevard, and the Saratoga Way/Park Drive/El Dorado Hills Boulevard intersections where a PHF of 0.95 was applied.

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- The existing heavy vehicle percentages were maintained for cumulative conditions.
- The existing pedestrian and bicycle volumes were maintained for cumulative conditions.
- Traffic signals were optimized to serve future traffic volumes.

TABLE 1: INTERSECTION LEVEL OF SERVICE CRITERIA

Level-of-Service	Average Control Delay (seconds/vehicle)		Description
	 Signalized	 Stop Controlled	
A	< 10.0	< 10.0	Very low delay. At signalized intersections, most vehicles do not stop.
B	10.1 to 20.0	10.1 to 15.0	Generally good progression of vehicles. Slight delays.
C	>20.1 to 35.0	>15.1 to 25.0	Fair progression. At signalized intersections, increased number of stopped vehicles.
D	>35.1 to 55.0	>25.1 to 35.0	Noticeable congestion. At signalized intersections, large portion of vehicles stopped.
E	>55.1 to 80.0	>35.1 to 50.0	Poor progression. High delays and frequent cycle failure.
F	>80.0	>50.0	Oversaturation. Forced flow. Extensive queuing.

Source: Highway Capacity Manual (Transportation Research Board, 2010)

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3.1.2 ROADWAY SEGMENTS

Roadway segment LOS was determined by comparing traffic volumes for selected roadway segments with peak hour LOS capacity thresholds. These thresholds are shown in Table 2 and were calculated based on the methodology contained in the Highway Capacity Manual (Transportation Research Board, 2000) and applied for the analysis of the 2004 El Dorado County General Plan.

TABLE 2:
PEAK HOUR ROADWAY SEGMENT CAPACITIES BY FUNCTIONAL CLASSIFICATION AND LOS

Functional Classification	Lanes	Roadway Segment Capacity (Vehicles per Hour)				
		LOS A	LOS B	LOS C	LOS D	LOS E
Arterial (Divided)	4	N/A	N/A	1,850	3,220	3,290
	5	N/A	N/A	2,350	4,060	4,110
	6	N/A	N/A	2,760	4,680	4,710
	7	N/A	N/A	3,215	5,410	5,420
Arterial (Undivided)	2	N/A	N/A	850	1,540	1,650
	4	N/A	N/A	1,760	3,070	3,130

Notes: Peak hour roadway segment capacities based on the HCM 2010 and developed by the El Dorado County Community Development Agency, Long Range Planning. Five-lane capacity calculated by adding half of the difference between the two-lane and four-lane capacity to the four-lane capacity. Seven-lane capacity calculated by adding half of the difference between the four-lane and six-lane capacity to the four-lane capacity,

Source: Fehr & Peers, 2014

3.1.3 FREEWAY FACILITIES

The Highway Capacity Manual (Transportation Research Board, 2010), includes three different tiers of analysis for freeway facilities, which include planning, design, and operations analysis. The different tiers are intended to provide flexibility to the user in selecting the appropriate analysis level given available

resources (e.g., time and availability of analysis inputs) and the desired breadth of analysis coverage (e.g., more locations with less detail vs. fewer locations with more detail). For example, a planning level analysis requires relatively generalized analysis inputs and is regularly used when the breadth of coverage is more important than analysis detail. For example, Caltrans uses planning level analysis for long-range planning efforts like the US 50 Corridor System Management Plan, which groups many freeway facilities into single analysis segments. The project level analysis in this report is based on operations analysis methods and analyzes each freeway facility separately, focusing on analysis detail instead of breadth of coverage. The operations analysis method is consistent with General Plan Policy TC-Xd and Caltrans traffic impact study guidelines.

Freeway operations were analyzed using the procedures and methodologies contained in the Highway Capacity Manual (Transportation Research Board, 2010). Table 3 describes the HCM LOS criteria for freeway mainline, freeway ramp junctions, and freeway weaving segments. For weaving segments, Caltrans District 3 prefers analysis based on the Leisch Method, which is described in the *Highway Design Manual* (Caltrans, last updated July 1, 2008). For consistency with both the El Dorado County General Plan and Caltrans preference, analysis of freeway weaving segments was conducted using both the HCM and Leisch Methods.

TABLE 3:
FREEWAY FACILITY LEVEL OF SERVICE CRITERIA

Level of Service	Density (vehicles/mile/lane)		
	Mainline	Ramp Junction	Weaving
A	≤ 11	≤ 10	
B	11 – 18	10 – 20	
C	18 – 26	20 – 28	
D	26 – 35	28 – 35	
E	35 – 45	> 35	
F	> 45	Demand exceeds capacity	

Source: Transportation Research Board, 2010

3.2 THRESHOLDS OF SIGNIFICANCE

In accordance with CEQA, the effects of a project are evaluated to determine if they will result in a significant adverse impact on the environment. Informed by the 2012 California Environmental Quality Act (CEQA) Statutes and Guidelines, specifically Appendix G, the following criteria have been established to determine whether or not the project would have a significant impact on transportation and circulation.

The intent of CEQA Section 15064 is for the responsible agency to establish the thresholds in the context of what their specific values are towards environmental resources or impacts. Therefore, the standards of significance in this analysis are based on the framework presented in CEQA Appendix G and the current practice of the appropriate regulatory agencies. For most areas related to transportation and circulation, policies from the *2004 El Dorado County General Plan (amended January 2009)* and *the El Dorado County Department of Transportation's Traffic Impact Study Protocols and Procedures* were used. For the freeway system, Caltrans' standards were used. Implementation of the project would have a potentially significant impact on transportation and circulation if it causes any of the following outcomes:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness (MOEs) for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. The following specific MOEs, which have been generated by the regulatory agencies, are applicable to this project.
    - General Plan Circulation Policy TC-Xd provides Level of Service standards for County-maintained roads and state highways as follows[1]:
        - Level of Service (LOS) for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in the Community Regions or LOS D in the Rural Centers and Rural Regions except as specified in Table TC-2. The volume to capacity ratio of the roadway segments listed in Table TC-2 as applicable shall not exceed the ratio specified in that table. *(Note: Two of the study roadways are presented in Table TC-2. Cambridge Road from Country Club Drive to Oxford Road is allowed a maximum volume-to-capacity (V/C) ratio of 1.07 until 2018. Cameron Park Drive from Robin Lane to Coach Lane is allowed a maximum V/C ratio of 1.11 until 2018.)*
        - If a project causes the peak hour level of service or volume/capacity ratio on a county road or state highway that would otherwise meet the County standards

[1] *El Dorado County Department of Transportation's Traffic Impact Study Protocols and Procedures, June 2008.*

(without the project) to exceed the LOS threshold, then the impact shall be considered significant.

- If any county road or state highway fails to meet the above listed county standards for peak hour level of service or volume/capacity ratios under existing conditions, and the project will "significantly worsen" conditions on the road or highway, then the impact shall be considered significant. The term "significantly worsen" is defined for the purpose of the paragraph according to General Plan Policy TC-Xe as follows:

    A. A two (2) percent increase in traffic during the AM peak hour, PM peak hour or daily, OR

    B. The addition of 100 or more daily trips, OR

    C. The addition of 10 or more trips during the AM peak hour or the PM peak hour.

- Caltrans considers the following to be significant impacts:

    - Off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway (i.e., exceed the available storage capacity);

    - Project traffic increases that cause any ramp's merge/diverge level of service to be worse than the freeway's level of service.

    - Any additional traffic generated by the project is added to a facility already operating at LOS F[2].

- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

    - The County has published the following issues and General Plan goals as relevant to traffic impact study assessments. The project may trigger a potentially significant impact if it's in conflict with any of the following:

        - Access to Public Transit Services consistent with General Plan Circulation Element Goal TC-2: "To promote a safe and efficient transit system that provides service to all residents, including senior citizens, youths, the disabled, and those without

[2] The US 50 Transportation Corridor Concept Report identifies LOS F as the "Concept LOS" for US 50 from the Sacramento/El Dorado County line to Cameron Park Drive.

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access to automobiles that also helps to reduce congestion, and improves the environment."

- Transportation System Management consistent with General Plan Circulation Element Goal TC-3: "To reduce travel demand on the County's road system and maximize the operating efficiency of transportation facilities, thereby reducing the quantity of motor vehicle emissions and the amount of investment required in new or expanded facilities."
- Non-Motorized Transportation consistent with General Plan Circulation Element Goal TC-4: "To provide a safe, continuous, and easily accessible non-motorized transportation system that facilitates the use of the viable alternative transportation modes."

- Conflict with adopted policies, plans or programs regarding the delivery of goods and services.

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4.0 EXISTING SETTING

4.1 STUDY AREA

Based on coordination with the El Dorado County Community Development Agency (Long Range Planning) staff and Caltrans, the expected distribution of project trips, and review of the *El Dorado County Department of Transportation's Traffic Impact Study Protocols and Procedures,* the following study intersections, roadway segments and freeway facilities have been selected for analysis during both the AM and PM peak hours. Figure 2 identifies the study area.

The following lists both existing intersections and intersections proposed as part of the project. Intersections 17 and 18 are applicable only to the Cumulative Conditions analysis. The applicable LOS target (LOS E for Community Regions and LOS D for Rural Regions) is identified for each study intersection.

Existing Intersections

1. Serrano Parkway/Bass Lake Road (LOS E)
2. Hollow Oak Drive/Bass Lake Road (LOS E)
3. Old Bass Lake Road/Bass Lake Road (LOS D)
4. Country Club Drive/Bass Lake Road (LOS D)
5. US 50 westbound ramps/Bass Lake Road (LOS D)
6. US 50 eastbound ramps/Bass Lake Road (LOS D)
7. Marble Mountain Road/Marble Valley Parkway (LOS D)
8. Marble Valley Parkway/Marble Ridge Road (LOS D)
9. Country Club Drive/Cambridge Road (LOS E)
10. Knollwood Drive/Cambridge Road (LOS E)
11. Merrychase Drive/Cambridge Road/ US 50 westbound ramps (LOS E)
12. US 50 eastbound ramps/Cambridge Road (LOS E)
13. Crazy Horse Road/Flying C Road/Cambridge Road (LOS E)
14. Flying C Road/Marble Valley Parkway (LOS E)
15. US 50 westbound ramps/El Dorado Hills Boulevard (LOS E)
16. US 50 eastbound ramps/Latrobe Road (LOS E)

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Future Intersections:

17. Silva Valley Parkway/US 50 Westbound Ramps (Cumulative Conditions) (LOS E)
18. Silva Valley Parkway/US 50 Eastbound Ramps (Cumulative Conditions) (LOS E)
19. Saratoga Way/El Dorado Hills Boulevard
20. Park Drive/El Dorado Hills Boulevard
21. Town Center Boulevard/Latrobe Road
22. White Rock Road/Latrobe Road

Roadways:

- Bass Lake Road
- Cambridge Road
- Cameron Park Drive
- Country Club Drive
- Durock Road

Freeway Facilities:

- US 50 Mainline (Eastbound and Westbound) – Sacramento County to Cameron Park Drive
- El Dorado Hills Boulevard Interchange
- Bass Lake Road Interchange
- Cameron Park Interchange
- Silva Valley Parkway Interchange (Future Conditions)

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4.2 ROADWAY NETWORK

The characteristics of the roadway system in the vicinity of the project are described below. Where applicable, the roadway designation given in the *2004 El Dorado County General Plan (amended January 2009)* is provided.

US Route 50 (US 50) is an east-west freeway located south of the project site. Generally, US 50 serves the majority of El Dorado County's major population centers and provides regional connections to the west (i.e., Sacramento) and to the east (i.e., State of Nevada). Primary access to the project from US 50 is provided via the US 50/Bass Lake Road and US 50/Cambridge Road interchanges. Near the project, westbound US 50 has a high-occupancy vehicle (HOV) lane and two general purpose travel lanes and eastbound US 50 has an HOV lane and three general purpose travel lanes west of Bass Lake Road and an HOV lane and two general purpose travel lanes between Bass Lake Road an Cambridge Road. The General Plan identifies US 50 as an eight lane freeway under future conditions. US 50 serves about 63,000 vehicles per day between Bass Lake Road and Cambridge Road.

The US 50/El Dorado Hills Boulevard/Latrobe Road interchange is currently under construction to improve the westbound on- and off-ramps, add 1,000 feet of auxiliary lane to westbound US 50, and provide westbound ramp metering and a dedicated HOV on-ramp lane. Future improvements are planned for this interchange as described in Section 6.1, Table 12.

Construction of the new US 50/Silva Valley Parkway/White Rock Road interchange is under construction. The interchange will be constructed in two phases. Phase 1 (CIP Project No: 71328) will construct a new connection to US 50 with new signalized slip on- and off-ramps westbound and a slip off-ramp and loop on-ramp eastbound. The mainline will have an overcrossing for Silva Valley Parkway and will be improved to include eastbound and westbound auxiliary lanes between the US 50/El Dorado Hills Boulevard/Latrobe Road interchange and the new US 50/Silva Valley interchange. Completion of Phase 1 is scheduled for 2016. Phase 2 will construct a westbound loop on-ramp and eastbound slip on-ramp (CIP Project No: 71345). The westbound loop on-ramp will begin the addition of an auxiliary lane that will continue westbound through the El Dorado Hills Boulevard interchange and terminate at the planned US 50/Empire Ranch interchange (CIP Project No: 53120).

The planned reconstruction of the US 50/Bass Lake Road interchange (CIP Project No: 71330 and GP148), will add a westbound auxiliary lane between the Bass Lake Road and Silva Valley Parkway interchanges.

Bass Lake Road is a two-lane roadway that generally follows at north-south alignment from north of US 50 to Green Valley Road. Marble Valley Parkway is the continuation of Bass Lake Road south of US 50 and

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is proposed as the primary route to the project. The County's General Plan identifies Bass Lake Road as a four lane divided road near US 50 transitioning to a four lane undivided road and eventually a two-lane road as it continues north. Bass Lake Road serves about 10,000 vehicles per day north of US 50.

Cambridge Road is a two-lane roadway that generally follows a north-south alignment from north of US 50 to Green Valley Road. The project will access the US 50/ Cambridge Road interchange by way of Marble Valley Parkway with a connection to Flying C Road (north of the Cameron Estates entry gate). The County's General Plan identifies Cambridge Road as a major two lane road. Cambridge Road serves about 8,000 vehicles per day north of Country Club Drive.

Cameron Park Drive north of Palmer Drive, is a two-lane roadway to Green Valley Road. North of Green Valley Road, Cameron Park Drive continues as Starbuck Road. South of Palmer Drive, the roadway widens to four lanes with a center left-turn lane through the US 50 interchange to Coach Lane where it narrows again. Durock Road is the continuation of Cameron Park Drive south of Robin Lane. The County's General Plan identifies Cameron Park Drive as a four lane divided roadway from US 50 to Meder Road. Remaining portions are classified as a major two lane road. Cameron Park Drive serves about 20,000 vehicles per day south of Hacienda Drive.

Country Club Drive is a two-lane east-west roadway that generally runs parallel to and north of US 50. Country Club Drive provides connectivity between Bass Lake Road and Cameron Park Drive. It serves as a frontage road to US 50 and a connection between El Dorado Hills and Cameron Park communities. The County's General Plan identifies Country Club Drive as a major two lane road. Country Club Drive serves about 4,000 vehicles per day east of Bass Lake Road.

Flying "C" Road is two travel lanes south of the US 50 eastbound ramp-terminal intersection at the US 50/ Cambridge Road interchange. The project will access the US 50/ Cambridge Road interchange by way of Marble Valley Parkway with a connection to Flying C Road (north of the Cameron Estates entry gate).The County's General Plan does not specifically identify Flying "C" Road on the Circulation Map. Flying C Road serves about 500 vehicles per day.

El Dorado Hills Boulevard is a north-south roadway that continues as Salmon Falls Road on the north and Latrobe Road on the south. The roadway is four lanes with a center median between Park Drive and Governor Drive. Between US 50 and Park Drive, the roadway section widens to three lanes northbound to accommodate vehicle demand near the US 50 interchange. The County's General Plan identifies El Dorado Hills Boulevard as a four lane divided road except near US 50 where the designation changes to a six lane divided road. El Dorado Hills Boulevard serves about 22,000 vehicles per day north of Wilson Boulevard.

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Latrobe Road is a north-south roadway and is the continuation of El Dorado Hills Boulevard south of US 50. Latrobe Road is six lanes near the US 50 interchange, narrows to four lanes south of White Rock Road and eventually narrows to two lanes as it continues south to connect with State Route 16 in Amador County. The General Plan identifies Latrobe Road as a six lane divided roadway near the US 50 interchange transitioning to a four lane divided road, then a two lane major road and eventually a two lane regional road serving the southwest portion of the County. Latrobe Road serves about 26,000 vehicles per day north of White Rock Road.

Marble Mountain Road is a relatively short two-lane roadway that serves rural residential properties south of US 50. The roadway is west of the project area but intersects Marble Valley Parkway near the US 50/Bass Lake Road interchange. The County's General Plan does not specifically identify Marble Mountain Road on the Circulation Map. Marble Mountain Road serves less than 200 vehicles per day.

Marble Valley Parkway is a two-lane roadway just south of US 50. The road terminates approximately 500 feet south of the US 50/Bass Lake Road interchange. Marble Valley Parkway is the continuation of Bass Lake Road south of US 50 and is the primary route to the proposed project. The County's General Plan does not specifically identify Marble Valley Parkway on the Circulation Map. Marble Valley Parkway serves less than 200 vehicles per day.

Serrano Parkway primarily serves residential land uses west of Bass Lake Road. The roadway provides one lane in each direction with a landscaped median west of Bass Lake Road. A new traffic signal is being installed at the Bass Lake Road/Silva Valley Parkway intersection as part of improvement to add the east leg to the intersection. The General Plan identifies this segment of Serrano Parkway as a major two lane road. Serrano Parkway serves about 5,000 vehicles per day west of Bass Lake Road.

Silva Valley Parkway is a north-south roadway that generally runs parallel to El Dorado Hills Boulevard north of US 50. Silva Valley Parkway ranges from two lanes to four lanes with a center median within the study area. The General Plan identifies Silva Valley Parkway as a four lane divided road. A new US 50 interchange at Silva Valley/White Rock Road is planned and included in the Cumulative conditions transportation analysis. The interchange project provides a realigned Silva Valley Parkway that will connect to the existing four-lane Silva Valley Parkway to the north and the existing two lane White Rock Road on the south. A new signalized intersection will be installed where the new Silva Valley Parkway will intersect old White Rock Road on the south.

White Rock Road is the continuation of Silva Valley Parkway south of US 50. White Rock Road is predominately a two or three lane roadway until west of Latrobe Road where the cross section widens to four lanes. White Rock Road was recently widened east of Latrobe Road to Monte Verde Drive to accommodate four lanes, sidewalks and Class II bicycle lanes. The General Plan identifies White Rock Road

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as a six lane divided road east of Latrobe Road and a four lane divided road west of Latrobe Road. The US 50/Silva Valley Parkway/White Rock Road interchange will modify the roadway alignment and introduce a new signalized intersection at the intersection of White Rock Road/Existing Silva Valley Parkway/New Silva Valley Parkway and is assumed under Cumulative conditions. White Rock Road serves about 9,000 vehicles per day south of US 50.

4.3 EXISTING CONDITIONS PEAK HOUR TRAFFIC VOLUMES

Intersection, roadway segment, and freeway counts were collected to determine the existing traffic operations of study facilities. Weather conditions were generally dry and local schools were in full session, during the traffic count data collection.

For study intersections, AM peak period (7 AM to 9 AM) and PM peak period (4 PM to 6 PM) intersection turning movement counts were collected in May 2012 and January 2013. For study roadways, 24-hour traffic counts were collected in May 2012. Construction was ongoing at the US 50/El Dorado Hills Boulevard interchange. Field observations conducted during the AM and PM peak periods identified extensive vehicle queuing near the US 50/El Dorado Hills Boulevard interchange, with the longest queues southbound during the AM peak hour and northbound during the PM peak hour. However, all queued vehicles were served during the peak hour, so the traffic counts are representative of peak hour travel demand. As discussed in Section 3.1.1, the Latrobe Road/Town Center Boulevard, US 50 EB Ramps/El Dorado Hills Boulevard, US 50WB Ramps/El Dorado Hills Boulevard, and the Saratoga Way/Park Drive/El Dorado Hills Boulevard intersections where analyzed using SimTraffic micro-simulation with a common analysis hour (a requirement for accurate simulation analysis).

Each of the other study intersection's peak hours within the peak period was used for the analysis. For the majority of study intersections, the counts indicate that the AM peak hour is between 7:15 AM and 8:15 AM and the PM peak hour is between 5:00 PM and 6:00 PM. Figure 3 provides peak hour traffic volumes, lane configurations and traffic controls at each of the study intersections. Following is a list of both existing intersections and intersections proposed as part of the project.

Roadway segment traffic counts were collected for 20 roadway segments on Bass Lake Road, Cambridge Road, Cameron Park Drive, Country Club Drive, and Durock Road.

For US 50, directional traffic counts were collected during the AM peak period (6 AM to 9 AM) and PM peak period (3 PM to 6 PM) and included vehicle classification (i.e., automobiles and trucks) and vehicles using the high occupancy vehicle (HOV) lanes. The freeway traffic counts were conducted midweek (i.e., Tuesday, Wednesday, and Thursday) in August 2013. The August 2013 traffic counts were verified for

reasonableness by comparing to traffic data from Caltrans' Performance Measurement System (PeMS) and the Transportation Systems Network (TSN) data. PeMS data is collected continuously from traffic counts detectors located in the travel lanes of freeway facilities (HOV, general purpose, and on- and off-ramps). The TSN data includes an estimate of peak hour traffic based on seven day traffic counts. Figure 4 provides peak hour traffic volumes and lane configurations on US 50. Based on the August 2013 counts, heavy vehicles (i.e., trucks) represented one- and two-percent of westbound traffic during the morning and evening peak hours, respectively. In the eastbound direction, heavy vehicles represented four- and one-percent of traffic during the morning and evening peak hours, respectively. These peak hour heavy vehicle percentages are lower than rates based on daily traffic volumes, since heavy vehicles avoid peak hour conditions.

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Figure 2: Study Area [Revised Figures Pending]

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Figure 3: Peak Hour Traffic Volumes and Lane Configurations – Existing Conditions [Revised Figures Pending]

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Figure 4: Freeway Mainline and Ramp Peak Hour Traffic Volumes – Existing Conditions [Revised Figures Pending]

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4.4 EXISTING CONDITIONS PEAK HOUR VEHICLE LEVEL OF SERVICE

4.4.1 INTERSECTIONS

Table 4 summarizes existing conditions AM and PM peak hour Level of Service (LOS) for the study intersections. The LOS of a facility is a qualitative measure used to describe operating conditions. LOS ranges from A (best), which represents short delays, to LOS F (worst), which represents long delays and a facility that is operating at or near its functional capacity.

As described in Section 2.2, an intersection that is operating at LOS D or better in a Rural Region or LOS E or better in a Community Region is considered to operate at an acceptable level. The following three study intersections operate at LOS F:

- Bass Lake Road/Country Club Drive – LOS F during the AM peak hour
- Bass Lake Road/US 50 eastbound ramps – LOS F during the PM peak hour
- Cambridge Drive/Knollwood Drive – LOS F during the AM peak hour

All three intersections have side-street stop control.

Detailed LOS analysis sheets are contained in Appendix A. See section 3.1 and Table 1 for a definition of LOS as it relates to intersection delay.

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TABLE 4: PEAK HOUR LEVEL OF SERVICE – EXISTING CONDITIONS (INTERSECTION)

Intersection	LOS Target	Traffic Control	LOS / Delay (seconds)	
			AM Peak Hour	PM Peak Hour
1. Bass Lake Road/Serrano Parkway	E	AWSC	D / 30	B / 13
2. Bass Lake Road/Hollow Oak Drive	E	SSSC	C / 20	B / 14
3. Bass Lake Road/Old Bass Lake Road	D	SSSC	C / 20	B / 12
4. Bass Lake Road/Country Club Drive	D	SSSC	**F / >180**	C / 22
5. Bass Lake Road/US WB 50 Ramps	D	SSSC	B / 11	C / 16
6. Bass Lake Road/US EB 50 Ramps	D	SSSC	C / 20	**F / 58**
7. Marble Valley Parkway/ Marble Mountain Road	D	SSSC	A / 9	A / 9
8. Marble Valley Parkway/ Marble Ridge Road	D	SSSC	A / 9	A / 9
9. Cambridge Road/Country Club Drive	E	AWSC	E / 39	C / 18
10. Cambridge Road/Knollwood Drive	E	SSSC	**F / 82**	E / 41
11. Cambridge Road/Merrychase Drive/US 50 WB Ramps	E	Signal	D / 54	C / 28
12. Cambridge Road/US 50 EB Ramps	E	SSSC	B / 14	E / 45
13. Cambridge Road/Flying C Road/Crazy Horse Road	E	SSSC	B / 12	B / 11
14. Flying C Road/Marble Valley Parkway	E	SSSC	A / 0	A / 0
15. El Dorado Hills Boulevard/US 50 WB Ramps	E	Signal	D / 43	C / 29
16. Latrobe Road/US 50 EB Ramps	E	Signal	B / 15	B / 14
17. Silva Valley Parkway/US 50 WB Ramps	E	Signal	Does Not Exist	
18. Silva Valley Parkway/US 50 EB Ramps	E	Signal	Does Not Exist	
19. El Dorado Hills Boulevard/Park Drive/Saratoga Way	E	Signal	D / 36	C / 25

TABLE 4: PEAK HOUR LEVEL OF SERVICE – EXISTING CONDITIONS (INTERSECTION)

Intersection	LOS Target	Traffic Control	LOS / Delay (seconds)	
			AM Peak Hour	PM Peak Hour
20. Park Drive/El Dorado Hills Boulevard	E	Signal	E / 56	B / 15
21. Latrobe Road/Town Center Drive	E	Signal	C / 29	E / 75
22. Latrobe Road/White Road	E	Signal	C / 35	D / 44

Notes: SSSC = side-street stop-control, AWSC = all-way stop control

Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.

The average delay is measured in seconds per vehicle. For signalized and AWSC intersections, the delay shown is the average control delay for the overall intersection. For SSSC intersections, the LOS and control delay for the worst movement is shown.

Intersection LOS and delay is calculated based on the procedures and methodology contained in the *HCM* (TRB, 2000). Intersections 1-14 and 22 are analyzed in Synchro 7. Intersections 15-16 and 19-21 are analyzed in SimTraffic.

Source: Fehr & Peers, 2014

4.4.2 ROADWAY SEGMENTS

Table 5 summarizes existing conditions AM and PM peak hour LOS for the study roadways. All study area roadway segments operate acceptably, with most operating at LOS C or better.

Detailed LOS analysis sheets are contained in Appendix A. See section 3.1 and Table 2 for a definition of LOS as it relates to roadway segments.

TABLE 5: PEAK HOUR LEVEL OF SERVICE – EXISTING CONDITIONS (ROADWAY SEGMENTS)

Roadway	Segment	Facility Type	Volume / Volume – Capacity (V/C) Ratio / LOS	
			AM Peak Hour	PM Peak Hour
Bass Lake Rd	Green Valley Rd to Bridlewood Dr	2 lane arterial	503 / 0.30 / C[1]	486 / 0.29 / C[1]
	Bridlewood Dr to Serrano Pkwy	2 lane arterial	726 / 0.44 / C[1]	772 / 0.47 / C[1]
	Serrano Pkwy to Hollow Oak Dr	2 lane arterial	933 / 0.57 / D	869 / 0.53 / D
	Hollow Oak Dr to Country Club Dr	2 lane arterial	1,023 / 0.62 / D	928 / 0.56 / D

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TABLE 5: PEAK HOUR LEVEL OF SERVICE – EXISTING CONDITIONS (ROADWAY SEGMENTS)

Roadway	Segment	Facility Type	Volume / Volume – Capacity (V/C) Ratio / LOS	
			AM Peak Hour	PM Peak Hour
	Country Club Dr to US 50	2 lane arterial	1,128 / 0.68 / D	1,067 / 0.65 / D
Cambridge Rd	Green Valley Rd to Oxford Rd	2 lane arterial	381 / 0.23 / C[1]	394 / 0.24 / C[1]
	Oxford Rd to Knollwood Dr[2]	2 lane arterial	641 / 0.39 / C[1]	764 / 0.46 / C[1]
	Knollwood Dr to Country Club Dr[2]	2 lane arterial	617 / 0.37 / C[1]	738 / 0.45 / C[1]
	Country Club Dr to US 50	2 lane arterial	959 / 0.58 / D	993 / 0.60 / D
Cameron Park Dr	Green Valley Rd to Alhambra Dr	2 lane arterial	654 / 0.40 / C[1]	793 / 0.48 / C[1]
	Alhambra Dr to Oxford Rd	2 lane arterial	1,211 / 0.73 / D	1,434 / 0.87 / D
	Oxford Rd to Hacienda Dr	2 lane arterial	1,080 / 0.65 / D	1,612 / 0.98 / E
	Hacienda Dr to US 50	4 lane undivided arterial	1,084 / 0.35 / C[1]	1,636 / 0.52 / C[1]
Country Club Dr	Bass Lake Rd to Merrychase Dr	2 lane arterial	518 / 0.31 / C[1]	310 / 0.19 / C[1]
	Merrychase Dr to Knollwood Dr	2 lane arterial	481 / 0.29 / C[1]	300 / 0.18 / C[1]
	Knollwood Dr to Cambridge Rd	2 lane arterial	338 / 0.20 / C[1]	281 / 0.17 / C[1]
	Cambridge Rd to Royal Dr	2 lane arterial	283 / 0.17 / C[1]	297 / 0.18 / C[1]
	Royal Dr to Cameron Park Dr	2 lane arterial	215 / 0.13 / C[1]	362 / 0.22 / C[1]
Durock	US 50 to Business Dr[3]	2 lane arterial	319 / 0.19 / C[1]	556 / 0.34 / C[1]
	Business Dr to S. Shingle Rd	2 lane arterial	322 / 0.2 / C[1]	547 / 0.33 / C[1]

Notes: [1] LOS at this location is C or better

[2]Cambridge Road between Country Club Drive and Oxford Road is allowed to operate at LOS F (maximum V/C/ ratio of 1.07) until 2018 per County standard

[3]Durock Road/Cameron Park Drive between Coach Lane and Robin Lane is allowed to operate at LOS F (maximum V/C ratio of 1.11) until 2018 per County standard.

Volume-to-Capacity ratio and LOS is based on the HCM 2010 peak hour level of service thresholds.

Source: Fehr & Peers, 2014

4.4.3 FREEWAY FACILITIES

Freeway facilities in the County are under the jurisdiction of the California Department of Transportation (Caltrans). In recent years, US 50 and interchanges within or proximate to the study area have undergone or are undergoing various improvements to enhance traffic operations. These improvements include: High Occupancy Vehicle (HOV) lanes east to Cameron Park Drive and modifications to the US 50/El Dorado Hills Boulevard Latrobe Road interchange westbound ramps (currently under construction). As described in Section 4.2, the US 50/Silva Parkway/Latrobe Road interchange will be constructed within the next few years.

Table 6 summarizes existing peak hour freeway operating conditions. All of the study facilities currently operate acceptably. Detailed LOS analysis sheets are contained in Appendix A. See section 3.1 and Table 3 for a definition of LOS as it relates to freeway facilities.

TABLE 6: FREEWAY FACILITY PEAK HOUR LEVEL OF SERVICE – EXISTING CONDITIONS

Freeway	Segment	Facility Type	Existing Density[1] / LOS	
			AM	PM
US 50 EB	Latrobe Rd off-ramp	Diverge	22 / C	31 / D
	El Dorado Hills Blvd off-ramp	Diverge	14 / B	26 / C
	Latrobe Rd on-ramp	Merge	14 / B	26 / C
	El Dorado Hills Blvd on-ramp to Bass lake Rd off-ramp	Basic	10 / A	20 / C
	Bass Lake Rd off-ramp	Diverge	14 / B	25 / C
	Bass Lake Rd on-ramp	Merge	16 / B	28 / C
	Bass Lake Rd on-ramp to Cambridge Rd off-ramp	Basic	13 / B	25 / C
	Cambridge Rd off-ramp	Diverge	18 / B	31 / D
	Cambridge Rd on-ramp	Merge	18 / B	26 / C
US 50 WB	Cambridge Rd off-ramp	Diverge	27 / C	22 / C
	Cambridge Rd on-ramp to Bass Lake Rd off-ramp	Merge	19 / B	12 / B
	Cambridge Rd on-ramp to Bass Lake Rd off-ramp	Basic	23 / C	16 / B
	Bass Lake Rd off-ramp	Diverge	28 / D	21 / C

TABLE 6: FREEWAY FACILITY PEAK HOUR LEVEL OF SERVICE – EXISTING CONDITIONS

Freeway	Segment	Facility Type	Existing Density[1] / LOS	
			AM	PM
	Bass Lake Rd on-ramp	Merge	31 / D	20 / C
	Bass Lake Rd on-ramp to El Dorado Hills Blvd off-ramp	Basic	29 / D	17 / B
	El Dorado Hills Blvd off-ramp	Diverge	33 / D	22 / C
	El Dorado Hills Blvd on-ramp	Merge	34 / D	24 / C

Notes: [1]Density reported as passenger cars per mile per lane. Density is not reported for LOS F operations. Analysis based on HCM 2010.

Source: Fehr & Peers, 2014

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4.5 PEDESTRIAN CIRCULATION

Attached or landscape-separated detached sidewalks are provided intermittently throughout the project study area. Given the primarily rural residential nature of El Dorado Hills and Cameron Park, it is not necessarily the desire to provide sidewalks in all areas. That said, some of the following major roadway facilities lack sidewalks and result in pedestrian network gaps:

- Both sides of Bass Lake Road from US 50 to Hollow Oak Drive; however, this area currently serves only a few large residential parcels with no services within walking distance.
- Both sides of Country Club Drive west of Trinidad Drive; however, there are limited land uses that would benefit from sidewalks near the street.
- Sidewalk is also missing on the south side of Country Club Drive between Merry Chase Drive and opposite Placitas Drive (Cameron Park Library driveway). This segment is adjacent to Blue Oak Elementary/Charter Montessori School and Camerado Springs Middle School.
- Country Club Drive lacks sidewalk from approximately 300 feet east of Placitas Drive to 200 west of Cameron Park Drive.
- Cambridge Road and Flying "C" Road (south of US 50) lack sidewalk except for the east side near the US 50 interchange.

Most study intersections are unsignalized without physical pedestrian features such as curb ramps and marked crosswalks. The three signalized study intersections do provide controlled pedestrian crossings or are otherwise restricted. As described in Section 4.6 below, Class I bicycle paths double as pedestrian facilities. For example, the Class I path along the east side of Bass Lake Road between Hollow Oak Drive and Serrano Parkway provide redundant pedestrian facilities to the detached sidewalk on the west side.

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4.6 BICYCLE CIRCULATION

Existing and proposed bicycle facilities within the study area are displayed in Figure 5. Bicycle facilities can be classified into three categories.

- Class I Bicycle Path– Off-street bike paths within exclusive right-of-way; usually shared with pedestrians
- Class II Bicycle Lane – Striped on-road bike lanes adjacent to the outside travel lane on preferred corridors for biking
- Class III Bicycle Route– Shared on-road facility, usually delineated by signage and pavement markings

According to the *El Dorado Bicycle Transportation Plan, 2010 Update (El Dorado County Transportation Commission)*, mapping information provided by the County, and field observations, the following major bikeway facilities are present within the study area:

- Class II bicycle lanes on Serrano Parkway , White Rock Road, Latrobe Road and portions of Silva Valley Parkway, Country Club and El Dorado Hills Drive
- Class I bicycle path, Bass Lake Road (Hollow Oak Drive to Serrano Parkway), New York Creek Nature Trail, which is adjacent to El Dorado Hills Drive on the east side between Serrano Parkway to St Andrews Drive

Figure 5 identifies existing and planned bikeways presented in the *El Dorado Bicycle Transportation Plan, 2010 Update and the Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for 2035.*

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Figure 5: Bicycle Facilities [Revised Figures Pending]

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4.7 TRANSIT

El Dorado County Transit Authority (El Dorado Transit) provides public transit service within the project area. El Dorado Hills is currently served by El Dorado Transit Dial-A-Ride services, Commuter Service, and the Iron Point Connector Route. Both the Commuter Service and the Iron Point Connector Route serve only the El Dorado Hills Park-and-Ride Lot and do not circulate within the community.

In May 2013, The EDCTC completed the *El Dorado Hills Community Transit Needs Assessment and US 50 Corridor Operations Plan* (Plan), which explores how the recent growth and projected development impact the need for transit services, and identifies the most appropriate type and level of service needed given the demand. All three services are addressed in the Plan and are described briefly below.

- **Dial-A-Ride** service is a demand response service designed for seniors and disabled passengers, with limited access available for the general public. The service is available on a first-come, first-serve basis Monday through Friday between the hours of 7:30 AM and 5:00 PM, and between 8:00 AM and 5:00 PM on Saturdays and Sundays. El Dorado Hills is one of twelve geographic zone service areas.
- **Commuter Service** is offered Monday through Friday between El Dorado County and downtown Sacramento. Morning departures from El Dorado County locations are scheduled from 5:10 AM to 8:00 AM, and afternoon eastbound departures from Sacramento occur from 2:40 PM to 6:00 PM. A reverse commuting service is offered. The El Dorado Hills Park-and-Ride located in Town Center at the White Rock Road/Post Street intersection is the nearest stop location for the project. According to the Plan, nearly half of commute passengers boarded at the El Dorado Hills Park-and-Ride in the mornings, which makes this location the highest boarding stop offered as part of the Commuter Service.
- **Iron Point Connector (IPC) Route** provides direct service from El Dorado County to Folsom with connections to Sacramento Regional Transit light rail on weekdays. This route runs twice in the morning and twice in the afternoon from the Central Transit Center to the Iron Point Light Rail Station in Folsom. The El Dorado Hills Park-and-Ride located in Town Center at the White Rock Road/Post Street intersection is the nearest stop location for the project.
- **Cameron Park Route** is a fixed-route service, which begins at the Missouri Flat Transfer Center in Placerville, serves the Folsom Lake College/El Dorado Center, then continues to Cameron Park. After serving Cameron Park in a clockwise direction, the route serves the Cambridge Park-and-Ride and returns via Country Club Drive. The Cameron Park Route operates four runs daily and

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one morning express run with limited stops. Deviations are not permitted on the express run. Monthly ridership was 3,000 passengers for fiscal year 2011-2012.[3]

The El Dorado Hills Park-and-Ride lot provides 120 parking spaces. The Plan reports that parking demand exceeds supply. Specifically, Table 19 of the Plan reports 108-percent parking utilization in 2005 for the El Dorado Park-and-Ride based on Sacramento Area Council of Governments and Caltrans data. Similarly, the Cambridge Road Park-and-Ride lot was reported to have 142-percent parking utilization in 2005; however, this lot was expanded in size in 2006.

The Plan also describes other transit providers that serve western El Dorado County, including the Senior Shuttle Program which has recently initiated service in El Dorado Hills.

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[3] Ridership data derived from El Dorado Transit Administrative Operations Reports, July-December 2010; Summary report January-June, 2011 presented in the El Dorado Hills Community Transit Needs Assessment and US 50 Corridor Operations Plan, May 2013.

5.0 EXISTING PLUS PROJECT CONDITIONS

5.1 TRIP GENERATION

Based on information contained in the Notice of Preparation and subsequent correspondence with County staff and the applicant, Fehr & Peers prepared trip generation estimates for the project based on methodologies and trip rates presented in Trip Generation, 9th Edition (Institute of Transportation Engineers), with adjustments to account for internal vehicle trips and walking trips given the mix of land use proposed and the location of the project relative to other services.

This traffic study determined that the combined effects of the Project's land use, location, and development scale would contribute to a reduction in off-site average weekday vehicle "trips" (e.g., one vehicle trip is when a person drives from their home to shopping or their job. Their return drive home is another trip). This reduction is due largely to the Project's proximity to commercial and retail services and connections between the project and these services. That is, most of the reduction in total off-site vehicle trips generated by the Project is attributable to those trips beginning on the Project site, traveling to adjacent services, and ending on the Project site without using off-site roadways or by walking.

Traditionally, traffic engineers and transportation planners have estimated internalization of project trips using one of two methods. First, they would estimate it based on their professional judgment. Alternatively, professionals relied on the Institute of Transportation Engineers' (ITE) internalization methodology presented in the ITE Trip Generation Handbook. Although this has been applied in thousands of studies in California, the methodology was limited as it was based on only six surveys in Florida. Additionally, the ITE internalization methodology only accounts for the land use types on the mixed-use site. Given the limited input information (land use amount and type) and the limited range of data (six surveys), the accuracy of the internalization estimates has recently been found to generally under-estimate internalization of trips from mixed-use projects.

Recognizing the limitations of the simplified methodology applied in the ITE handbook, the United States Environmental Protection Agency commissioned a study to develop a more substantial, statistically superior methodology. This methodology, identified as MXD (or mixed-use development trip generation), begins with ITE rates and developed trip internalization estimates based on a series of factors tied to numerous site attributes. It should also be noted that the MXD model has been developed in cooperation with the US Environmental Protection Agency (EPA) and ITE and that ITE is currently reviewing the model for potential inclusion in their updated recommended practice for evaluating MXD projects. The MXD methodology is described in greater detail below.

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MXD Trip Internalization Methodology

The internal capture percentage reported is not an "assumed" number, but rather is a number that was derived using a best practices trip generation model designed specifically for mixed-use development (MXD) projects and estimates trip generation and internal capture by adjusting trip generation rates to account for the influence of built environment variables. A variety of research studies have demonstrated that these variables influence vehicle trip generation.

The MXD model used was developed based on household travel survey data obtained from 239 existing mixed-use developments in six metropolitan regions throughout the U.S., including developments in Sacramento. The internal capture percentage calculated for the project is reflective of the land uses that would be developed as part of the Project and land use near the project, which would reduce the need to travel beyond the Project site or surrounding area. A set of 16 independent mixed use sites that were not included in the initial model were tested to help validate the model. Among the validation sites, use of the MXD model produced superior statistical performance when comparing the model results to observed data. Given the statistical robustness of the MXD model, it was deemed the most appropriate approach for estimating internalization of project trips.

MXD Model Inputs and Trip Generation Estimates

To determine the amount of trips that would be internal to the Project site, an MXD trip generation estimate was prepared. The MXD analysis first begins with gross trip rates identified in the Institute of Transportation Engineers' Trip Generation (9th Edition, 2012). It then incorporates the MXD methodology for "matching" trips to estimate the amount of internalization within the project site. Table 7 summarizes project land use, assumed trip rates, calculated trip generation totals, and MXD adjustments.

The entire project is projected to generate about 31,020 daily vehicle trips, 2,380 AM peak hour vehicle trips and 3,360 PM peak hour vehicle trips. The daily total includes a reduction of about 8,700 vehicle trips for internalization, which are vehicle trips made that remain within the project site, which includes internalization school trips and local-serving retail trips. Please note that school trip internalization was capped at 75% (75% of all school trips will stay internal to the site) and internalization of local-serving retail trips was capped at 60%. The reduction in schools trips is most notable in the AM peak hour. An additional reduction of 14 vehicle trips was made in acknowledgement of feasible walking trips in lieu of vehicle trips.

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TABLE 7: TRIP GENERATION – MARBLE VALLEY

Land Use	Quantity	ITE Code	Trip Rate			Trips						
			Daily	AM	PM	Daily	AM			PM		
							In	Out	Total	In	Out	Total
Multifamily Housing (Dwelling Units)	501	220	6.65	0.51	0.62	3,332	51	205	256	202	109	311
Single Family Detached Housing (Dwelling Units)	2,735	210	9.52	0.75	1.00	26,037	513	1,538	2,051	1,723	1,012	2,735
Office Park (1,000 Square Feet)[1]	375	710	9.56	1.47	1.33	3,585	485	66	551	85	413	498
Village Commercial (1,000 Square Feet)	100	820	42.70	0.96	3.71	4,270	60	36	96	178	193	371
Middle School (Enrollment)[2]	779	522	1.62	0.54	0.16	1,262	227	194	421	62	63	125
Elementary School (Enrollment)[2]	614	520	1.29	0.45	0.15	792	152	124	276	45	47	92
Agriculture Tourism (Employees)	20	710	11.03	1.56	1.49	221	27	4	31	5	25	30
Village Park (Acres)	47	412	2.28	0.02	0.09	107	1	0	1	3	1	4
Gross Trips						39,606	1,516	2,167	3,683	2,303	1,863	4,166
Internal Capture						8,703	497	494	991	405	405	809
Walking Trips						14	1	1	2	1	1	2

TABLE 7: TRIP GENERATION – MARBLE VALLEY

Land Use	Quantity	ITE Code	Trip Rate			Trips						
							AM			PM		
			Daily	AM	PM	Daily	In	Out	Total	In	Out	Total
Net Trips Made by Motor Vehicle						30,889	1,018	1,672	2,690	1,897	1,457	3,355

Notes: [1]Trip generation developed using regression equation and equivalent trip generation rates are reported.
[2]School enrollment is based on enrollment at existing elementary and middle schools in El Dorado Hills and Cameron Park. (Elementary Schools: Oak Meadow Elementary, William Brooks Elementary and Blue Oak Elementary, Middle Schools: Camerado Springs Middle School and Rolling Hills Middle School).

Source: Trip Generation, 9th Edition (Institute of Transportation Engineers)

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5.2 TRIP DISTRIBUTION AND ASSIGNMENT

The expected distribution of project trips is shown on Figure 6. The distribution was developed using the following sources and analytical techniques:

- Existing travel patterns based on the existing traffic counts
- Traffic assignment using the validated base year El Dorado County travel demand forecasting model
- Project access and internal circulation

As shown on Figure 6, the largest share of project trips (61 percent) will use US 50 to/from the west in the morning and evening with 23 percent traveling on US 50 to/from the east. Travel to/from the north on Bass Lake Road is 7 percent. Figure 7 shows only project trips based on the trip distribution shown on Figure 6. The resulting AM and PM peak hour traffic volumes under existing plus project conditions are presented on Figure 8.

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Figure 6: Marble Valley Trip Distribution [Revised Figures Pending]

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Figure 7: Peak Hour Traffic Volumes and Lane Configurations – Project Only Trip Assignment [Revised Figures Pending]

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Figure 7b: Peak Hour Traffic Volumes and Lane Configurations – Project Only Trip Assignment [Revised Figures Pending]

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Figure 8: Peak Hour Traffic Volumes and Lane Configurations – Existing Plus Project Conditions [Revised Figures Pending]

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Figure 8b: Peak Hour Traffic Volumes and Lane Configurations – Existing Plus Project Conditions [Revised Figures Pending]

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5.3 PEAK HOUR VEHICLE LEVEL OF SERVICE

5.3.1 INTERSECTIONS

Analysis results, which are presented in Table 8, indicate that many of the study intersections that are stop controlled will operate unacceptably with increased traffic from build-out of the proposed project added to existing conditions. Traffic generated by the project result in potential impacts at the following locations:

- Bass Lake Road/Serrano Parkway (Intersection 1) – This intersection operates acceptably at LOS D and B during the AM and PM peak hours, respectively, without the project. The project results in unacceptable (LOS F) conditions during the AM peak hour.
- Bass Lake Road/Country Club Drive (Intersection 4) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection operates unacceptably at LOS F without the project during the AM peak hour and acceptably at LOS C during the PM peak hour. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM peak hour operations. The project would also result in unacceptable (LOS F) conditions during the PM peak hour.
- Bass Lake Road/US 50 westbound ramps (Intersection 5) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection operates acceptably at LOS B and LOS C during the AM and PM peak hours, respectively, without the project. The project results in unacceptable (LOS F) conditions during the AM and PM peak hours.
- Bass Lake Road/US 50 eastbound ramps (Intersection 6) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection operates acceptably at LOS C during the AM peak hour and unacceptably at LOS F during the PM peak hour without the project. The project would also result in unacceptable (LOS F) conditions during the AM peak hour, and according to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the PM peak hour.
- Marble Valley Parkway/Marble Mountain Road (Intersection 7) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection operates acceptably at LOS A without the project during the AM and PM peak hours. The project results in unacceptable (LOS F) conditions during the AM and PM peak hours.
- Marble Valley Parkway/Marble Ridge Road (Intersection 8) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection

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operates acceptably at LOS A without the project during the AM and PM peak hours. The project results in unacceptable (LOS F) conditions during the AM and PM peak hours.

- Cambridge Road/Country Club Drive (Intersection 9) – This intersection operates acceptably at LOS E and C during the AM and PM peak hours, respectively, without the project. The project results in unacceptable (LOS F) conditions during the AM peak hour.
- Cambridge Road/Knollwood Drive (Intersection 10) – This intersection operates unacceptably at LOS F during the AM peak hour and acceptably at LOS E during the PM peak hour without the project. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM peak hour. The project would also result in unacceptable (LOS F) conditions during the PM peak hour.
- Cambridge Road/US 50 eastbound ramps (Intersection 12) – This intersection operates acceptably at LOS B and E during the AM and PM peak hours, respectively, without the project. The project results in unacceptable (LOS F) conditions during the AM and PM peak hours.
- Cambridge Road/Flying C Road/Crazy Horse Road (Intersection 13) – This intersection operates acceptably at LOS B during the AM and PM peak hours without the project. The project results in unacceptable (LOS F) conditions during the AM peak hour.
- El Dorado Hills Boulevard/Park Drive/Saratoga Way (Intersection 19) – This intersection operates acceptably at LOS D and C during the AM and PM peak hours, respectively, without the project. The project results in unacceptable (LOS F) conditions during the AM peak hour.
- Latrobe Road/Town Center Drive (Intersection 21) – This intersection operates acceptably at LOS C and E during the AM and PM peak hours, respectively, without the project. The project results in unacceptable (LOS F) conditions during the PM peak hour.

5.3.2 ROADWAY SEGMENTS

Analysis results, which are presented in Table 9, indicate that all study roadway segments will operate acceptably. Traffic generated by the project is not anticipated to result in roadway segment impacts according to established significance criteria. A comparison of the results in Table 9 to the results in Table 8 shows that the number of through travel lanes on the study area roadways is adequate, but that improvements are needed at intersections, which are the locations where drivers experience delay traveling through the study area.

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TABLE 8: INTERSECTION LOS AND DELAY – EXISTING PLUS PROJECT CONDITIONS

Intersection	LOS Target	Control	Existing Conditions (LOS / Delay)		Existing Plus Project (LOS / Delay)	
			AM	PM	AM	PM
1. Bass Lake Road/Serrano Parkway	E	AWSC	D / 30	B / 13	***F / 61***	C / 18
2. Bass Lake Road/Hollow Oak Drive	E	SSSC	C / 20	B / 14	D / 26	D / 27
3. Bass Lake Road/Old Bass Lake Road	D	SSSC	C / 20	B / 12	D / 26	B / 14
4. Bass Lake Road/Country Club Drive	D	SSSC	**F / >180**	C / 22	***F / > 180***	***F / 129***
5. Bass Lake Road/US WB 50 Ramps	D	SSSC	B / 11	C / 16	***F / > 180***	***F / > 180***
6. Bass Lake Road/US EB 50 Ramps	D	SSSC	C / 20	**F / 58**	***F / > 180***	***F / > 180***
7. Marble Valley Parkway/Marble Mountain Road	D	SSSC	A / 9	A / 9	***F / > 180***	***F / > 180***
8. Marble Valley Parkway/Marble Ridge Road	D	SSSC	A / 9	A / 9	***F / > 180***	***F / > 180***
9. Cambridge Road/Country Club Drive	E	AWSC	E / 39	C / 18	***F / 88***	E / 39
10. Cambridge Road/Knollwood Drive	E	SSSC	**F / 82**	E / 41	***F / 164***	***F / 77***
11. Cambridge Road/Merrychase Drive/US 50 WB Ramps	E	Signal	D / 54	C / 28	E / 66	D / 36
12. Cambridge Road/US 50 EB Ramps	E	SSSC	B / 14	E / 45	***F / 108***	***F / > 180***
13. Cambridge Road/Flying C Road/Crazy Horse Road	E	SSSC	B / 12	B / 11	***F / > 180***	D / 29
14. Flying C Road/Marble Valley Parkway	E	SSSC	A / 0	A / 0	B / 12	B / 13

TABLE 8: INTERSECTION LOS AND DELAY – EXISTING PLUS PROJECT CONDITIONS

Intersection	LOS Target	Control	Existing Conditions (LOS / Delay)		Existing Plus Project (LOS / Delay)	
			AM	PM	AM	PM
15. El Dorado Hills Boulevard/US 50 WB Ramps	E	Signal	D / 43	C / 29	E / 62	D / 36
16. Latrobe Road/US 50 EB Ramps	E	Signal	B / 15	B / 14	B / 12	C / 21
17. Silva Valley Parkway/US 50 WB Ramps	E	Signal	Does Not Exist			
18. Silva Valley Parkway/US 50 EB Ramps	E	Signal	Does Not Exist			
19. El Dorado Hills Boulevard/Park Drive/Saratoga Way	E	Signal	D / 36	C / 25	***F / 103***	C / 23
20. Park Drive/El Dorado Hills Boulevard	E	Signal	E / 56	B / 15	E / 78	C / 20
21. Latrobe Road/Town Center Drive	E	Signal	C / 29	E / 75	C / 28	***F / 165***
22. Latrobe Road/White Road	E	Signal	C / 35	D / 44	D / 35	D / 44

Notes: SSSC = side-street stop-control, AWSC = all-way stop control

Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.

The average delay is measured in seconds per vehicle. For signalized and AWSC intersections, the delay shown is the average control delay for the overall intersection. For SSSC intersections, the LOS and control delay for the worst movement is shown.

Intersection LOS and delay is calculated based on the procedures and methodology contained in the *HCM* (TRB, 2000). Intersections 1-14 and 22 are analyzed in Synchro 7. Intersections 15-16 and 19-21 are analyzed in SimTraffic.

Source: Fehr & Peers, 2014

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5.3.3 FREEWAY FACILITIES

Analysis results, which are presented in Table 10, indicate that all but three study freeway facilities will operate acceptably. Traffic generated by the project will result in LOS F conditions at the US 50 westbound on-ramp from Bass Lake Road, the westbound off-ramp to El Dorado Hills Boulevard, and the westbound on-ramp from El Dorado Hills Boulevard.

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TABLE 9: ROADWAY SEGMENT PEAK HOUR LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS

Roadway	Segment	Facility Type	Existing Volume / Volume – Capacity (V/C) Ratio / LOS		Existing + Project Volume / Volume – Capacity (V/C) Ratio / LOS	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Bass Lake Rd	Green Valley Rd to Bridlewood Dr	2 lane arterial	503 / 0.30 / C[1]	486 / 0.29 / C[1]	530 / 0.32 / C[1]	510 / 0.31 / C[1]
	Bridlewood Dr to Serrano Pkwy	2 lane arterial	726 / 0.44 / C[1]	772 / 0.47 / C[1]	820 / 0.50 / C[1]	890 / 0.54 / C[1]
	Serrano Pkwy to Hollow Oak Dr	2 lane arterial	933 / 0.57 / D	869 / 0.53 / D	1,170 / 0.71 / D	1,090 / 0.66 / D
	Hollow Oak Dr to Country Club Dr	2 lane arterial	1,023 / 0.62 / D	928 / 0.56 / D	1,270 / 0.77 / D	1,160 / 0.70 / D
	Country Club Dr to US 50	2 lane arterial	1,128 / 0.68 / D	1,067 / 0.65 / D	1,490 / 0.90 / D	1470 / 0.89 / D
Cambridge Rd	Green Valley Rd to Oxford Rd	2 lane arterial	381 / 0.23 / C[1]	394 / 0.24 / C[1]	410 / 0.25 / C[1]	430 / 0.26 / C[1]
	Oxford Rd to Knollwood Dr[2]	2 lane arterial	641 / 0.39 / C[1]	764 / 0.46 / C[1]	710 / 0.43 / C[1]	830 / 0.50 / C[1]
	Knollwood Dr to Country Club Dr[2]	2 lane arterial	617 / 0.37 / C[1]	738 / 0.45 / C[1]	770 / 0.47 / C[1]	910 / 0.55 / C[1]
	Country Club Dr to US 50	2 lane arterial	959 / 0.58 / D	993 / 0.60 / D	1,120 / 0.68 / D	1,130 / 0.68 / D
Cameron Park Dr	Green Valley Rd to Alhambra Dr	2 lane arterial	654 / 0.40 / C[1]	793 / 0.48 / C[1]	660 / 0.40 / C[1]	800 / 0.48 / C[1]
	Alhambra Dr to Oxford Rd	2 lane arterial	1,211 / 0.73 / D	1,434 / 0.87 / D	1,220 / 0.74 / D	1,450 / 0.88 / D
	Oxford Rd to Hacienda Dr	2 lane arterial	1,080 / 0.65 / D	1,612 / 0.98 / E	1,080 / 0.65 / D	1,615 / 0.98 / E

TABLE 9: ROADWAY SEGMENT PEAK HOUR LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS

Roadway	Segment	Facility Type	Existing Volume / Volume – Capacity (V/C) Ratio / LOS		Existing + Project Volume / Volume – Capacity (V/C) Ratio / LOS	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
	Hacienda Dr to US 50	4 lane undivided arterial	1,084 / 0.35 / C[1]	1,636 / 0.52 / C[1]	1,090 / 0.35 / C[1]	1,670 / 0.53 / C[1]
Country Club Dr	Bass Lake Rd to Merrychase Dr	2 lane arterial	518 / 0.31 / C[1]	310 / 0.19 / C[1]	560 / 0.34 / C[1]	430 / 0.26 / C[1]
	Merrychase Dr to Knollwood Dr	2 lane arterial	481 / 0.29 / C[1]	300 / 0.18 / C[1]	520 / 0.32 / C[1]	410 / 0.25 / C[1]
	Knollwood Dr to Cambridge Rd	2 lane arterial	338 / 0.20 / C[1]	281 / 0.17 / C[1]	350 / 0.21 / C[1]	350 / 0.21 / C[1]
	Cambridge Rd to Royal Dr	2 lane arterial	283 / 0.17 / C[1]	297 / 0.18 / C[1]	300 / 0.18 / C[1]	320 / 0.19 / C[1]
	Royal Dr to Cameron Park Dr	2 lane arterial	215 / 0.13 / C[1]	362 / 0.22 / C[1]	220 / 0.13 / C[1]	360 / 0.22 / C[1]
Durock	US 50 to Business Dr[3]	2 lane arterial	319 / 0.19 / C[1]	556 / 0.34 / C[1]	340 / 0.21 / C[1]	580 / 0.35 / C[1]
	Business Dr to S. Shingle Rd	2 lane arterial	322 / 0.2 / C[1]	547 / 0.33 / C[1]	330 / 0.20 / C[1]	560 / 0.34 / C[1]

Notes: [1]LOS at this location is C or better.
[2]Cambridge Road between Country Club Drive and Oxford Road is allowed to operate at LOS F (maximum V/C/ ratio of 1.07) until 2018 per County standard
[3]Durock Road/Cameron Park Drive between Coach Lane and Robin Lane is allowed to operate at LOS F (maximum V/C ratio of 1.11) until 2018 per County standard.
Volume-to-Capacity ratio and LOS is based on the HCM 2010 peak hour level of service thresholds.
Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.

Source: Fehr & Peers, 2014

TABLE 10: FREEWAY FACILITY PEAK HOUR LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS

Freeway	Segment	Facility Type	Existing Density[1] / LOS		Existing + Project Density[1] / LOS	
			AM	PM	AM	PM
US 50 EB	Latrobe Rd off-ramp	Diverge	22 / C	31 / D	24 / C	35 / E
	El Dorado Hills Blvd off-ramp	Diverge	14 / B	26 / C	16 / B	30 / D
	Latrobe Rd on-ramp	Merge	14 / B	26 / C	18 / B	32 / D
	El Dorado Hills Blvd on-ramp to Bass lake Rd off-ramp	Basic	10 / A	20 / C	13 / B	26 / D
	Bass Lake Rd off-ramp	Diverge	14 / B	25 / C	19 / B	34 / D
	Bass Lake Rd on-ramp	Merge	16 / B	28 / C	19 / B	31 / D
	Bass Lake Rd on-ramp to Cambridge Rd off-ramp	Basic	13 / B	25 / C	16 / B	30 / D
	Cambridge Rd off-ramp	Diverge	18 / B	31 / D	21 / C	35 / D
	Cambridge Rd on-ramp	Merge	18 / B	26 / C	21 / C	29 / D
US 50 WB	Cambridge Rd off-ramp	Diverge	27 / C	22 / C	29 / D	26 / C
	Cambridge Rd on-ramp to Bass Lake Rd off-ramp	Merge	19 / B	12 / B	22 / C	15 / B
	Cambridge Rd on-ramp to Bass Lake Rd off-ramp	Basic	23 / C	16 / B	26 / C	19 / C
	Bass Lake Rd off-ramp	Diverge	28 / D	21 / C	31 / D	24 / C

TABLE 10: FREEWAY FACILITY PEAK HOUR LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS

Freeway	Segment	Facility Type	Existing Density[1] / LOS		Existing + Project Density[1] / LOS	
			AM	PM	AM	PM
	Bass Lake Rd on-ramp	Merge	31 / D	20 / C	***- / F***	26 / C
	Bass Lake Rd on-ramp to El Dorado Hills Blvd off-ramp	Basic	29 / D	17 / B	44 / E	23 / C
	El Dorado Hills Blvd off-ramp	Diverge	33 / D	22 / C	***- / F***	28 / D
	El Dorado Hills Blvd on-ramp	Merge	34 / D	24 / C	***- / F***	28 / D

Notes: [1]Density reported as passenger cars per mile per lane. Density is not reported for LOS F operations. Analysis based on HCM 2010.
Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.
Source: Fehr & Peers, 2014

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5.4 PEDESTRIAN CIRCULATION

The project proposes pedestrian facilities by implementing a comprehensive network of pedestrian trails and pathways to provide connectivity among land uses for non-motorized transportation and public recreational enjoyment throughout the 4-mile long valley. The proposed trails are designed as paved Class I multi-use paths along the three primary roadways of Marble Valley Parkway, Marble Lake Boulevard (nicknamed "The Gateway Mile") and Lime Rock Valley Road to serve the proposed residential, commercial, and public facilities in the northern half of the community. Less formal trails are proposed to traverse the preserved open space areas. Pathways will lead to the proposed Foundation Regional Park in the southern portion of the community and a Class I bike path will connect through the proposed Lime Rock Valley Specific Plan to the El Dorado Trail.

5.5 BICYCLE CIRCULATION

The project proposes bicycle facilities by implementing Class I multi-use paths and Class II bicycle lanes along the major transportation corridors, particularly in the northern portion of the project. Less formal trails are proposed to traverse the preserved open space areas. Pathways will lead to the proposed Foundation Regional Park in the southern portion of the community and a Class I bike path will connect through the proposed Lime Rock Valley Specific Plan to the El Dorado Trail.

5.6 TRANSIT

As described above, the project will provide bicycle and pedestrian connections to existing and planned bicycle and pedestrian facilities and will provide a 100 to 120 space park-n-ride lot. To accommodate possible future public transit service, transit stops and bus shelters may be provided within the on-site portions of Marble Valley Parkway and Marble Lake Boulevard near the intersection of Lime Rock Valley Road. Based on ridership data presented in the *El Dorado Hills Community Transit Needs Assessment and US 50 Corridor Transit Operations Plan, Final Report,* 41,760 annual commute trips are made by El Dorado Hills residents using El Dorado Transit Commuter Service. Residents of El Dorado Hills account for about 72 percent of boardings at the El Dorado Hills Park-n-Ride lot, which includes riders that park in the lot and riders that use other means to access the service (i.e., walk, bike, and drop-off).

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Based on this information, about one annual commute trip is generated per El Dorado Hills resident, assuming a population of 42,100 (2010 Census) in El Dorado Hills. Therefore, the project's 3,236 dwelling units could result in demand of about 8,400 annual commute trips (assuming a household population of 2.6 persons), or about 32 commute trips per weekday.

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6.0 CUMULATIVE CONDITIONS

6.1 TRAVEL DEMAND FORECASTS

For this project, the El Dorado County model was utilized to develop forecasts in the study area. The El Dorado County model has a base year of 2010 and a forecast year of 2035 (Version EDC_CAT_03_2014) with an updated forecast year based on a 75/25 growth allocation scenario, which allocates a 75 percent of growth to the Community Regions and urban areas and 25 percent in Rural Regions. However, as is standard practice with large area travel demand models, a thorough model review was completed and the model was refined to ensure that it produced reasonable results in the study area.

The following refinements were implemented in the study area:

- Added roadway network detail
- Updated land use to reflect 2012 conditions
- Refined the traffic analysis zones (TAZs) in order to get more refined loading of trips in the study area
- Updated network attributes in the study area to reflect existing conditions (e.g. verified roadway network speeds, number of lanes on the roadway, and roadway capacities to reflect existing conditions)
- Updated the future year roadway network in the study area to only reflect the SACOG Metropolitan Transportation Plan (MTP) constrained roadway network, which is consistent with the County's Capital Improvement Program (CIP)
- Updated the future land use information to reflect approved and reasonably foreseeable projects in the study area
- Added peak hour assignment functionality

Specific information related to the model's performance is described below:

6.1.1 BASE YEAR MODEL VALIDATION

Before any model can be applied for use in a major specific plan application, it must first satisfy specific validation criteria identified by Caltrans, the Federal Highways Administration (FHWA), and the California Transportation Commission (CTC). These criteria were developed to ensure that a model is developed

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such that it can accurately forecast existing conditions based on land use and roadway network information, which improves the model's ability to accurately forecast future conditions. The state-of-the-practice for developing defensible forecasts for changes in the roadway network and/or changes in proposed land use is to use a valid base year model.

The first step of any model validation is to ensure that the model generally produces similar results to existing counts. Please note that, since the model is being used to generate AM peak hour and PM peak hour forecasts, the model must be valid at our study facilities for both time periods.

Key metrics for model validation guidelines are described below:

- The volume-to-count ratio is computed by dividing the volume assigned by the model and the actual traffic count for individual roadways (or intersections). The volume-to-count ratio should be less than 10%.
- The deviation is the difference between the model volume and the actual count divided by the actual count. Caltrans provides guidance on the maximum allowable deviation by facility type (e.g. lower-volume roadways can have a higher deviation than higher-volume roadways). 75% of the study facilities should be within the maximum allowable deviation.
- The correlation coefficient estimates the correlation between the actual traffic counts and the estimated traffic volumes from the model. The correlation coefficient should be greater than 0.88.
- The percent Root Mean Square Error (RMSE) is the square root of the model volume minus the actual count squared divided by the number of counts. It is a measure similar to standard deviation in that it assesses the accuracy of the entire model. The RMSE should be less than 40%.

The model validation statistics are summarized in Table 11. As shown in Table 11, the model meets or exceeds the identified model validation statistics in the study area. As such, the model is deemed appropriate for use in this assessment.

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TABLE 11: TRAVEL DEMAND FORECASTING MODEL SUB AREA VALIDATION

Metric	Model Validation	Maximum Allowable Deviation
AM Peak Hour – 114 Count Locations		
Model/Count Ratio	1.04	between 0.90 and 1.10
Percent Within Caltrans Maximum Deviation	85%	> 75%
Percent Root Mean Square Error	24%	< 40%
Correlation Coefficient	0.98	> 0.88
PM Peak Hour – 114 Count Locations		
Model/Count Ratio	1.06	between 0.90 and 1.10
Percent Within Caltrans Maximum Deviation	86%	> 75%
Percent Root Mean Square Error	21%	< 40%
Correlation Coefficient	0.98	> 0.88

Source: Fehr & Peers, 2014

6.1.2 FUTURE (YEAR 2035) MODELING ASSUMPTIONS

All modifications incorporated into the validated Base Year model were incorporated into the future year (2035) travel demand forecasting model. Additionally, as previously mentioned, the model was also updated to include only roadway improvements consistent with the SACOG's MTP and the County's CIP.

Table 12 below describes capacity-enhancing improvements to roadway facilities in the project study area that are planned to occur prior to year 2035 and are included in the cumulative analysis. This information is primarily based on El Dorado County's CIP (Section 8.1 – west Slop Road/Bridge Individual Project Summaries) and SACOG's MTP/SCS (Appendix A1: MTP/SCS Project List). All relevant projects with the El Dorado County Department of Transportation as the lead agency are identified in Table 12. The validated El Dorado County model was used to develop AM and PM peak hour forecasts for the following scenarios:

- Cumulative No Project – Corresponds to a 2035 No Project Cumulative horizon that accounts for planned (and funded) roadway improvements, land use growth consistent with the 2004 General

Plan, and with approved and reasonably foreseeable projects in the study area, including the following:

- Bass Lake Hills Specific Plan
- Cameron Estates
- Carson Creek Specific Plan
- Dixon Ranch
- Lime Rock Valley Specific Plan
- Promontory
- Rancho Dorado
- Ridgeview
- San Stino Residential Project
- Serrano
- Tilden Park
- Valley View Specific Plan
- Central El Dorado Hills Specific Plan

Please note that this scenario assumes the allowable development levels based on the 398-lot Marble Valley Master Plan, which was previously approved in 1998.

- Cumulative Plus Proposed Project – Includes similar assumptions to the Cumulative No Project scenario, but incorporates buildout of the Proposed Project and associated roadway network.

For each scenario listed above, roadway segment and intersection turning movement volumes were pulled directly from the scenario-specific models and adjusted. Consistent with state-of-the-practice travel demand forecasting application, model error was corrected using the methodologies identified in the National Cooperative Highway Research Program Report 255 (Transportation Research Board, 1982) using the "difference method," which adds the forecasted growth in traffic volume to existing roadway segment and intersection counts.

Figures 7 and 8 present AM and PM peak hour traffic volume forecasts for cumulative conditions without and with the proposed project, respectively.

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TABLE 12: CAPACITY–ENHANCING ROADWAY IMPROVEMENTS (ASSUMED COMPLETION BY 2035)

Project Name	Project Description	Estimated Completion
Bass Lake Road Frontage Improvements	Perform roadway operational improvements on Bass Lake Road constructed by Silver Springs development.	By 2020
Bass Lake Road Improvements - Phase 1A	Widen and reconstruct Bass Lake Road from US 50 to Hollow Oak Road to 2-lane divided road with 4-foot shoulders and bicycle/pedestrian paths. Includes an 8-foot median, sidewalk, and bike lane from Hollow Oak Road to US 50; median improvements only from Hollow Oak Road to Serrano Parkway; improvements of park-and-ride lot with frontage road improvement to Old Bass Lake Road and Tierra de Dios. (See ELD19225/CIP#GP166 for Phase 1B). CIP#66109	By 2035
Bass Lake Road Widening	Widen Bass Lake Road from US 50 to Silver Springs Pkwy to accommodate 4 lanes of traffic (divided), curb, gutter, and sidewalk. (See ELD19224 for Phase 1A)	By 2035
Country Club Drive – Silva Valley Parkway to "Old Lincoln Highway"	Construct new 2-lane road north of existing Tong Rd from Silva Valley Pkwy to the "Old Lincoln Hwy". This project is the first half of the ultimate project to connect Silva Valley Pkwy to Bass Lake Rd and provide parallel capacity to US 50. CIP#71335	By 2020
Country Club Drive Extension – Bass Lake Road to Silver Dove Road	Construct 2-lane extension of Country Club Drive from Bass Lake Road to Silver Dove Road. Roadway includes 6-foot paved shoulders and new intersection at Bass Lake Road. (Curb, gutter, and sidewalk may be included.) CIP#GP124	By 2035
Country Club Drive Extension - Silver Dove to west end Bass Lake Hills	Construct new 2-lane extension of Country Club Drive from Silver Dove Road to the west end of Bass Lake Hills Specific Plan boundary for future connection to Silva Valley Parkway. Project includes 6-foot paved shoulders. (Curb, gutter, and sidewalk may be included). CIP#GP125	By 2035
El Dorado Hills Boulevard / Francisco Drive – Realignment	Realign existing El Dorado Hills Boulevard / Francisco Drive / Brittany Way intersection and approach roadways to result in a new 4-way intersection with extensions and signal installation. Northern portion of El Dorado Hills Boulevard (at this intersection) will become new minor traffic way, and current Francisco Drive between El Dorado Hills Boulevard and Green Valley Road will become new major traffic way. CIP#72332	By 2035
El Dorado Hills Boulevard Widening - Lassen Lane to Park Drive	Widen El Dorado Hills Boulevard from Lassen Lane to Park Drive from 4 to 5 lanes (divided) by adding a third southbound lane. Project includes curb, gutter, and sidewalk. CIP#GP183	By 2035
Green Valley Rd Widening - Francisco to Salmon Falls	Widen Green Valley Rd from Francisco Dr to Salmon Falls Rd to 4-lanes divided with curb, gutter, and sidewalk. CIP#GP178	By 2035
Green Valley Road	Widen: 4-lanes from Salmon Falls Rd. east to Deer Valley Rd.	By 2035

TABLE 12: CAPACITY–ENHANCING ROADWAY IMPROVEMENTS (ASSUMED COMPLETION BY 2035)

Project Name	Project Description	Estimated Completion
Green Valley Road Widening - County Line to Francisco Drive	Construct a second eastbound through lane from the commercial area near Sophia Parkway intersection to Francisco Drive with traffic signal installation at the Green Valley Road/Browns Ravine/Miller Road intersection. Also add a second westbound lane from Francisco Drive to the commercial area near the Sophia Parkway intersection.	Completed
Latrobe Road Widening – Golden Foothill to Investment	Widen Latrobe Rd from Golden Foothill Pkwy (south end) to Investment Blvd from 2-lanes undivided to 4-lanes divided with curb, gutter, and Class II bike lanes; modify signal at Investment Blvd. CIP#72350	By 2035
Latrobe Road	Widen: 6 lanes (divided with 4-foot shoulders) from White Rock Rd. to Carson Creek (Suncast Ln.).	By 2035
Latrobe Rd / White Rock Rd Connector (New Road)	New connector road from the El Dorado Hills Business Park to White Rock Rd west of Four Seasons/Stonebriar intersection; Phase 1 to perform route alignment study and prepare PSR; Phase 2 will include environmental, design and construction; may require coordination with Sacramento County, City of Folsom, Southeast Connector JPA and area developers. CIP#66116	By 2035
Saratoga Wy Ext - Phase 1	Construct new 2-lane arterial to extend Saratoga Wy from current terminus near Finders Wy to Sacramento County Line; includes median, 6-ft shoulders, right-turn pocket onto Finders Way, asphalt path, drainage system, environmental clearance and secure ROW for future 4-lane road from County Line to El Dorado Hills Blvd. CIP71324 (Phase 2 CIP#GP147 - See ELD19234 in MTP.)	By 2035
Saratoga Wy. (Phase 2)	Widen: 4 lanes from the Sacramento/El Dorado County line to El Dorado Hills Blvd. Includes: full curb, gutter, and sidewalk. (See ELD16010 for Phase 1)	By 2035
Silva Valley Pkwy Widening from Entrada	Widen Silva Valley Pkwy (2 to 4 lanes) from Entrada Dr to 1000 feet south of Oak Meadow Elem School; includes sidewalk, bike lanes and left-turn storage for school entrance.CIP#72370	By 2020
Silva Valley Pkwy / Golden Eagle Ln - Signalization	Signalize intersection at Silva Valley Pkwy and Golden Eagle Ln (Silva Valley Elementary School). CIP#GP182	By 2035

TABLE 12: CAPACITY–ENHANCING ROADWAY IMPROVEMENTS (ASSUMED COMPLETION BY 2035)

Project Name	Project Description	Estimated Completion
Silver Springs Parkway to Bass Lake Road	It is anticipated that Silver Springs Parkway will be built as a two-lane standard divided roadway with shoulders. It is planned to realign Bass Lake Road south of Green Valley Road through the proposed Silver Springs subdivision, which is west of the existing Bass Lake Road. The new road is named Silver Springs Parkway. That development is responsible for building Silver Springs Parkway through their development. There is a portion of the new alignment that falls to the south of the Silver Springs development that must also be built to connect the new road to the existing Bass Lake Road to the south.	By 2020
Silver Springs Parkway to Green Valley Road	Construct new Silver Springs Parkway through the Silver Springs Development from Bass Lake Road to Green Valley Road and install signal at Silver Springs Parkway and Green Valley Road intersection. Connect to realigned Bass Lake Road north of Bass Lake.	By 2020
Sophia Parkway	Widen: 4 lanes (divided) from Alexandria Rd. to Empire Rancho Rd. at the County Line.	By 2035
US 50 / Bass Lake Road (Phase 2)	Add Auxiliary Lane: WB on US 50 between Bass Lake Rd. and Cambridge Rd. interchanges. Includes: additional ramp, road widening (Phase 2) (See ELD19182 for Phase 1).	By 2035
US 50 / Cambridge Road (Phase 2)	Add Auxiliary Lane: on US 50 EB between Cambridge Rd. and Cameron Park Dr. interchanges and WB between Cameron Park Dr. and Bass Lake Rd. interchanges. Includes bridge widening to add two lanes and ramp widening (Phase 2) (See Eld19181 for Phase 1).	By 2035
US 50 Aux Lane WB - El Dorado Hills to Empire Ranch	Widen US 50 and add auxiliary lane to westbound US 50 connecting the El Dorado Hills Blvd/Latrobe Rd Interchange to the future Empire Ranch Rd Interchange located in the City of Folsom; (City of Folsom will construct the EB aux lane.) Timing of construction to be concurrent with or after the El Dorado Hills Blvd Interchange (ELD15630/CIP71323) or Empire Ranch Interchange. CEQA/NEPA cleared through the Empire Ranch Interchange environmental document. CIP#53115	By 2035
US 50 50 Auxiliary Lane Eastbound – Cambridge to Ponderosa	Construct eastbound auxiliary lane on US 50 between Cambride Rd and Ponderosa Rd interchanges. CIP GP150	By 2035
US 50 Bus / Carpool Lanes	Bus/Carpool Lanes – Phase 3: Us 50-Ponderosa Road to Greenstone Road.	By 2035

TABLE 12: CAPACITY–ENHANCING ROADWAY IMPROVEMENTS (ASSUMED COMPLETION BY 2035)

Project Name	Project Description	Estimated Completion
US 50 HOV Lanes – Phase 1	Phase 1 (El Dorado Hills to Bass Lake Grade) - Add HOV lanes in median of US 50 between El Dorado Hills Blvd/Latrobe Rd and Bass Lake Rd interchanges (PM 0.5 to PM 4.2 eastbound and PM 0.9 to PM 2.9 westbound); includes extension of EB truck climbing lane from Latrobe Rd to base of Bass Lake Grade, median widenings of Clarksville Rd and Bass Lake Rd undercrossings, and replacement of EDH Blvd undercrossings including EB off-ramp. (See ELD19287 for Phase 2A, ELD19290 for Phase 2B and ELD19289 for future unfunded Phase 3 in the MTP). Emission Benefits in kg/day: ROG 27, NOx: 28, PM10 15, CO 303. CIP#53110	Completed
US 50 HOV Lanes – Phase 2A	Phase 2A (Bass Lake Rd to Cameron Park Dr) - Add HOV lanes in median of US 50 between Bass Lake Rd and Cameron Park Dr Interchanges. PA&ED completed by Caltrans. Caltrans advancing project design through Cooperative Agreement with the County. Intergovernmental Agreement between County and Shingle Springs Band of Miwok Indians for funding (coded as Local Agency Funds). (Emission Benefits in kg/day: 19 ROG, 20 NOx, 12 PM10.) (See ELD19211/CIP53113 for Phase 1, ELD19290/CIP53122 for Phase 2B and ELD19289/CIP#53116 for future unfunded Phase 3 in the MTP). CIP#53113	Completed
US 50 HOV Lanes – Phase 2B	Phase 2B (Cameron Park Dr to Ponderosa Rd.) - Add HOV lanes in median of US 50 between Cameron Park Dr. and Ponderosa Rd. interchanges. PA&ED completed by Caltrans. Caltrans advancing project design through Cooperative Agreement with the County. Intergovernmental Agreement between County and Shingle Springs Band of Miwok Indians for funding (coded as Local Agency Funds). (See ELD19211/CIP53113 for Phase 1, ELD19290/CIP53122 for Phase 2B and ELD19289/CIP53116 for future unfunded Phase 3 in the MTP). CIP53113	By 2035
US 50 Mainline Widening at El Dorado Hills	Construct new westbound aux lane within median of US 50 between Silva Valley Pkwy and Empire Ranch Rd future new interchanges; requires coordination with Silva Valley I/C (ELD15610/CIP#71328), El Dorado Hills I/C (ELD15630/CIP71323) and Empire Ranch I/C (City of Folsom project). CIP#53120	By 2035
US 50 / Bass Lake Rd Interchange - Phase 1	Interchange Improvements: this phase includes detailed study to determine complete improvements needed; Phase 1 may include ramp widening, road widening, signals, and WB auxiliary lane between Bass Lake and Silva Valley interchanges; Phase 1 assumes bridge replacement. (See ELD19217 for Phase 2). CIP#71330	By 2035

TABLE 12: CAPACITY–ENHANCING ROADWAY IMPROVEMENTS (ASSUMED COMPLETION BY 2035)

Project Name	Project Description	Estimated Completion
US 50 / Cambridge Rd. Interchange – Phase 1	Interchange Improvements: this phase includes widening existing EB and WB on-/off-ramps; addition of new WB on-ramp; reconstruction of local intersections; and installation of traffic signals at EB and WB ramp terminal intersections; preliminary engineering for Phase 2 to be performed under Phase 1. (See ELD19218 for Phase 2) CIP#71332	By 2035
US 50 / Cameron Park Dr. Interchange Improvements	Interchange Improvements: this project includes detailed study to identify capacity improvement alternatives and selection of preferred alternative; assumes reconstruction of US 50 bridges to widen Cameron Park Dr. to 8 lanes under the overcrossing; road and ramp widening. CIP72361	By 2020
US 50 / El Dorado Hills Blvd Interchange Eastbound Ramps	Reconstruct eastbound diagonal on-ramp and eastbound loop off-ramp for the ultimate configuration; add a lane to northbound El Dorado Hills Blvd under the overpass (eliminates merge lane and improves traffic flow from the eastbound loop off-ramp); eastbound diagonal on-ramp will be metered and have an HOV bypass. Project split from ELD15630 (CIP#71323).	By 2020
US 50 / El Dorado Rd Interchange - Phase 1	Interchange Improvements: includes signalization and widening of existing ramps. (See ELD19272 for Phase 2). CIP#71347	Completed
US 50 / El Dorado Rd Interchange - Phase 2	Interchange Improvements: this phase involves construction of left and right turn lanes and additional through traffic lanes in all approaches to the interchange. (See ELD19178/CIP#71347 for Phase 1). CIP#71376	Ongoing
US 50 / El Dorado Hills Blvd Interchange – Final Phase	Interchange Improvements: this final phase constructs new WB off-ramp undercrossing, improves WB on-/off-ramps and widens El Dorado Hills Blvd. (Coordinates with ELD19215/CIP#53120, ELD19273/CIP#53115, ELD19173/CIP71340, and ELD19345). CIP#71323	Ongoing
US 50 / El Dorado Hills Blvd Pedestrian Overcrossing	Construct ped/bike overcrossing over US 50 just east of El Dorado Hills Blvd. Interchange; includes a Class 3 mixed use path; construction and ROW acquisition for 10-ft wide sidewalk and adjacent retaining walls, barriers, railings, and landscape replacement included with CIP71323 (see ELD15630). CIP71340.	By 2035
US 50 / Silva Valley Pkwy Interchange - Phase 1	New Interchange: Phase 1 includes US 50 on-/off-ramps, overcrossing, and US 50 aux lanes. (See ELD19291/CIP#71345 for Phase 2). CIP#71328	Ongoing
US 50 / Silva Valley Pkwy Interchange - Phase 2 (Connector Segment)	Final phase of new interchange: construction of eastbound diagonal and westbound loop on-ramps to US 50. (See ELD15610/CIP#71328 for Phases 1). CIP#71345	By 2035

TABLE 12: CAPACITY–ENHANCING ROADWAY IMPROVEMENTS (ASSUMED COMPLETION BY 2035)

Project Name	Project Description	Estimated Completion
White Rock Rd Widening - Manchester to County Line (Connector Segment)	Widen White Rock Rd from 2 to 4 lanes, divided, from Manchester Dr east to Sacramento County Line. CIP#GP137	By 2035
White Rock Rd Widening – Monte Verde to US 50 / Silva Valley (Connector Segment)	Widen White Rock Rd from 2-lanes undivided to 4 lanes divided, from Monte Verde Dr east to new future US 50/Silva Valley Pkwy Interchange (ELD15610/CIP71328); includes curb, gutter, sidewalk, and Class II bike lanes. ROW costs include acquisition for ultimate 6-lane facility (see CIP#GP152/ELD19235 in MTP). CIP#72374	By 2035
White Rock Rd Widening – Latrobe to Monte Verde (Connector Segment)	Widen White Rock Rd (2 lanes undivided to 4 lanes divided) from Post St to the culvert east of Monte Verde Dr; install new traffic signal at White Rock Rd/Windfield Wy; includes curb, gutter, sidewalk, and Class II bike lanes. CIP#72372	By 2020
White Rock Rd (Connector Segment)	Widen: 6 lanes (divided) from Latrobe Rd. to US 50 / Silva Valley Pkwy. Interchange.	By 2035
White Rock Rd / Post St - Signalization (Connector Segment)	Signalize intersection at White Rock Rd and Post St in El Dorado Hills. CIP#73310	By 2035

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Figure 9: Peak Hour Traffic Volumes and Lane Configurations – Cumulative No Project Conditions [Revised Figures Pending]

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Figure 10: Peak Hour Traffic Volumes and Lane Configurations – Cumulative Plus Project Conditions [Revised Figures Pending]

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6.2 PEAK HOUR VEHICLE LEVEL OF SERVICE

6.2.1 INTERSECTIONS

Analysis results, which are presented in Table 13, indicate that many of the study intersections, which are stop controlled, will operate unacceptably with increased traffic from build-out of the proposed project added to cumulative background traffic. Traffic generated by the project result in potential impacts at the following locations:

- Bass Lake Road/Serrano Parkway (Intersection 1) – This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours.

- Bass Lake Road/Hollow Oak Drive (Intersection 2) – This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours.

- Bass Lake Road/Old Bass Lake Road (Intersection 3) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours.

- Bass Lake Road/Country Club Drive (Intersection 4) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours.

- Bass Lake Road/US 50 westbound ramps (Intersection 5) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection will operate unacceptably at LOS E in the AM peak hour and LOF F in the PM peak hour without the project. According to established significance criteria, the project is projected to "significantly

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worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours.

- Bass Lake Road/US 50 eastbound ramps (Intersection 6) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection will operate unacceptably at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours.

- Marble Valley Parkway/Marble Mountain Road (Intersection 7) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection will operate acceptably at LOS D without the project during the AM and PM peak hours. The project results in unacceptable (LOS F) conditions during the AM and PM peak hours.

- Marble Valley Parkway/Marble Ridge Road (Intersection 8) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection will operate acceptably at LOS C during the AM peak hour and unacceptably at LOS E without the project during the PM peak hour. The project will also result in unacceptable (LOS F) conditions during the AM peak hour and according to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the PM peak hour.

- Cambridge Road/Country Club Drive (Intersection 9) – This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours.

- Cambridge Road/Knollwood Drive (Intersection 10) – This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours.

- Cambridge Road/US 50 westbound ramps (Intersection 11) – This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours.

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- Cambridge Road/Flying C Road/Crazy Horse Road (Intersection 13) – This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours.

- El Dorado Hills Boulevard/Park Drive/Saratoga Way (Intersection 19) – This intersection will operate acceptably at LOS D during the AM peak hour and unacceptably at LOS F without the project during the PM peak hour. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the PM peak hour.

- Latrobe Road/Town Center Drive (Intersection 21) – This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours.

TABLE 13: INTERSECTION LOS AND DELAY – CUMULATIVE CONDITIONS

Intersection	LOS Target	Control	Cumulative Conditions (LOS / Delay)		Cumulative Plus Project (LOS / Delay)	
			AM	PM	AM	PM
1. Bass Lake Road/Serrano Parkway	E	AWSC	**F / 112**	**F / 84**	***F / 69***	***F / 70***
2. Bass Lake Road/Hollow Oak Drive	E	SSSC	**F / >180**	**F / >120**	***F / >180***	***F / >180***
3. Bass Lake Road/Old Bass Lake Road	D	SSSC	**F / >180**	**F / >180**	***F / >180***	***F / >180***
4. Bass Lake Road/Country Club Drive	D	SSSC	**F / >180**	**F / >180**	***F / >180***	***F / >180***
5. Bass Lake Road/US WB 50 Ramps	D	Signal	**E / 58**	**F / 102**	***F / 156***	***F / >180***
6. Bass Lake Road/US EB 50 Ramps	D	Signal	**F / 107**	**F / 104**	***F / 148***	***F / >180***
7. Marble Valley Road/ Marble Mountain Road	D	SSSC	D / 30	D / 31	***F / >180***	***F / >180***
8. Marble Valley Road/ Marble Ridge Road	D	SSSC	C / 16	**E / 48**	***F / >180***	***F / >180***

TABLE 13: INTERSECTION LOS AND DELAY – CUMULATIVE CONDITIONS

Intersection	LOS Target	Control	Cumulative Conditions (LOS / Delay)		Cumulative Plus Project (LOS / Delay)	
			AM	PM	AM	PM
9. Cambridge Road/Country Club Drive	E	AWSC	**F / >180**	**F / >180**	***F / >180***	***F / >180***
10. Cambridge Road/Knollwood Drive	E	SSSC	**F / >180**	**F / >180**	***F / >180***	***F / >180***
11. Cambridge Road/Merrychase Drive/US 50 WB Ramps	E	Signal	**F / 86**	**F / 112**	***F / 135***	***F / >180***
12. Cambridge Road/US 50 EB Ramps	E	Signal	A / 9	B / 14	B / 18	D / 36
13. Cambridge Road/Flying C Road/Crazy Horse Road	E	SSSC	**F / >180**	**F / >180**	***F / >180***	***F / >180***
14. Flying C Road/Deer Creek Road	E	SSSC	B / 11	B / 11	C / 21	C / 25
15. El Dorado Hills Boulevard/US 50 WB Ramps	E	Signal	D / 45	D / 39	D / 47	D / 43
16. Latrobe Road/US 50 EB Ramps	E	Signal	B / 19	B / 13	C / 22	C / 33
17. Silva Valley Pkwy/US 50 WB Ramps	E	Signal	D / 43	B / 18	D / 52	C / 21
18. Silva Valley Pkwy/US 50 EB Ramps	E	Signal	A / 9	A / 9	A / 9	A / 10
19. El Dorado Hills Blvd/Park Dr/Saratoga Way	E	Signal	D / 47	**F / 143**	D / 45	***F / 115***
20. Park Drive/El Dorado Hills Boulevard	E	Signal	Does Not Exist			
21. Latrobe Rd/Town Center Dr	E	Signal	**F / 87**	**F / 152**	***F / 86***	***F / 166***
22. Latrobe Rd/White Rock Dr	E	Signal	D / 47	E / 61	D / 42	E / 78

TABLE 13: INTERSECTION LOS AND DELAY – CUMULATIVE CONDITIONS

Intersection	LOS Target	Control	Cumulative Conditions (LOS / Delay)		Cumulative Plus Project (LOS / Delay)	
			AM	PM	AM	PM

Note: SSSC = side-street stop-control, AWSC = all-way stop control

Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.

The average delay is measured in seconds per vehicle. For signalized and AWSC intersections, the delay shown is the average control delay for the overall intersection. For SSSC intersections, the LOS and control delay for the worst movement is shown.

Intersection LOS and delay is calculated based on the procedures and methodology contained in the *HCM* (TRB, 2000). Intersections 1-14 and 22 are analyzed in Synchro 7. Intersections 15-21 are analyzed in SimTraffic.

Source: Fehr & Peers, 2014

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6.2.2 ROADWAY SEGMENTS

Analysis results, which are presented in Table 14, indicate that all study roadway segments except for one will operate acceptably under cumulative conditions, due primarily to the capacity increasing roadway project included in the County's CIP, which are documented in Table 12. Without the project, the segment of Cameron Park Drive between Alhambra Drive and Oxford Road would operate unacceptable (LOS F) conditions during the PM peak hour. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the roadway segment during the PM peak hour.

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TABLE 14: ROADWAY SEGMENT PEAK HOUR LEVEL OF SERVICE – CUMULATIVE CONDITIONS

Roadway	Segment	Facility Type	Cumulative Volume / Volume – Capacity (V/C) Ratio / LOS		Cumulative + Project Volume / Volume – Capacity (V/C) Ratio / LOS	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Bass Lake Rd	Green Valley Rd to Bridlewood Dr	2 lane arterial	690 / 0.42 / C[1]	730 / 0.44 / C[1]	670 / 0.41 / C[1]	730 / 0.44 / C[1]
	Bridlewood Dr to Serrano Pkwy	4 lane divided arterial	1,120 / 0.34 / C[1]	1,210 / 0.37 / C[1]	1,180 / 0.36 / C[1]	1,260 / 0.38 / C[1]
	Serrano Pkwy to Hollow Oak Dr	4 lane divided arterial	1,270 / 0.39 / C[1]	1,320 / 0.40 / C[1]	1,220 / 0.37 / C[1]	1,260 / 0.38 / C[1]
	Hollow Oak Dr to Country Club Dr	4 lane divided arterial	2,080 / 0.63 / D	2,190 / 0.67 / D	2,000 / 0.61 / D	2,150 / 0.65 / D
	Country Club Dr to US 50	4 lane divided arterial	2,000 / 0.61 / D	2,410 / 0.73 / D	2,420 / 0.74 / D	2,370 / 0.72 / D
Cambridge Rd	Green Valley Rd to Oxford Rd	2 lane arterial	570 / 0.35 / C[1]	700 / 0.42 / C[1]	600 / 0.36 / C[1]	730 / 0.44 / C[1]
	Oxford Rd to Knollwood Dr[2]	2 lane arterial	860 / 0.52 / D	1,070 / 0.65 / D	900 / 0.55 / D	1,110 / 0.67 / D
	Knollwood Dr to Country Club Dr[2]	2 lane arterial	940 / 0.57 / D	1,140 / 0.69 / D	1,000 / 0.61 / D	1,190 / 0.72 / D
	Country Club Dr to US 50	4 lane divided arterial	1,790 / 0.54 / C[1]	2,010 / 0.61 / D	2,010 / 0.61 / D	2,410 / 0.73 / D
Cameron Park Dr	Green Valley Rd to Alhambra Dr	2 lane arterial	860 / 0.52 / D	1,030 / 0.62 / D	850 / 0.52 / C[1]	1,020 / 0.62 / D
	Alhambra Dr to Oxford Rd	2 lane arterial	1,500 / 0.91 / D	**1,750 / 1.06 / F**	1,510 / 0.92 / D	***1,770 / 1.07 / F***
	Oxford Rd to Hacienda Dr	4 lane divided arterial	1,620 / 0.49 / C[1]	2,240 / 0.68 / D	1,620 / 0.49 / C[1]	2,270 / 0.69 / D

TABLE 14: ROADWAY SEGMENT PEAK HOUR LEVEL OF SERVICE – CUMULATIVE CONDITIONS

Roadway	Segment	Facility Type	Cumulative Volume / Volume – Capacity (V/C) Ratio / LOS		Cumulative + Project Volume / Volume – Capacity (V/C) Ratio / LOS	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
	Hacienda Dr to US 50	4 lane undivided arterial	1,870 / 0.60 / D	2,700 / 0.86 / D	1,890 / 0.60 / D	2,730 / 0.87 / D
Country Club Dr	Bass Lake Rd to Merrychase Dr	2 lane arterial	860 / 0.52 / D	830 / 0.50 / C[1]	820 / 0.50 / C[1]	750 / 0.45 / C[1]
	Merrychase Dr to Knollwood Dr	2 lane arterial	770 / 0.47 / C[1]	800 / 0.48 / C[1]	730 / 0.44 / C[1]	720 / 0.44 / C[1]
	Knollwood Dr to Cambridge Rd	2 lane arterial	550 / 0.33 / C[1]	710 / 0.43 / C[1]	560 / 0.34 / C[1]	650 / 0.39 / C[1]
	Cambridge Rd to Royal Dr	2 lane arterial	290 / 0.18 / C[1]	310 / 0.19 / C[1]	290 / 0.18 / C[1]	310 / 0.19 / C[1]
	Royal Dr to Cameron Park Dr	2 lane arterial	230 / 0.14 / C[1]	370 / 0.22 / C[1]	230 / 0.14 / C[1]	370 / 0.22 / C[1]
Durock	US 50 to Business Dr[3]	2 lane arterial	560 / 0.34 / C[1]	770 / 0.47 / C[1]	590 / 0.36 / C[1]	810 / 0.49 / C[1]
	Business Dr to S. Shingle Rd	2 lane arterial	500 / 0.30 / C[1]	680 / 0.41 / C[1]	510 / 0.31 / C[1]	720 / 0.44 / C[1]

Notes: [1]LOS at this location is C or better.
[2]Cambridge Road between Country Club Drive and Oxford Road is allowed to operate at LOS F (maximum V/C/ ratio of 1.07) until 2018 per County standard
[3]Durock Road/Cameron Park Drive between Coach Lane and Robin Lane is allowed to operate at LOS F (maximum V/C ratio of 1.11) until 2018 per County standard.
Volume-to-Capacity ratio and LOS is based on the HCM 2010 peak hour level of service thresholds.
Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.

Source: Fehr & Peers, 2014

6.2.3 FREEWAY FACILITIES

Analysis results, which are presented in Table 15, indicate that most of the study freeway facilities will operate at LOS D or better under cumulative conditions. One weave section will operate at LOS E. The capacity increasing projects from the County's CIP, which are documented in Table 12, include many projects that will add capacity of US 50, increase east/west parallel capacity, and add new interchange connections to US 50 that will provide alternatives to the existing US 50/El Dorado Hills Boulevard interchange. The following lists some of the more significant transportation improvements in the US 50 corridor:

Interchange Projects

- US 50/El Dorado Hills Boulevard Interchange Improvements (final improvement phases)
- US 50/Silva Valley Parkway Interchange (new connection to US 50)
- US 50/Empire Ranch Road Interchange (new connection to US 50)
- US 50/Bass Lake Road Interchange Upgrade
- US 50/Cambridge Road Interchange Upgrade

Mainline Projects

- Westbound US 50 interchange-to-interchange auxiliary lane (Bass Lake Road to Silva Valley Parkway)
- Westbound US 50 auxiliary lane (Silva Valley Parkway to Empire Ranch Road)
- Westbound US 50 interchange-to-interchange auxiliary lane (Silva Valley Parkway to El Dorado Hills Boulevard)
- Eastbound US 50 interchange-to-interchange auxiliary lane (El Dorado Hills Boulevard to Silva Valley Parkway)
- Westbound US 50 interchange-to-interchange auxiliary lane (Cambridge Drive to Bass Lake Road)
- Eastbound US 50 interchange-to-interchange auxiliary lane (Bass Lake Road to Cambridge Drive)

Arterial Roadway Projects

- Country Club Drive Extension from Bass Lake Road to Silva Valley Parkway
- Saratoga Way Extension from El Dorado Hills Boulevard to Iron Point Road
- Extension of Empire Ranch Road from US 50 to White Rock Road
- Latrobe Road Connector (new roadway between Latrobe Road and White Rock Road)

Figure 11 compares existing conditions on US 50 to US 50 with the interchange and mainline projects listed above. Figure 12 shows peak hour US 50 mainline and ramp volumes under cumulative conditions. About 11 percent of project trips will have an origin/destination in Rancho Cordova and other areas to the west, including unincorporated Sacramento County and the City of Sacramento.

The westbound weaving sections between Silva Valley Parkway and El Dorado Hills Boulevard and between El Dorado Hills Boulevard and Empire Ranch Road will operate at LOS E during the AM peak hour without or with the proposed project, based on the HCM weave analysis method. However, analysis of

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the weaving section based on the Leisch method (preferred by Caltrans District 3) indicates that these weave sections would operate at LOS C during the same period. The westbound weaving sections between El Dorado Hills Boulevard and Empire Ranch Road will operate at LOS F during the AM peak hour with the proposed project, based on the HCM weave analysis method.

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Figure 11: Programmed Freeway Improvements [Revised Figures Pending]

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Figure 12: Freeway Mainline and Ramp Peak Hour Traffic Volumes – Cumulative Conditions[Revised Figures Pending]

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TABLE 15: PEAK HOUR LEVEL OF SERVICE – CUMULATIVE PLUS PROJECT CONDITIONS (FREEWAY)

Freeway	Segment	Facility Type	Cumulative Density[1] / LOS		Cumulative + Project Density[1] / LOS		Notes
			AM	PM	AM	PM	
US 50 EB	Latrobe Rd off-ramp	Diverge	27 / C	35 / D	28 / C	34 / D	
	El Dorado Hills Blvd off-ramp	Diverge	20 / C	31 / D	21 / C	31 / D	
	El Dorado Hills Blvd on-ramp to Silva Valley Pkwy off-ramp	Weave (HCM)	21 / C		23 / C	38 / E	
		Weave (Leisch)	- / A	- / C	- / B	- / D	
		Basic		20 / C			Outside the realm of weave of weaving section analysis due to combination of weaving volume and segment length.
	Silva Valley Pkwy loop on-ramp	Merge	17 / B	25 / C	18 / B	26 / C	
	Silva Valley Pkwy slip on-ramp	Merge	16 / B	25 / C	17 / B	26 / C	
	Silva Valley Pkwy on-ramp to Bass Lake Rd off-ramp	Basic	20 / C	29 / D	21 / C	30 / D	
	Bass Lake Rd off-ramp	Diverge	24 / C	33 / D	25 / C	34 / D	
	Bass Lake Rd on-ramp to Cambridge Rd off-ramp	Weave (HCM)	32 / D		31 / D		
		Weave (Leisch)					

TABLE 15: PEAK HOUR LEVEL OF SERVICE – CUMULATIVE PLUS PROJECT CONDITIONS (FREEWAY)

Freeway	Segment	Facility Type	Cumulative Density[1] / LOS		Cumulative + Project Density[1] / LOS		Notes
			AM	PM	AM	PM	
		Basic	B / 17	23 / C	B / 16	23 / C	Outside the realm of weave of weaving section analysis due to combination of weaving volume and segment length.
	Cambridge Rd on-ramp to Cameron Park Dr off-ramp	Basic	20 / C	24 / C	21 / C	25 / C	Outside the realm of weave of weaving section analysis due to combination of weaving volume and segment length.
		Weave (HCM)			42 / E		
	Cameron Park Dr on-ramp to Cambridge Rd off-ramp	Basic	20 / C	23 / C	21 / C	25 / C	Outside the realm of weave of weaving section analysis due to combination of weaving volume and segment length..
US 50 WB	Cambridge Rd on-ramp to Bass Lake Rd off-ramp	Basic	19 / C	20 / C	19 / C	20 / C	Outside the realm of weave of weaving section analysis due to combination of weaving volume and segment length.
	Bass Lake Rd on-ramp to Silva Valley Pkwy off-ramp	Basic	24 / C	22 / C	26 / C	23 / C	Outside the realm of weave of weaving section analysis due to combination of weaving volume and segment length.
	Silva Valley Pkwy Loop on-ramp	Merge	14 / B	13 / B	15 / B	14 / B	

TABLE 15: PEAK HOUR LEVEL OF SERVICE – CUMULATIVE PLUS PROJECT CONDITIONS (FREEWAY)

Freeway	Segment	Facility Type	Cumulative Density[1] / LOS		Cumulative + Project Density[1] / LOS		Notes
			AM	PM	AM	PM	
	Silva Valley Slip on-ramp to El Dorado Hills Blvd off-ramp	Weave (HCM)	36 / E	26 / C	39 / E	27 / C	
		Weave (Leisch)	- / C		- / C		
		Basic		15 / B		16 / B	Outside the realm of weave of weaving section analysis due to combination of weaving volume and segment length.
	El Dorado Hills on-ramp to Empire Ranch off-ramp	Weave (HCM)	44 / E	34 / D	***- / F***	34 / D	
		Weave (Leisch)	- / D	- / C	- / D	- / C	

Notes: 1 Density reported as passenger cars per mile per lane. Density is not reported for LOS F operations or weave segments. Weave segment's operations are based on the HCM 2010 and Leisch Method. If the weave segment is outside the realm of weaving, it is analyzed as a basic segment.

Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.

Source: Fehr & Peers, 2014

6.3 PEDESTRIAN AND BICYCLE CIRCULATION

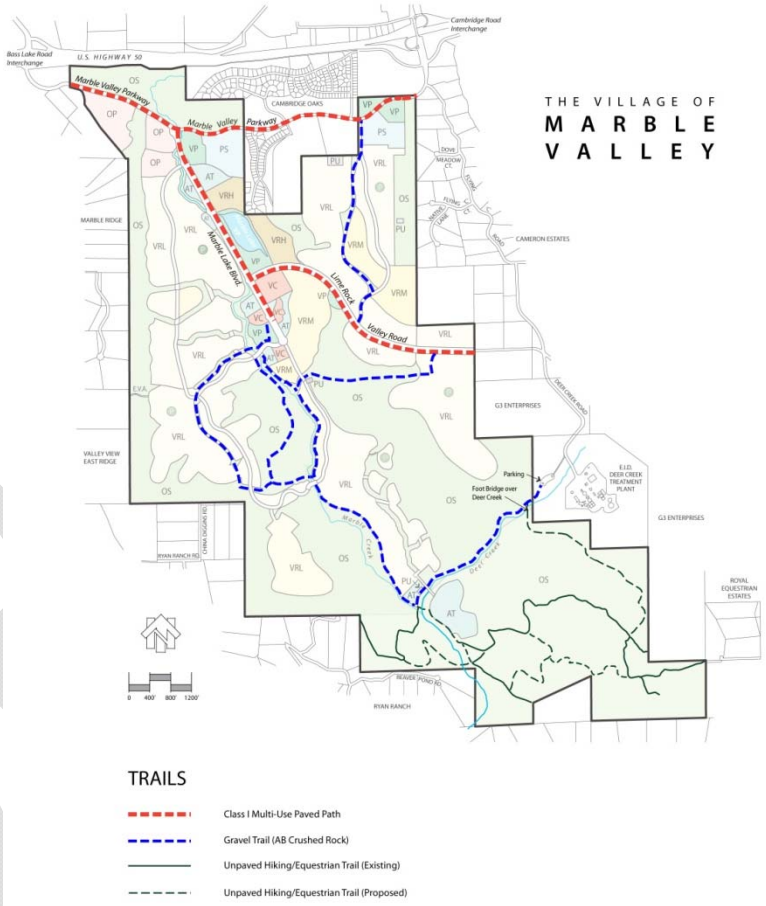
Bicycle network improvements are planned within the study area. Figure 5 identifies planned bikeways presented in the *El Dorado Bicycle Transportation Plan, 2010 Update* and the *Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for 2035*. The following are planned improvement projects:

- El Dorado Hills Class I bike path - SMUD Corridor: Design and construct a Class I bike path between El Dorado Hills Boulevard and Silva Valley Parkway within the powerline easement operated by the Sacramento Municipal Utility District (SMUD). A portion of this project has been constructed between Silva Valley and New York Creek,
- Latrobe Road Class II bike lanes from Investment Boulevard to Deer Creek/SPTC
- Old Bass Lake Road – El Dorado Hills Boulevard to Bass Lake Road Connection, Phase 1: Use existing roadway as Class I path from Tong Road to Old Bass Lake Road
- Saratoga Way Extension Class II bike lanes included in extension of Saratoga Way from Finders Way to County Line. (Alternatively construct a Class I bike path prior to construction of extension of Saratoga Way to Iron Point Road) An informal trail exists connecting these roadways,
- Bass Lake Road Class II bike lanes from Green Valley Road to US 50
- Bike path parallel to US 50 on the north side – El Dorado Hills Boulevard to Bass Lake Road Connection, Phase 2: Connect Silva Valley Road to El Dorado Hills Village Center Shopping Center. The Central El Dorado Hills Specific Plan will implement a portion of this bike path.
- El Dorado Hills Boulevard bike lanes, Phase 1: Saratoga Way to Governor Drive/St. Andrews
- El Dorado Hills Boulevard bike path, Phase 2: Utilizing an existing golf cart undercrossing of Serrano Parkway, extend the bike path from the current terminus at Serrano Parkway to Raley's Center. The Central El Dorado Hills Specific Plan will implement this improvement.
- El Dorado Hills Boulevard to Bass Lake Connection, Phase 1; Class III bike route on Tong Road, Class III bike route on Old Bass Lake Road.
- Green Valley Road Class II bike lanes from Francisco Drive to Pleasant Grove Middle School
- Harvard Way bike path from Clermont Road to El Dorado Hills Boulevard
- Silva Valley Parkway bike lanes from the new connection with White Rock Road to Green Valley Road
- SPTC/El Dorado Trail Class I bike path from Latrobe Road to County Line

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- Class I bike path and US 50 Undercrossing or overcrossing between the El Dorado Hills Town Center and El Dorado Hills Village Center (not fully funded or listed in MTP/SCS). As outlined below, the Central El Dorado Hills Specific Plan proposes to locate the overcrossing of US 50 adjacent to the Village Park with, connecting the planned bike path north of US 50 to the El Dorado Hills Town Center.
- Class I bike path within the SMUD power line easement between El Dorado Hills Boulevard and Sophia Parkway (not fully funded or listed in the MTP/SCS)

The project proposes a Class I multi-use path on Marble Valley Parkway, Marble Lake Boulevard, and Lime Rock Valley Road. In addition, the project proposes a network of gravel trails and unpaved hiking/equestrian trails integrating with existing trails. The image to the right shows proposed bicycle facilities and trails.



6.4 TRANSIT

As described above, the project will provide bicycle and pedestrian connections to existing and planned bicycle and pedestrian facilities and will provide a 100 to 120 space park-n-ride lot. To accommodate possible future public transit service, transit stops and bus shelters may be provided within the on-site portions of Marble Valley Parkway and Marble Lake Boulevard near the intersection of Lime Rock Valley Road. Based on ridership data presented in the *El Dorado Hills Community Transit Needs Assessment and US 50 Corridor Transit Operations Plan, Final Report,* 41,760 annual commute trips are made by El Dorado Hills residents using El Dorado Transit Commuter Service. Residents of El Dorado Hills account for about 72 percent of boardings at the El Dorado Hills Park-n-Ride lot, which includes riders that park in the lot and riders that use other means to access the service (i.e., walk, bike, and drop-off).

Based on this information, about one annual commute trip is generated per El Dorado Hills resident, assuming a population of 42,100 (2010 Census) in El Dorado Hills. Therefore, the project's 3,236 dwelling units could result in demand of about 8,400 annual commute trips (assuming a household population of 2.6 persons), or about 32 commute trips per weekday.

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7.0 IMPACT STATEMENTS AND MITIGATION MEASURES

Project impacts were determined by comparing conditions with the project to conditions without the project in accordance with the established significance criteria presented in Section 4.2.

7.1 EXISTING PLUS PROJECT

Analysis results, which are presented in Table 16, indicate that the addition of the project would exacerbate unacceptable operations at three intersection and result in unacceptable operation at nine intersections. The following discusses these impacts and associated mitigation:

7.1.1 INTERSECTIONS

Impacts

Impact 1 - Bass Lake Road/Serrano Parkway (Intersection 1) – This intersection operates acceptably at LOS D and B during the AM and PM peak hours, respectively, without the project. The project results in unacceptable (LOS F) conditions during the AM peak hour. **This is a significant impact**.

Impact 2 - Bass Lake Road/Country Club Drive (Intersection 4) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection operates unacceptably at LOS F without the project during the AM peak hour and acceptably at LOS C during the PM peak hour. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM peak hour operations. The project would also result in unacceptable (LOS F) conditions during the PM peak hour. **This is a significant impact**.

Impact 3 - Bass Lake Road/US 50 westbound ramps (Intersection 5) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection operates acceptably at LOS B and LOS C during the AM and PM peak hours, respectively, without the project. The project results in unacceptable (LOS F) conditions during the AM and PM peak hours. Poor operation at this intersection will result in vehicle queuing on the westbound off ramp during the PM peak hour that could cause vehicles to spill back to the US 50 mainline, impacting mainline operations. **This is a significant impact**.

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Impact 4 - Bass Lake Road/US 50 eastbound ramps (Intersection 6) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection operates acceptably at LOS C during the AM peak hour and unacceptably at LOS F during the PM peak hour without the project. The project would also result in unacceptable (LOS F) conditions during the AM peak hour, and according to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the PM peak hour. Poor operation at this intersection will result in vehicle queuing on the eastbound off ramp during the PM peak hour that could cause vehicles to spill back to the US 50 mainline, impacting mainline operations. **This is a significant impact**.

Impact 5 - Marble Valley Parkway/Marble Mountain Road (Intersection 7) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection operates acceptably at LOS A without the project during the AM and PM peak hours. The project results in unacceptable (LOS F) conditions during the AM and PM peak hours. **This is a significant impact**.

Impact 6 - Marble Valley Parkway/Marble Ridge Road (Intersection 8) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection operates acceptably at LOS A without the project during the AM and PM peak hours. The project results in unacceptable (LOS F) conditions during the AM and PM peak hours. **This is a significant impact**.

Impact 7 - Cambridge Road/Country Club Drive (Intersection 9) – This intersection operates acceptably at LOS E and C during the AM and PM peak hours, respectively, without the project. The project results in unacceptable (LOS F) conditions during the AM peak hour. **This is a significant impact**.

Impact 8 - Cambridge Road/Knollwood Drive (Intersection 10) – This intersection operates unacceptably at LOS F during the AM peak hour and acceptably at LOS E during the PM peak hour without the project. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM peak hour. The project would also result in unacceptable (LOS F) conditions during the PM peak hour. **This is a significant impact**.

Impact 9 - Cambridge Road/US 50 eastbound ramps (Intersection 12) – This intersection operates acceptably at LOS B and E during the AM and PM peak hours, respectively, without the project. The project results in unacceptable (LOS F) conditions during the AM and PM peak hours. **This is a significant impact**.

Impact 10 - Cambridge Road/Flying C Road/Crazy Horse Road (Intersection 13) – This intersection operates acceptably at LOS B during the AM and PM peak hours without the project.

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The project results in unacceptable (LOS F) conditions during the AM peak hour. **This is a significant impact.**

Impact 11 - El Dorado Hills Boulevard/Park Drive/Saratoga Way (Intersection 19) – This intersection operates acceptably at LOS D and C during the AM and PM peak hours, respectively, without the project. The project results in unacceptable (LOS F) conditions during the AM peak hour. **This is a significant impact.**

Impact 12 - Latrobe Road/Town Center Drive (Intersection 21) – This intersection operates acceptably at LOS C and E during the AM and PM peak hours, respectively, without the project. The project results in unacceptable (LOS F) conditions during the PM peak hour. **This is a significant impact.**

Mitigation

Mitigation 1 - Bass Lake Road/Serrano Parkway (Intersection 1) – A traffic signal has been installed at the Bass Lake Road/Serrano Parkway intersection as part of the realignment of Sienna Ridge Road, since existing conditions data was collected. Traffic signal control will result in acceptable LOS B operation during the AM and PM peak hours. With this improvement, this impact would be **less than significant.**

Mitigation 2 - Bass Lake Road/Country Club Drive (Intersection 4) – This intersection will be part of the planned widening of Bass Lake Road and the reconstruction of the US 50/Bass Lake Road interchange, which are included in the County's 10-year CIP. Implementation of the US 50/Bass Lake Road interchange reconstruction project, which has not been designed, would result in acceptable LOS C and B operation during the AM and PM peak hours, respectively, at the Bass Lake Road/Country Club Drive intersection with build-out of the proposed project. The following improvements would provide acceptable operation:

- Relocate Country Club Drive north of its current intersection with Bass Lake Road to improve intersection spacing with the interchange ramp intersections.
- Reconstruct US 50/Bass Lake Road interchange to provide a Type L-9 Configuration, which includes slip on- and off-ramps, southbound-to-eastbound and northbound-to-westbound loop on-ramps, and a four- to five-lane overcrossing.
- Provide traffic signal control at the Bass Lake Road/County Club Drive (Intersection 4), Bass Lake Road/US 50 westbound ramps (Intersection 5) intersection and at the Bass Lake Road/US 50 eastbound ramps (Intersection 6) with coordinated traffic signal operation.

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- Construct the Marble Valley Parkway connection (i.e., the two-lane connection that lies outside the project area) that will complete Marble Valley Parkway between Marble Lake Boulevard and Cambridge Road.

The project identified in the CIP describes reconstruction of the interchange at its current location, which would be a similar to the US 50/El Dorado Hills Boulevard interchange. An alternative approach, that should be considered, would relocate the interchange east of its current location, similar to the US 50/Silva Valley Parkway interchange. This approach would provide for a more flexible design, implementation phasing, and allow use of the current US 50 undercrossing for local access.

Implementation of this improvement would result in acceptable LOS D or better operations during the AM and PM peak hours. With this improvement, this impact would be **less than significant**.

The analysis of the project under existing conditions assumes that the entire project develops immediately. However, development of the proposed project is anticipated to occur over 20 or more years. Consequently, the phasing of offsite infrastructure improvement is not certain and will be influenced by the following factors:

- The rate and location of regional development
- The location of development within the project site
- The type of development within the project site
- The implementation of roadway improvement constructed by others

The project applicant should work collaboratively with El Dorado County to initiate programming studies to identify the scope of the ultimate interchange reconstruction, which will be used to guide phased implementation of at-grade improvements and interchange reconstruction to ensure consistency with General Plan Policy TC-Xf.

Since the project is included in the County's 10-year CIP, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement.

Mitigation 3 - Bass Lake Road/US 50 westbound ramps (Intersection 5) – This intersection will be part of the planned reconstruction of the US 50/Bass Lake Road interchange, which is included in the County's 10-year CIP. Implementation of Mitigation 2 would provide LOS B operation in the AM and PM peak hour at the Bass Lake Road/US 50 westbound

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ramps with build-out of the proposed project. With this improvement, this impact would be **less than significant**.

Mitigation 4 - Bass Lake Road/US 50 eastbound ramps (Intersection 6) – This intersection will be part of the planned reconstruction of the US 50/Bass Lake Road interchange, which is included in the County's 10-year CIP. Implementation of Mitigation 2 would provide LOS C and D operation in the AM and PM peak hour at the Bass Lake Road/US 50 eastbound ramps with build-out of the proposed project. With this improvement, this impact would be **less than significant**.

Mitigation 5 - Marble Valley Parkway/Marble Mountain Road (Intersection 7) – This intersection will be part of the planned reconstruction of the US 50/Bass Lake Road interchange, which is included in the County's 10-year CIP. Implementation of Mitigation 2 would provide LOS A operation in the AM and PM peak hours with build-out of the proposed project. With this improvement, this impact would be **less than significant**.

Mitigation 6 - Marble Valley Parkway/Marble Ridge Road (Intersection 8) – This intersection will be part of the planned reconstruction of the US 50/Bass Lake Road interchange, which is included in the County's 10-year CIP. Implementation of Mitigation 2 would provide LOS A operation in the AM and PM peak hours with build-out of the proposed project. With this improvement, this impact would be **less than significant**.

Mitigation 7 - Cambridge Road/Country Club Drive (Intersection 9) – Implementation of the following improvements to the Cambridge Road/Country Club Drive intersection would result in acceptable LOS B and C operation during the AM and PM peak hours, respectively:

- Install traffic signal control
- Provide one left-turn lane and a shared through/right-turn lane on the northbound and southbound approaches
- Provide protected left-turn phasing on the northbound and southbound approaches

Implementation of this improvement would result in acceptable LOS E or better operations during the AM and PM peak hours. With this improvement, this impact would be **less than significant**.

The analysis of the project under existing conditions assumes that the entire project develops immediately. However, development of the proposed project is anticipated to occur over 20 or more years. Consequently, the phasing of offsite infrastructure improvement is not certain and will be influenced by the following factors:

- The rate and location of regional development

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- The location of development within the project site
- The type of development within the project site
- The implementation of roadway improvement constructed by others

If constructed by others prior to residential development levels in the project site that would require this mitigation, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement. If not constructed by others, the applicant would be responsible for implementing this improvement consistent with General Plan Goal TC-X and supporting Policy TC-Xf to ensure that transportation improvements are implemented concurrent with approved residential development. If constructed by the applicant, the applicant would be subject to fee credit or reimbursement through the County's traffic impact mitigation fee program.

Mitigation 8 - Cambridge Road/Knollwood Drive (Intersection 10) – This intersection will be part of the planned Phase 1 improvements to the US 50/Cambridge Road Interchange, which are included in the County's 10-year CIP. Implementation of the following improvements to the Cambridge Road/Knollwood Drive intersection would result in acceptable LOS C and B operation during the AM and PM peak hours, respectively:

- Install traffic signal control
- Provide coordinated traffic signal operation with westbound off-ramp terminal intersection
- Provide one left-turn lane and a shared through/right-turn lane on the northbound and southbound approaches
- Provide protected left-turn phasing on the northbound and southbound approaches

Implementation of this improvement would result in acceptable LOS E or better operations during the AM and PM peak hours. With this improvement, this impact would be **less than significant**.

The analysis of the project under existing conditions assumes that the entire project develops immediately. However, development of the proposed project is anticipated to occur over 20 or more years. Consequently, the phasing of offsite infrastructure improvement is not certain and will be influenced by the following factors:

- The rate and location of regional development

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- The location of development within the project site
- The type of development within the project site
- The implementation of roadway improvement constructed by others

Since the project is included in the County's 10-year CIP, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement.

Mitigation 9 - Cambridge Road/US 50 eastbound ramps (Intersection 12) – This intersection will be part of the planned Phase 1 improvements to the US 50/Cambridge Road Interchange, which are included in the County's 10-year CIP. Implementation of the following improvements to the Cambridge Road/US 50 eastbound ramps intersection would result in acceptable LOS B and C operation during the AM and PM peak hours, respectively:

- Install traffic signal control
- Provide one left-turn lane and a shared through lane on the northbound

Implementation of this improvement would result in acceptable LOS E or better operations during the AM and PM peak hours. With this improvement, this impact would be **less than significant**.

The analysis of the project under existing conditions assumes that the entire project develops immediately. However, development of the proposed project is anticipated to occur over 20 or more years. Consequently, the phasing of offsite infrastructure improvement is not certain and will be influenced by the following factors:

- The rate and location of regional development
- The location of development within the project site
- The type of development within the project site
- The implementation of roadway improvement constructed by others

Since the project is included in the County's 10-year CIP, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement.

Mitigation 10 - Cambridge Road/Flying C Road/Crazy Horse Road (Intersection 13) – Implementation of the following improvements to the Cambridge Road/Flying C Road/Crazy Horse

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Road intersection would result in acceptable LOS C operation during the AM peak hour and LOS B operation during the PM peak hour:

- Install traffic signal control
- Provide one left-turn lane and a shared through/right-turn lane on the northbound and southbound approaches
- Provide protected left-turn phasing on the northbound and southbound approaches

Implementation of this improvement would result in acceptable LOS E or better operations during the AM and PM peak hours. With this improvement, this impact would be **less than significant**.

The analysis of the project under existing conditions assumes that the entire project develops immediately. However, development of the proposed project is anticipated to occur over 20 or more years. Consequently, the phasing of offsite infrastructure improvement is not certain and will be influenced by the following factors:

- The rate and location of regional development
- The location of development within the project site
- The type of development within the project site
- The implementation of roadway improvement constructed by others

If constructed by others prior to residential development levels in the project site that would require this mitigation, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement. If not constructed by others, the applicant would be responsible for implementing this improvement consistent with General Plan Goal TC-X and supporting Policy TC-Xf to ensure that transportation improvements are implemented concurrent with approved residential development. If constructed by the applicant, the applicant would be subject to fee credit or reimbursement through the County's traffic impact mitigation fee program.

Mitigation 11 - El Dorado Hills Boulevard/Park Drive/Saratoga Way (Intersection 19) – Implementation of the US 50/El Dorado Hills Boulevard interchange improvements, which are currently under construction, would result in acceptable LOS C operations at El Dorado Hills Boulevard/Park Drive/Saratoga Way intersection during the AM and PM peak hours. With this improvement, this impact would be **less than significant**.

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This improvement will be completed prior to development in the project site.

Therefore, payment of traffic impact mitigation fees will satisfy the project's fair share obligation towards this improvement.

Mitigation 12 - Latrobe Road/Town Center Boulevard (Intersection 21) – Implementation of the US 50/El Dorado Hills Boulevard interchange improvements, which are currently under construction and the addition of a westbound right-turn overlap phase or opening the north leg of the White Rock Road/Town Center Drive intersection (full improvements are constructed), would result in acceptable LOS C and E operations at the Latrobe Road/Town Center Boulevard intersection during the AM and PM peak hours, respectively. Unacceptable operations at this intersection are due primarily to poor lane utilization on northbound Latrobe Road during construction. With this improvement, this impact would be **less than significant**.

The improvements at the US 50/El Dorado Hills Boulevard interchange will be completed prior to development in the project site. Therefore, payment of traffic impact mitigation fees will satisfy the project's fair share obligation towards this improvement. The project would be responsible for the cost to implement right-turn overlap phasing or opening the north leg of the White Rock Road/Town Center Drive intersection.

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TABLE 16: INTERSECTION LOS AND DELAY – EXISTING PLUS PROJECT MITIGATIONS

Intersection	LOS Target	Control	Existing Conditions		Existing + Project Conditions		Existing + Project Mitigations	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1. Bass Lake Road/Serrano Parkway	E	AWSC	D / 31	B / 13	***F / 61***	C / 18	B / 19	B / 11
4. Bass Lake Road/Country Club Drive	D	SSSC	**F / >180**	C / 22	***F / > 180***	***F / 129***	C / 23	B / 11
5. Bass Lake Road/US WB 50 Ramps	D	SSSC	B / 11	C / 16	***F / > 180***	***F / > 180***	B / 13	B / 15
6. Bass Lake Road/US EB 50 Ramps	D	SSSC	C / 20	**F / 58**	***F / > 180***	***F / > 180***	C / 26	D / 41
7. Marble Valley Road/ Marble Mountain Road	D	SSSC	A / 9	A / 9	***F / > 180***	***F / > 180***	A / 9	A / 9
8. Marble Valley Road/ Marble Ridge Road	D	SSSC	A / 9	A / 9	***F / > 180***	***F / > 180***	A / 9	A / 9
9. Cambridge Road/Country Club Drive	E	AWSC	E / 39	C / 18	***F / 88***	E / 39	B / 18	C / 26
10. Cambridge Road/Knollwood Drive	E	SSSC	**F / 82**	E / 41	***F / 164***	***F / 77***	C / 20	B / 15
12. Cambridge Road/US 50 EB Ramps	E	SSSC	B / 14	E / 45	***F / 98***	***F / > 180***	B / 12	C / 24
13. Cambridge Road/Flying C Road/Crazy Horse Road	E	SSSC	B / 12	B / 11	***F / > 180***	D / 29	C / 22	B / 11

TABLE 16: INTERSECTION LOS AND DELAY – EXISTING PLUS PROJECT MITIGATIONS

Intersection	LOS Target	Control	Existing Conditions		Existing + Project Conditions		Existing + Project Mitigations	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
19. El Dorado Hills Boulevard/Park Drive/Saratoga Way	E	Signal	D / 36	C / 25	***F / 103***	C / 23	C / 21	C / 21
21. Latrobe Road/Town Center Drive	E	Signal	C / 29	E / 75	C / 28	***F / 165***	C / 27	E / 62

Notes: AWSC = all-way stop control, SSSC = side-street stop control

Bold text indicates LOS worse than established threshold. Italic and underlined text identifies a potential impact.

The average delay is measured in seconds per vehicle. For signalized and AWSC intersections, the delay shown is the average control delay for the overall intersection. For SSSC intersections, the LOS and control delay for the worst movement is shown. Intersections 1, 4-10, and 12-13 are analyzed in Synchro. Intersections 19 and 20 are analyzed in SimTraffic.

Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM (TRB, 2000).

Source: Fehr & Peers, 2014

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7.1.2 FREEWAY FACILITIES

The addition of project traffic will impact US 50 operations under existing conditions. The analysis results are presented in Table 17.

Impacts

Impact 13 - US 50/Westbound Bass Lake Road On-Ramp – The addition of project traffic will result in LOS F conditions at the US 50 westbound on-ramp from Bass Lake Road. **This is a significant impact.**

Impact 14 - US 50/Westbound El Dorado Hills Boulevard Off-Ramp – The addition of project traffic will result in LOS F conditions at the US 50 westbound off-ramp to El Dorado Hills Boulevard. **This is a significant impact.**

Impact 15 - US 50/Westbound El Dorado Hills Boulevard On-Ramp – The addition of project traffic will result in LOS F conditions at the US 50 westbound on-ramp from El Dorado Hills Boulevard. **This is a significant impact.**

Mitigation

Mitigation 13 - US 50/Westbound Bass Lake Road On-Ramp – Implementation of the first phase of the US 50/Bass Lake Road interchange improvements, which are in the County's 10-year CIP, would result in acceptable LOS D (or better) and LOS B operations at westbound on-ramp merge area during the AM and PM peak hours, respectively. With this improvement, this impact would be **less than significant**.

Implementation of this improvement would result in acceptable LOS D or better operations during the AM and PM peak hours. With this improvement, this impact would be **less than significant**.

Since the project is included in the County's 10-year CIP, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement.

Mitigation 14 - US 50/Westbound El Dorado Hills Boulevard Off-Ramp – Implementation of the US 50/Silva Valley Parkway interchange improvements, which is currently under construction, would result in acceptable LOS D and LOS B operations at westbound on-ramp merge area during the AM and PM peak hours, respectively. With this improvement, this impact would be **less than significant**.

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Implementation of this improvement would result in acceptable LOS E or better operations during the AM and PM peak hours. With this improvement, this impact would be **less than significant**.

The analysis of the project under existing conditions assumes that the entire project develops immediately. However, development of the proposed project is anticipated to occur over 20 or more years. Consequently, the phasing of offsite infrastructure improvement is not certain and will be influenced by the following factors:

- The rate and location of regional development
- The location of development within the project site
- The type of development within the project site
- The implementation of roadway improvement constructed by others

Since the improvements are either under construction or included in the County's 10-year CIP, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards the improvements.

Mitigation 15 - US 50/Westbound El Dorado Hills Boulevard On-Ramp – Implementation of the US 50/El Dorado Hills Boulevard interchange and US 50/Silva Valley Parkway interchange improvements, which are currently under construction, and the two-lane extension of Saratoga Way (Finders Way to Iron Point Road in the City of Folsom), which is in the County's 10-year CIP, would result in acceptable LOS D operations at westbound on-ramp merge area during the AM and PM peak hours:

With these improvements, this impact would be **less than significant**.

Since the improvements are either under construction or included in the County's 10-year CIP, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards these improvements.

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TABLE 17: FREEWAY FACILITY PEAK HOUR LEVEL OF SERVICE – EXISTING PLUS PROJECT CONDITIONS MITIGATION

Freeway	Segment	Facility Type	Existing Density[1] / LOS		Existing + Project Density[1] / LOS		Existing + Project Mitigation Density[1] / LOS	
			AM	PM	AM	PM	AM	PM
US 50 WB	Bass Lake Rd on-ramp	Merge[2]	31 / D	20 / C	***- / F***	26 / C	31 / D 23 / C	21 / C 14 / B
	El Dorado Hills Blvd off-ramp	Diverge/Leisch[3]	33 / D	22 / C	***- / F***	28 / D	- / D	16 / B
	El Dorado Hills Blvd on-ramp	Merge	34 / D	24 / C	***- / F***	28 / D	26 / C	21 / C

Notes: [1]Density reported as passenger cars per mile per lane. Density is not reported for LOS F operations. Analysis based on HCM 2010. Weave segment's operations are based on the HCM 2010 and Leisch Method. If the weave segment is outside the realm of weaving, it is analyzed as a basic segment.

[2]Mitigation scenario reflects interchange improvements that includes a loop and slip on-ramp

[3]Mitigation scenario includes Silva Valley interchange, therefore is analyzed as a weave segment using the Leisch Method or a basic segment.

Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.

Source: Fehr & Peers, 2014

7.2 CUMULATIVE PLUS PROJECT

Analysis results, which are presented in Table 18, indicate that the addition of the project would exacerbate unacceptable operations at 12 study intersections and result in unacceptable operations at two intersections. The following discusses these impacts and associated mitigation:

7.2.1 INTERSECTIONS

Impacts

Impact 16 - Bass Lake Road/Serrano Parkway (Intersection 1) – This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours. **This is a significant impact**.

Impact 17 - Bass Lake Road/Hollow Oak Drive (Intersection 2) – This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours. **This is a significant impact.**

Impact 18 - Bass Lake Road/Old Bass Lake Road (Intersection 3) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours. **This is a significant impact.**

Impact 19 - Bass Lake Road/Country Club Drive (Intersection 4) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours. **This is a significant impact**.

Impact 20 - Bass Lake Road/US 50 westbound ramps (Intersection 5) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection will operate unacceptably at LOS E in the AM peak hour and LOF F in the PM peak hour without the project. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours. Poor operation at this intersection will result in vehicle queuing on the westbound off ramp during the PM peak hour that could cause vehicles to spill back to the US 50 mainline, impacting mainline operations. **This is a significant impact.**

Impact 21 - Bass Lake Road/US 50 eastbound ramps (Intersection 6) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection will operate unacceptably at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours. Poor operation at this intersection will result in vehicle queuing on the eastbound off ramp during the PM peak hour that could cause vehicles to spill back to the US 50 mainline, impacting mainline operations. **This is a significant impact.**

Impact 22 - Marble Valley Parkway/Marble Mountain Road (Intersection 7) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection will operate acceptably at LOS D without the project

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during the AM and PM peak hours. The project results in unacceptable (LOS F) conditions during the AM and PM peak hours. **This is a significant impact.**

Impact 23 - Marble Valley Parkway/Marble Ridge Road (Intersection 8) – This intersection is located in the County's Rural Region and is subject to the LOS D significance threshold. This intersection will operate acceptably at LOS C during the AM peak hour and unacceptably at LOS E without the project during the PM peak hour. The project will also result in unacceptable (LOS F) conditions during the AM peak hour and according to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the PM peak hour. **This is a significant impact.**

Impact 24 - Cambridge Road/Country Club Drive (Intersection 9) – This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours. **This is a significant impact.**

Impact 25 - Cambridge Road/Knollwood Drive (Intersection 10) – This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours. **This is a significant impact.**

Impact 26 - Cambridge Road/US 50 westbound ramps (Intersection 11) – This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours. **This is a significant impact.**

Impact 27 - Cambridge Road/Flying C Road/Crazy Horse Road (Intersection 13) – This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours. **This is a significant impact.**

Impact 28 - El Dorado Hills Boulevard/Park Drive/Saratoga Way (Intersection 19) – This intersection will operate acceptably at LOS D during the AM peak hour and unacceptably at LOS F without the project during the PM peak hour. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the PM peak hour. **This is a significant impact.**

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Impact 29 - Latrobe Road/Town Center Drive (Intersection 21) – This intersection will operate at LOS F without the project during the AM and PM peak hours. According to established significance criteria, the project is projected to "significantly worsen" conditions, since it would add more than 10 trips to the intersection during the AM and PM peak hours. **This is a significant impact.**

Mitigation

Mitigation 16 - A traffic signal has been constructed at the Bass Lake Road/Serrano Parkway intersection as part of the realignment of Sienna Ridge Road. Traffic signal control will result in acceptable LOS B and LOS C operation during the AM and PM peak hours, respectively. With this improvement, this impact would be **less than significant.**

Mitigation 17 - Bass Lake Road/Hollow Oak Drive (Intersection 2) – Implementation of the following improvements to the Bass Lake Road/Hollow Oak Drive intersection would result in acceptable LOS B operation during the AM and PM peak hours:

- Install traffic signal control

Implementation of this improvement would result in acceptable LOS E or better operations during the AM and PM peak hours. With this improvement, this impact would be **less than significant**.

The widening of Bass Lake Road from two to four lanes from US 50 to Silver Springs Parkway is in the County's CIP. As a funded project, the widening of this segment was assumed in the cumulative conditions analysis. This signalization of the Bass Lake Road/Hollow Oak Drive intersection would likely be part of the planned widening of Bass Lake Road. Payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement.

Mitigation 18 - Bass Lake Road/Old Bass Lake Road (Intersection 3) – Implementation of the following improvements to the Bass Lake Road/Old Bass Lake Road intersection would result in acceptable LOS B and A operations during the AM and PM peak hours, respectively:

- Install traffic signal control

With this improvement, this impact would be **less than significant**.

The widening of Bass Lake Road from two to four lanes from US 50 to Silver Springs Parkway is in the County's CIP. As a funded project, the widening of this segment was assumed in the cumulative conditions analysis. This signalization of the Bass Lake Road/Old Bass Lake Road intersection would likely be part of the planned widening of Bass Lake Road. Payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement.

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Mitigation 19 - Bass Lake Road/Country Club Drive (Intersection 4) – This intersection will be part of the planned widening of Bass Lake Road and the reconstruction of the US 50/Bass Lake Road interchange, which are included in the County's 10-year CIP. Implementation of the US 50/Bass Lake Road interchange reconstruction project, which has not been designed, would result in acceptable LOS D operation during the AM and PM peak hours at the Bass Lake Road/Country Club Drive intersection. The following improvements would provide acceptable operation:

- Relocate Country Club Drive north of its current intersection with Bass Lake Road to improve intersection spacing with the interchange ramp intersections.
- Reconstruct US 50/Bass Lake Road interchange to provide a Type L-9 Configuration, which includes slip on- and off-ramps, southbound-to-eastbound and northbound-to-westbound loop on-ramps, and a four- to five-lane overcrossing.
- Provide traffic signal control at the Bass Lake Road/County Club Drive (Intersection 4), Bass Lake Road/US 50 westbound ramps (Intersection 5) intersection and at the Bass Lake Road/US 50 eastbound ramps (Intersection 6) with coordinated traffic signal operation.
- Construct the Marble Valley Parkway connection (i.e., the two-lane connection that lies outside the project area) that will complete Marble Valley Parkway between Marble Lake Boulevard and Cambridge Road.

The project identified in the CIP describes reconstruction of the interchange at its current location, which would be a similar to the US 50/El Dorado Hills Boulevard interchange. An alternative approach, that should be considered, would relocate the interchange east of its current location, similar to the US 50/Silva Valley Parkway interchange. This approach would provide for a more flexible design, implementation phasing, and allow use of the current US 50 undercrossing for local access.

Implementation of this improvement would result in acceptable LOS D or better operations during the AM and PM peak hours. With this improvement, this impact would be **less than significant**.

Since the project is included in the County's 10-year CIP, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement.

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Mitigation 20 - Bass Lake Road/US 50 westbound ramps (Intersection 5) – This intersection will be part of the planned reconstruction of the US 50/Bass Lake Road interchange, which is included in the County's CIP. Implementation of Mitigation 17 would provide LOS C operation in the AM and PM peak hour. With this improvement, this impact would be **less than significant**.

Mitigation 21 - Bass Lake Road/US 50 eastbound ramps (Intersection 6) – This intersection will be part of the planned reconstruction of the US 50/Bass Lake Road interchange, which is included in the County's CIP. Implementation of Mitigation 17 would provide LOS B and C operation in the AM and PM peak hours, respectively. With this improvement, this impact would be **less than significant**.

Mitigation 22 - Marble Valley Parkway/Marble Mountain Road (Intersection 7) – This intersection will be part of the planned reconstruction of the US 50/Bass Lake Road interchange, which is included in the County's CIP. Implementation of Mitigation 17 would provide LOS A operation in the AM and PM peak hour. With this improvement, this impact would be **less than significant**.

Mitigation 23 - Marble Valley Parkway/Marble Ridge Road (Intersection 8) – This intersection will be part of the planned reconstruction of the US 50/Bass Lake Road interchange, which is included in the County's CIP. Implementation of Mitigation 17 would provide LOS A operation in the AM and PM peak hour. With this improvement, this impact would be **less than significant**.

Mitigation 24 - Cambridge Road/Country Club Drive (Intersection 9) – Implementation of the following improvements to the Cambridge Road/Country Club Drive intersection would result in acceptable LOS D operation during the AM and PM peak hours, respectively:

- Install traffic signal control
- Provide one left-turn lane and a shared through/right-turn lane on the northbound and southbound approaches
- Provide protected left-turn phasing on the northbound and southbound approaches

Implementation of this improvement would result in acceptable LOS E or better operations during the AM and PM peak hours. With this improvement, this impact would be **less than significant**.

The Cumulative analysis includes planned and funded roadway improvements, growth consistent with the 2004 General Plan, and with approved and reasonably foreseeable projects within the study area. This is found to be an impact in the cumulative scenario without the project, but with other unapproved projects. The project

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proponent shall work with the County, during the development agreement phase, or development of the public financing plan or like process, to evaluate and determine the appropriate mitigation measures. Appropriate mitigation measures can include construction of project, fair share payments, etc.

Mitigation 25 - Cambridge Road/Knollwood Drive (Intersection 10) – This intersection will be part of the planned Phase 1 improvements to the US 50/Cambridge Road Interchange, which are included in the County's 10-year CIP. This intersection will be part of the reconstruction of the US 50/Cambridge Road interchange, which is included in the County's CIP. Implementation of the US 50/Cambridge Road interchange reconstruction project, which has not been designed, would result in acceptable LOS E operation during the AM and PM peak hours at the Cambridge Road/Knollwood Drive intersection. The following improvements would provide acceptable operation:

- Reconstruct the US 50/Cambridge Road interchange with a four-lane overcrossing
- Install traffic signal control
- Provide two left-turn lanes, one through lane, and a right-turn lane on the northbound approach
- Provide one left-turn lane and a shared through/right-turn lane on the southbound approach
- Provide a shared through/left-turn lane and separate right-turn lane on the eastbound approach with right-turn overlap phasing
- Provide a separate left-turn lane and a shared left/through/right-turn lane on the westbound approach
- Provide split phasing eastbound and westbound

The reconstruction of the US 50/Cambridge Road interchange is in the County's CIP. Caltrans project programming and corresponding design of this interchange has not been conducted. Due to its close spacing to the US 50/Cambridge Road interchange westbound ramp-terminal intersection, improvement to the Cambridge Road/Knollwood Drive intersection would likely be part of the interchange reconstruction project.

Since the project is included in the County's 10-year CIP, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement.

Mitigation 26 - Cambridge Road/Merrychase Drive/US 50 westbound ramps (Intersection 11) – This intersection will be part of the planned Phase 1 improvements to the US 50/Cambridge Road Interchange, which are included in the County's 10-year CIP.

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Implementation of the following improvements to the Cambridge Road/Merrychase Drive/US 50 westbound ramps intersection would result in acceptable LOS E operation during the AM and PM peak hours:

- Reconstruct the US 50/Cambridge Road interchange with a four lane overcrossing
- Install traffic signal control
- Provide one left-turn lane, two through lanes, and a right-turn lane (to the loop on-ramp) on the northbound approach
- Provide one left-turn lane, one through lane, and a shared through/right-turn lane on the southbound approach
- Provide a shared through/left-turn lane and a right-turn lane on the eastbound approach
- Provide two left-turn lanes, a shared through/right-turn lane, and a separate right-turn lane on the westbound approach

The reconstruction of the US 50/Cambridge Road interchange is in the County's CIP. Caltrans project programming and corresponding design of this interchange has not been conducted.

Since the project is included in the County's 10-year CIP, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement.

Mitigation 27 - Cambridge Road/Flying C Road/Crazy Horse Road (Intersection 13) – Implementation of the following improvements to the Cambridge Road/Flying C Road/Crazy Horse Road intersection would result in acceptable LOS C and D operation during the AM and PM peak hours, respectively:

- Reconstruct the US 50/Cambridge Road interchange with a four lane overcrossing
- Install traffic signal control
- Provide one left-turn lane, one through lane, and a shared through/right-turn lane on the northbound approach
- Provide one left-turn lane, one through lane, and a right-turn lane on the southbound approach
- Provide a shared left/through/right-turn lane on the eastbound and westbound approach

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The reconstruction of the US 50/Cambridge Road interchange is in the County's CIP. Caltrans project programming and corresponding design of this interchange has not been conducted. Due to its close spacing to the US 50/Cambridge Road interchange eastbound ramp-terminal intersection, improvement to the Cambridge Road/Flying C Road/Crazy Horse Road intersection would likely be part of the interchange reconstruction project.

If constructed by others prior to residential development levels in the project site that would require this mitigation, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement. If not constructed by others, the applicant would be responsible for implementing this improvement consistent with General Plan Goal TC-X and supporting Policy TC-Xf to ensure that transportation improvements are implemented concurrent with approved residential development. If constructed by the applicant, the applicant would be subject to fee credit or reimbursement through the County's traffic impact mitigation fee program.

Mitigation 28 - El Dorado Hills Boulevard/Park Drive/Saratoga Way (Intersection 19) – Implementation of the following improvements to the El Dorado Hills Boulevard/Park Drive/Saratoga Way intersection would result in acceptable LOS D operations during the PM peak hour:

- Modify the northbound approach to provide one left-turn lane, three through lanes, and a separate right-turn lane
- Modify the eastbound approach to provide two left-turn lanes, one through lane, and a separate right-turn lane
- Modify the westbound approach to provide one left-turn lane, one through lane, and a separate right-turn lane
- Provide protected left-turn phasing east and westbound
- Optimize traffic signal timings to accommodate the revised intersection lane configurations
- Restrict access at the Saratoga Way/Mammouth Way intersection to right-in/right-out
- Install a traffic signal at the Saratoga Way/Arrowhead Drive intersection

With this improvement, this impact would be **less than significant**.

Elements of these improvements are either under construction or included in the County's 10-year CIP. The 10-year CIP includes widening of El Dorado Hills Boulevard

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as part of the US 50 interchange improvements and as a separate project between Saratoga Way/Park Drive and Serrano Parkway/Lassen Lane that will add a third southbound through lane. In addition, the Saratoga Way extension (as a four-lane roadway) to Iron Point Road in the City of Folsom will improve the eastbound approach to this intersection.

Improvements to the west leg of the intersection (i.e., Saratoga Way) are needed to accommodate traffic volume increases associated primarily with the extension of Saratoga Way to Iron Point Road and not directly a result of the proposed project. The Saratoga Way Extension project will increase southbound-to-westbound traffic demand in the AM peak hour and traffic demand for the reverse movement (eastbound-to-northbound) in the PM peak hour. Consequently, most of improvements to Saratoga Way (i.e., the west leg) will not be necessary until the Saratoga Way Extension is constructed, except restriping to accommodate protected east/west left-turn phasing. However, improvements to Park Drive (i.e., east leg of the intersection) are needed to accommodate traffic from the proposed project.

Since the project is included in the County's 10-year CIP, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement.

Mitigation 29 - Latrobe Road/Town Center Boulevard (Intersection 21) – Implementation of the following improvements to the Latrobe Road/Town Center Boulevard intersection would result in acceptable LOS D and E operations during the AM and PM peak hours, respectively:

- Modify the northbound approach to provide two left-turn lanes, three through lanes, and a shared through/ right-turn lane
- Modify the westbound approach to provide a shared through/left-turn lane, and two right-turn lanes
- Provide right-turn overlap phasing for the westbound approach
- Provide split phasing east and westbound
- Optimize traffic signal timings to accommodate the revised intersection lane configurations

With this improvement, this impact would be **less than significant**.

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The widening of El Dorado Hills Boulevard is currently under construction as part of the US 50 interchange improvements. These planned improvements will accommodate the intersection lane configurations outlined above. Payment of traffic impact mitigation fees will satisfy the project's fair share obligation towards improvements at this intersection.

TABLE 18: INTERSECTION LOS AND DELAY – CUMULATIVE PLUS PROJECT MITIGATIONS

Intersection	LOS Target	Control	Cumulative Conditions		Cumulative + Project Conditions		Cumulative + Project Mitigations	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1. Bass Lake Road/Serrano Parkway	E	AWSC	**F / 112**	**F / 84**	***F / 69***	***F / 70***	B / 15	C / 25
2. Bass Lake Road/Hollow Oak Drive	E	SSSC	**F / >180**	**F / >120**	***F / >180***	***F / >180***	B / 14	B / 14
3. Bass Lake Road/Old Bass Lake Road	D	SSSC	**F / >180**	**F / >180**	***F / >180***	***F / >180***	B / 19	A / 10
4. Bass Lake Road/Country Club Drive	D	SSSC	**F / >180**	**F / >180**	***F / >180***	***F / >180***	D / 47	D / 53
5. Bass Lake Road/US WB 50 Ramps	D	Signal	**E / 58**	**F / 102**	***F / 156***	***F / >180***	C / 29	C / 21
6. Bass Lake Road/US EB 50 Ramps	D	Signal	**F / 107**	**F / 104**	***F / 148***	***F / >180***	B / 17	C / 23
7. Marble Valley Road/ Marble Ridge Road	D	SSSC	C / 16	**E / 48**	***F / >180***	***F / >180***	A / 9	A / 9
8. Cambridge Road/Country Club Drive	E	AWSC	**F / >180**	**F / >180**	***F / >180***	***F / >180***	B / 18	C / 26
9. Cambridge Road/Country Club Drive	E	AWSC	**F / >180**	**F / >180**	***F / >180***	***F / >180***	D / 41	D / 45

TABLE 18: INTERSECTION LOS AND DELAY – CUMULATIVE PLUS PROJECT MITIGATIONS

Intersection	LOS Target	Control	Cumulative Conditions		Cumulative + Project Conditions		Cumulative + Project Mitigations	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
10. Cambridge Road/Knollwood Drive	E	SSSC	**F / >180**	**F / >180**	***F / >180***	***F / >180***	E / 64	E / 76
11. Cambridge Road/Merrychase Drive/US 50 WB Ramps	E	Signal	**F / 86**	**F / 112**	***F / 135***	***F / >180***	E / 68	E / 77
13. Cambridge Road/Flying C Road/Crazy Horse Road	E	SSSC	**F / >180**	**F / >180**	***F / >180***	***F / >180***	E / 60	D / 51
19. El Dorado Hills Blvd/Park Dr/Saratoga Way	E	Signal	D / 47	**F / 143**	D / 45	***F / 115***	D / 35	D / 42
21. Latrobe Rd/Town Center Dr	E	Signal	**F / 87**	**F / 152**	***F / 86***	***F / 166***	D / 47	E / 75

Note: SSSC = side-street stop control, AWSC = all-way stop control

Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.

The average delay is measured in seconds per vehicle. For signalized and AWSC intersections, the delay shown is the average control delay for the overall intersection. Intersections 1-6, 9-11, and 13 are analyzed in Synchro 7. Intersections 19 and 21 are analyzed in SimTraffic.

Source: Fehr & Peers, 2014

7.2.2 ROADWAYS

Analysis results, which are presented in Table 19, indicate that the addition of the project would significantly worsen unacceptable operations on one study roadway segment. The following discusses this impact and associated mitigation:

Impact 30 - Cameron Park Drive (Alhambra Drive and Oxford Road) – This roadway segment would operate unacceptably at LOS F without the project during the PM peak hour. According to established significance criteria, the project is projected to "significantly

worsen" conditions, since it would add more than 10 trips to the roadway segment during the PM peak hours. **This is a significant impact.**

Mitigation 30 - Cameron Park Drive (Alhambra Drive and Oxford Road) – Implementation of the following improvements to this segment of Cameron Park Drive would result in acceptable LOS D or better operations during the AM and PM peak hours:

- Widen the segment of Cameron Park Drive from a two-lane arterial to a four-lane (undivided or divided) arterial.

Unacceptable operations on this roadway segment are due to increased traffic from planned development. This improvement is not in the County's CIP. Since the roadway segment would operate unacceptably at LOS F under cumulative conditions without the project, the project is responsible for a portion of the improvement to restore operations to an acceptable level of service, relative to the traffic that the project will contribute to the roadway under cumulative conditions.

The County's traffic impact mitigation fee program provides a mechanism for collecting fair share contributions for improvements in the CIP. The CIP is evaluated annually in response to planned growth. This improvement is not in the current CIP. Since this improvement is needed to accommodate planned growth, this improvement should be incorporated into the CIP at a future date as necessary to provide acceptable operations, consistent with General Plan Policy TC-Xf. Payment of traffic impact mitigation fees will satisfy the project's fair share obligation towards this improvement.

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TABLE 19: ROADWAY SEGMENT PEAK HOUR LEVEL OF SERVICE – CUMULATIVE PLUS PROJECT CONDITIONS MITIGATIONS

Roadway	Segment	Facility Type	Cumulative Volume / Volume – Capacity (V/C) Ratio / LOS		Cumulative + Project Volume / Volume – Capacity (V/C) Ratio / LOS		Cumulative + Project Mitigation Volume / Volume – Capacity (V/C) Ratio / LOS	
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Cameron Park Drive	Alhambra Drive to Oxford Road	2 lane arterial	1,500 / 0.91 / D	**1,750 / 1.06 / F**	1,510 / 0.92 / D	***1,770 / 1.07 / F***		
		4 lane arterial (Undivided)					1,510 / 0.48 / C	1,770 / 0.57 / D
		2 lane arterial (Divided)					1,510 / 0.46 / C	1,770 / 0.54 / C

Notes: [1]LOS at this location is C or better
Volume-to-Capacity ratio and LOS is based on the HCM 2010 peak hour level of service thresholds
Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.
Source: Fehr & Peers, 2014

7.2.3 FREEWAY FACILITIES

Analysis results, which are presented in Table 20, indicate that the addition of the project would result in unacceptable operations on one study freeway facility. The following discusses this impact and associated mitigation:

Impact 31 - US 50 Westbound Weave Section (El Dorado Hills Boulevard to Empire Ranch Road) – The addition of project traffic will result in LOS F conditions at the US 50 westbound weave section between El Dorado Hills Boulevard and Empire Ranch Road. **This is a significant impact.**

Mitigation 31 - US 50 Westbound Weave Section (El Dorado Hills Boulevard to Empire Ranch Road) – Implement the Latrobe Road Connection (CIP Project Number 66166) as a four-lane roadway would result in LOS E and D operation in the AM and PM peak hours, respectively. With this improvement, this impact would be **less than significant**.

The connection will improve accessibility for planned development south of US 50 and provide an alternative to the US 50/El Dorado Hills Boulevard Interchange and US 50 between El Dorado Hills Boulevard and Empire Ranch Road.

Development of the proposed project is anticipated to occur over 20 or more years. Consequently, the phasing of offsite infrastructure improvement is not certain and will be influenced by the following factors:

- The rate and location of regional development
- The location of development within the project site
- The type of development within the project site
- The implementation of roadway improvement constructed by others

If constructed by others prior to residential development levels in the project site that would require this mitigation, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement. If not constructed by others, the applicant would be responsible for implementing this improvement consistent with General Plan Goal TC-X and supporting Policy TC-Xf to ensure that transportation improvements are implemented concurrent with approved residential development. If constructed by the applicant, the applicant would be subject to fee credit or reimbursement through the County's traffic impact mitigation fee program.

TABLE 20: FREEWAY FACILITY PEAK HOUR LEVEL OF SERVICE – CUMULATIVE PLUS PROJECT CONDITIONS MITIGATION

Freeway	Segment	Facility Type	Cumulative Density[1] / LOS		Cumulative + Project Density[1] / LOS		Cumulative + Project Mitigation Density[1] / LOS	
			AM	PM	AM	PM	AM	PM
US 50 WB	El Dorado Hills Blvd to Empire Ranch Rd	Weave	44 / E	34 / D	***- / F***	34 / D	43 / E	33 / D

TABLE 20: FREEWAY FACILITY PEAK HOUR LEVEL OF SERVICE – CUMULATIVE PLUS PROJECT CONDITIONS MITIGATION

Freeway	Segment	Facility Type	Cumulative Density[1] / LOS		Cumulative + Project Density[1] / LOS		Cumulative + Project Mitigation Density[1] / LOS	
			AM	PM	AM	PM	AM	PM

Notes: [1]Density reported as passenger cars per mile per lane. Density is not reported for LOS F operations. Analysis based on HCM 2010. Weave segment's operations are based on the HCM 2010 and Leisch Method. If the weave segment is outside the realm of weaving, it is analyzed as a basic segment.

Bold text indicates LOS worse than established threshold. *Italic and underlined* text identifies a potential impact.

Source: Fehr & Peers, 2014

7.2.4 PEDESTRIAN AND BICYCLE FACILITIES

Impact 32 - Implementation of the proposed project will increase demand for pedestrian and bicycle facilities. As outlined in Section 6.3, the project proposes pedestrian and bicycle facilities that will connect and integrate with existing and planned facilities adjacent to the project. In addition, elements of the proposed project will provide new recreational opportunities. Therefore, the proposed project will not conflict with adopted policies, plans, or programs regarding bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. **This is a less than significant impact.**

Mitigation 32 - No mitigation required

7.2.5 TRANSIT

Impact 33 - Implementation of the proposed project will increase demand transit. As outlined in Section 6.4, the project could result in demand of about 8,400 transit commute trips annually, which would be an average of about 32 commute trips per weekday. This increase represents about a 20 percent increase in El Dorado Transit Commuter Service. The growth in commute trips would not likely exceed the ability to serve this ridership growth through existing funding sources for transit that are tied to population growth. However, most of the boardings for the El Dorado Transit Commuter Service at the El Dorado Hills park-n-ride lot are from El Dorado Hills residents. Consequently this increase in commuter trips will increase demand for the El Dorado Hills and Cameron Park park-n-ride lot, which operate at or near capacity. **This is a significant impact.**

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Mitigation 33 - The project will provide a 100 to 120 space park-n-ride lot, which would accommodate the estimated demand for park-n-ride facilities anticipated by the project. Therefore, Implementation of the project, which includes park-n-ride facilities would reduce this impact to a **less than significant level**.

7.2.6 EMERGENCY ACCESS

Impact 34 - The proposed project will provide two points of access from the US 50/Bass Lake Road and US 50/Cambridge Road interchanges and an emergency vehicle access to the west towards the Valley View and East Ridge Specific Plan areas for emergency vehicle access. This is a **less than significant impact**.

Mitigation 34 - No mitigation required

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8.0 OTHER CONSIDERATIONS

8.1.1 SITE ACCESS

Proposed circulation for the Village of Marble Valley Specific Plan is shown to the right. US 50 access will be through the US 50/Bass Lake Road and US 50/Cambridge Road interchanges. Marble Valley Parkway is proposed as a continuous roadway connecting the Bass Lake Road and Cambridge Road interchanges. A portion of Marble Valley Parkway is outside the plan area. Marble Lake Boulevard, which is planned as a four- to two-lane roadway, will provide be the primary access roadway with major internal intersections along are planned as roundabouts. Lime Rock Valley Boulevard will extend east of Marble Lake Boulevard as a two-lane roadway.

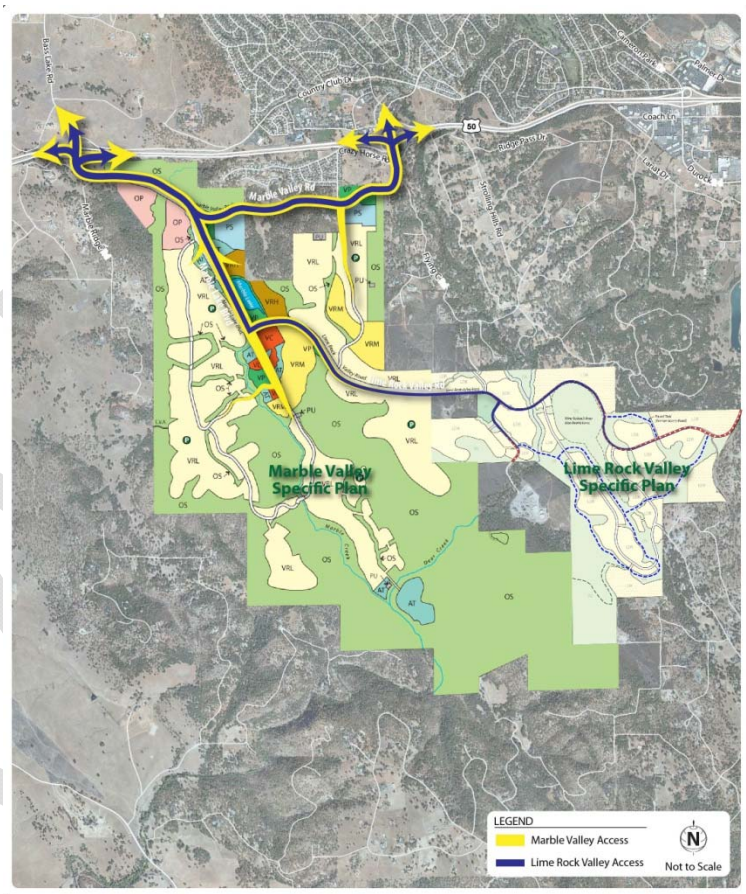


Figure 13 shows the proposed intersection layout and lane assumptions for Marble Lake Boulevard necessary to support the Village of Marble Valley and the proposed Lime Rock Valley Specific Plan, which is located just east of the proposed project given the planned access discussed above. The following summarizes the key design features of the proposed intersections:

- Intersection 1- A two-lane roundabout with a northbound-to-eastbound right-turn bypass lane.
- Intersection 2 - A two-lane roundabout with a southbound-to-westbound right-turn bypass lane.
- Intersection 3 - A couplet intersection with one northbound and one southbound lane on Marble Lake Boulevard (uncontrolled) and stop controls at all of the minor movements (eastbound and westbound).
- Intersection 4 - A two-lane roundabout with a westbound-to-northbound right-turn bypass lane.
- Intersection 5 - A single lane roundabout.

Marble Lake Boulevard would be four lanes from US 50 to just south of Intersection 2. As shown in Table 21, the study intersections would operate acceptably with the proposed lane configurations. Detailed input assumptions and analysis results are included in Appendix A.

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Figure 13: Marble Lake Boulevard Concept [Revised Figures Pending]

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TABLE 21: PEAK HOUR LEVEL OF SERVICE – CUMULATIVE CONDITIONS (ON-SITE INTERSECTIONS)

Intersection	LOS Target	Traffic Control	LOS / Delay (seconds)	
			AM Peak Hour	PM Peak Hour
1. Marble Lake Boulevard (Intersection 1)	D	Roundabout	C / 17	D / 27
2. Marble Lake Boulevard (Intersection 2)	D	Roundabout	D / 32	B / D
3. Marble Lake Boulevard (Intersection 3)	D	SSSC	D / 34	D / 30
4. Marble Lake Boulevard/Lime Rock Valley Road (Intersection 4)	D	Roundabout	C / 22	B / 13
5. Marble Lake Boulevard (Intersection 5)	D	Roundabout	A / 9	A / 9

Notes: SSSC = side-street stop-control, AWSC = all-way stop control
The average delay is measured in seconds per vehicle. For signalized and AWSC intersections, the delay shown is the average control delay for the overall intersection. For Roundabout and SSSC intersections, the LOS and control delay for the worst movement is shown. Intersection LOS and delay is calculated based on the procedures and methodology contained in the HCM (TRB, 2000). Intersections 1-14, and 17-18 are analyzed in Synchro 7. Intersections 15-16 are analyzed in SimTraffic.
Source: Fehr & Peers, 2014

8.1.2 PEAK HOUR TRAFFIC SIGNAL WARRANT EVALUATION

An evaluation of the need for traffic signal installation was conducted using the peak hour traffic signal warrant methodologies from the California Manual on Uniform Traffic Control Devices, January 2012. Tables 22 and 23 display the results of the peak hour volume warrant for existing and cumulative conditions, respectively. Under existing conditions, all of the intersections evaluated would satisfy the peak hour signal warrant during at least one peak hour except for the Cambridge Road/Country Club Drive intersection. Under cumulative conditions, all intersections evaluated would satisfy the peak hour volume warrant.

TABLE 22: PEAK HOUR SIGNAL WARRANT EVALUATION – EXISTING PLUS PROJECT CONDITIONS

Unsignalized Intersections	Peak Hour Signal Warrant Met [1]

	Existing Conditions		Existing + Project Conditions	
	AM	**PM**	**AM**	**PM**
1. Bass Lake Road / Serrano Parkway	No	No	Yes	Yes
4. Bass Lake Road / Country Club Drive	Yes	No	Yes	Yes
5. Bass Lake Road / US 50 WB Ramps	No	No	Yes	Yes
6. Bass Lake Road / US 50 EB Ramps	No	No	Yes	Yes
9. Cambridge Road / Country Club Drive	No	No	No	No
10. Cambridge Road / Knollwood Drive	No	No	Yes	No
12. Cambridge Road / US 50 EB Ramps	No	Yes	Yes	Yes

Notes: [1] Based on the Peak Hour Volume warrant (for urban areas) contained in the *California Manual on Uniform Traffic Control Devices* (CA MUTCD), Caltrans, 2012.

Source: Fehr & Peers, 2014

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TABLE 23: PEAK HOUR SIGNAL WARRANT EVALUATION – CUMULATIVE CONDITIONS

Unsignalized Intersections	Peak Hour Signal Warrant Met [1]			
	Cumulative Conditions		Cumulative + Project Conditions	
	AM	PM	AM	PM
1. Bass Lake Road / Serrano Parkway	Yes	Yes	Yes	Yes
2. Bass Lake Road / Hollow Oak Drive	Yes	Yes	Yes	Yes
4. Bass Lake Road / Country Club Drive	Yes	Yes	Yes	Yes
5. Bass Lake Road / US 50 WB Ramps	Signalized intersection under cumulative conditions			
6. Bass Lake Road / US 50 EB Ramps	Signalized intersection under cumulative conditions			
9. Cambridge Road / Country Club Drive	No	Yes	No	Yes
10. Cambridge Road / Knollwood Drive	Yes	Yes	Yes	Yes
12. Cambridge Road / US 50 EB Ramps	Signalized intersection under cumulative conditions			

Note: [1] Based on the Peak Hour Volume warrant (for urban areas) contained in the *California Manual on Uniform Traffic Control Devices* (CA MUTCD), Caltrans, 2012.

Source: Fehr & Peers, 2014

This analysis is intended to examine the general correlation between the planned level of future development and the need to install new traffic signals. It estimates future development-generated traffic compared against a sub-set of the standard traffic signal warrants recommended in the Federal Highway Administration Manual on Uniform Traffic Control Devices (California MUTCD 2012 Edition. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured, rather than forecast, traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely upon the warrants, since the installation of signals can lead to certain types of collisions. El Dorado County should undertake regular monitoring of actual traffic conditions and accident data, and timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

TECHNICAL MEMORANDUM

Date: March 8, 2021

To: Kirk Bone – Serrano Associates

From: David B. Robinson – Fehr & Peers

Subject: Village of Marble Valley Specific Plan VMT Analysis RS12-3016

This memorandum presents vehicle miles traveled (VMT) analysis of the proposed Village of Marble Valley Specific Plan (VMVSP).

With the implementation of Senate Bill (SB) 743, local agencies such as El Dorado County may no longer rely on vehicular delay or capacity-based analyses for California Environmental Quality Act (CEQA) impact determination. Instead, agencies must analyze transportation impacts utilizing VMT, a measure of the total distance traveled by vehicles for trips beginning or ending in the County on a typical weekday. This memorandum covers the following topics:

- SB 743
- VMT Thresholds of Significance
- VMT Estimation Methodology
- Project Summary
- VMT for Village of Marble Valley Specific Plan

SB 743

Passed in 2013, SB 743 changes the focus of transportation impact analysis in CEQA from measuring impacts to drivers, to measuring the impact of driving. The change is being made by replacing LOS with vehicle miles of travel (VMT). This shift in transportation impact focus is intended to better align transportation impact analysis and mitigation outcomes with the State's goals to reduce greenhouse gas (GHG) emissions, encourage infill development, and improve public health through more active transportation. Level of service or other delay metrics may still be used to evaluate the impact of projects on drivers as part of land use entitlement review and impact fee programs.

In January 2019, the Natural Resources Agency finalized updates to the CEQA Guidelines including the incorporation of SB 743 modifications. The Guidelines' changes were approved by the Office of

Administrative Law and are now in effect. Specific to SB 743, Section 15064.3(c) states, "A lead agency may elect to be governed by the provisions of this section immediately. The provisions apply statewide as of July 1, 2020.

To help aid lead agencies with SB 743 implementation, the Governor's Office of Planning and Research (OPR) produced the *Technical Advisory on Evaluating Transportation Impacts in CEQA*[1] (December 2018) that provides guidance about the variety of implementation questions they face with respect to shifting to a VMT metric. Key guidance from this document includes:

- VMT is the most appropriate metric to evaluate a project's transportation impact.
- OPR recommends tour- and trip-based travel models to estimate VMT, but ultimately defers to local agencies to determine the appropriate tools.
- OPR recommends measuring VMT for residential and office projects on a "per rate" basis.
- OPR recommends that a per capita or per employee VMT that is fifteen percent below that of existing development may be a reasonable threshold. In other words, an office project that generates VMT per employee that is more than 85 percent of the regional VMT per employee could result in a significant impact. OPR notes that this threshold is supported by evidence that connects this level of reduction to the State's emissions goals.
- OPR recommends that where a project replaces existing VMT-generating land uses, if the replacement leads to a net overall decrease in VMT, the project would lead to a less-than-significant transportation impact. If the project leads to a net overall increase in VMT, then the thresholds described above should apply.
- Lead agencies have the discretion to set or apply their own significance thresholds.

VMT Thresholds of Significance

In 2019, the El Dorado County Transportation Commission completed the *El Dorado County and City of Placerville SB 743 Implementation Plan*[2] (July 19, 2019) to support El Dorado County and the City of Placerville with implementation of SB 743, including the selection of VMT analysis methodology, setting thresholds of significance, and potential mitigation.

[1] Governor's Office of Planning and Research. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018. https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf

[2] El Dorado County Transportation Commission. *El Dorado County and City of Placerville SB 743 Implementation Plan.* July 19, 2019. https://www.edcgov.us/Government/dot/Documents/Transportation%20Planning/EDCTC%20SB743%20Implementation%20Plan.pdf

With Resolution 141-2020[3] (October 6, 2020), the Board of Supervisors of the County of El Dorado adopted VMT thresholds of significance for purposes of analyzing transportation impacts under CEQA.

The County's VMT thresholds consider the VMT performance of residential and office components of a project separately, using the efficiency metrics of VMT per capita and VMT per employee, respectively. For retail components of a project, the county-wide VMT effect is analyzed. The El Dorado County VMT thresholds of significance are summarized below for each of these components:

- Residential – 15% below baseline unincorporated countywide VMT per Capita
- Commercial Office – 15% below baseline unincorporated countywide VMT per Employee
- Commercial Retail – No net increase in VMT

VMT Estimation Methodology

Consistent with Resolution 141-2020, VMT estimation was conducted using the El Dorado County Travel Demand Forecasting Model (EDCTDM). The VMT estimation process generates estimates in a manner that is consistent with OPRs Technical Advisory and the selected VMT significance thresholds outlined above.

The following section from the Technical Advisory suggests that lead agencies should use VMT estimation methodologies that account for the "full extent of vehicle travel".

> **Considerations for All Projects**. Lead agencies should not truncate any VMT analysis because of jurisdictional or other boundaries, for example, by failing to count the portion of a trip that falls outside the jurisdiction or by discounting the VMT from a trip that crosses a jurisdictional boundary. CEQA requires environmental analyses to reflect a "good faith effort at full disclosure." (CEQA Guidelines, § 15151.) Thus, where methodologies exist that can estimate the full extent of vehicle travel from a project, the lead agency should apply them to do so. Where those VMT effects will grow over time, analyses should consider both a project's short-term and long-term effects on VMT.

To provide a full accounting of vehicle travel, the EDCTDM provides VMT estimates that include the VMT from intrazonal vehicle trips and trip length adjustments for the trips that enter or exit the area covered by the EDCTDM.

Intrazonal Trips and Trip Lengths

The VMT estimation process includes intrazonal trips in its estimates. Intrazonal trips are trips that have their origin and destination within the same traffic analysis zone (TAZ). Because these trips do not leave a TAZ, they are not assigned to the EDCTDM's roadway network. Consequently, intrazonal trips cannot be

[3] Board of Supervisors of the County of El Dorado Resolution 141-2020. https://www.edcgov.us/Government/dot/Documents/Transportation%20Planning/Executed%20Resolution%20141-2020.pdf

directly derived from the EDCTDM's network and must be estimated to provide a more complete VMT analysis. The intrazonal trip lengths are estimated by calculating half of the shortest travel distance between a given TAZ and all the other TAZs, using the EDCTDM's midday assignment. The EDCTDM uses the following four assignment periods to develop a 24-hour travel assignment:

- AM3VS.NET – AM 3-Hour Assignment
- MDVS.NET – Midday 5-Hour Assignment
- P3V.NET – PM 3-Hour Assignment
- EVV.NET – Evening 13-Hour Assignment

The different assignment periods are used to account for the affect that congestion has on accessibility (i.e., the ability to travel between two locations). It typically takes longer to travel the same distance during peak periods than it does during other times of the day. The midday 5-hour assignment period is used to calculate intrazonal travel because there is generally less traffic and less congestion (i.e., compared to the AM or PM peak periods) and is more representative of average daily conditions.

Gateway Trip Length Adjustments

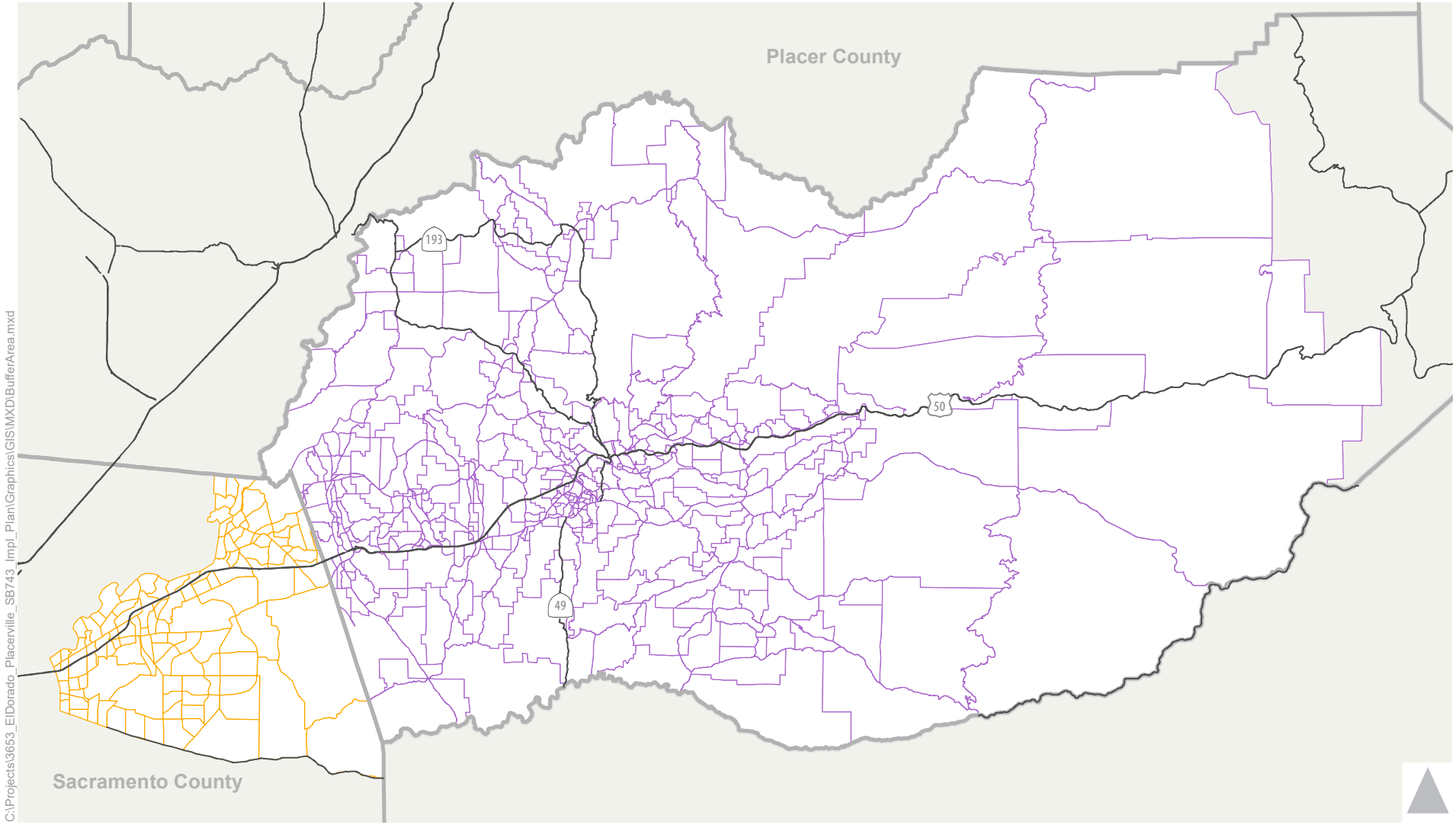
The EDCTDM includes a buffer area that extends along Highway 50 from El Dorado County into eastern Sacramento County, including the City of Folsom and City of Rancho Cordova. **Figure 1** shows the model area, including the TAZs that represent El Dorado County (purple), the buffer area (yellow), and the state highway system. The buffer area allows for more detailed modeling of travel interaction between El Dorado County and eastern Sacramento County. However, even with the buffer area, adjustments to the length of trips passing through the EDCTDM's gateway locations are necessary to account for the full length of trips throughout California.

Table 1 summarizes the average trip lengths for trips entering (XI) and exiting (IX) the EDCTDM developed using the California Statewide Travel Demand Model (CSTDM). Although not as detailed a the EDCTDM, the CSTDM can summarize the general patterns of trips made by El Dorado County residents and employees entering and leaving the County throughout California. The CSTDM scale makes it a useful tool to generate trip length estimates for trips entering or leaving the EDCTDM coverage area.

Because of the sample size limitations with the California Household Travel Survey (CHTS) data (i.e., only 163 recorded trips), trip length adjustments from the CSTDM are used. The average additional travel distance from the CSTDM shown in **Table 1** indicate the additional lengths added to the trips that pass through the EDCTDM's gateway locations.

Table 1: Average Trip Length Adjustments for Each Gateway Location				
			Average Additional Travel Distance (miles)	
Gateway Location	Direction	Gateway Node ID	Internal to External (IX) Trips	External to Internal (XI) Trips
US 50	West	650	12.41	13.08
Dillard Road	South	651	4.11	3.96
Sloughhouse Road	South	652	0.00	0.00
Grant Line Rd/Sunrise Boulevard	South	653	31.33	20.39
Excelsior Road	South	654	11.07	10.38
Bradshaw Road	South	655	11.32	8.80
Mayhew Road	South	656	0.00	0.00
Jackson Road (SR 16)	West	657	6.91	6.40
Local Access between Bradshaw Road and Excelsior Road	South	658	0.00	0.00
Eagles Nest Road	South	659	0.00	0.00
Folsom Boulevard	West	660	7.73	7.19
Kiefer Boulevard	West	661	8.88	8.54
Sunrise Boulevard	North	662	5.47	6.14
Hazel Avenue	North	663	8.16	5.41
Folsom Auburn Road	North	664	10.17	12.66
Greenback Lane	West	665	5.43	5.17
Oak Avenue	West	666	6.97	7.44
SR 49	South	667	0.00	0.00
Jackson Road/Latrobe Road/SR 49/Omo Ranch Road	South	668	15.96	14.21
Jackson Road	South	669	0.00	0.00
Latrobe Road	South	670	0.00	0.00
SR 49	North	671	18.61	16.28
SR 88	East	672	0.00	0.00
N. South Rd	South	673	3.73	3.82
US 50	East	674	19.21	18.38

Notes:
Internal to External (IX) trips are trips that begin inside the El Dorado County model area and end outside.
External to Internal (XI) trips are trips that begin outside the El Dorado County model area and end inside.
Source: California Statewide Travel Demand Model



Traffic Analysis Zones (TAZs)

TAZs within the County

Buffer Area

Regional Centerlines

SACOG Counties

Figure 1

El Dorado County Model (2018)

Traffic Analysis Zones within El Dorado County and the Buffer Area

Model-wide Network Refinements

The EDCTDM is a countywide model developed and maintained by the County for traffic analysis related to the General Plan and Traffic Impact Fee Program. Consistent with these applications, the model includes major transportation facilities, including County arterials like El Dorado Hills Boulevard and State facilities like US 50, and a TAZ system that is at a corresponding level of detail. The EDCTDM does not include local and collector roadways. Therefore, the EDCTDM may require refinement for different applications.

The 2017 California Regional Transportation Plan Guidelines (CTC, January 2017) provides guidance on the application of travel demand models. Specifically, that travel demand models should be at an appropriate scale relative to the analysis being conducted. Consistent with this guidance, additional roadway network and TAZ detail was added in El Dorado Hills north of US 50, south of Green Valley Road, east of Sophia Parkway, and west of El Dorado Hills Boulevard to better reflect actual travel time and distance between El Dorado Hills and the City of Folsom. **Figure 2** compares the traffic analysis zone and roadway network detail with and without modification.

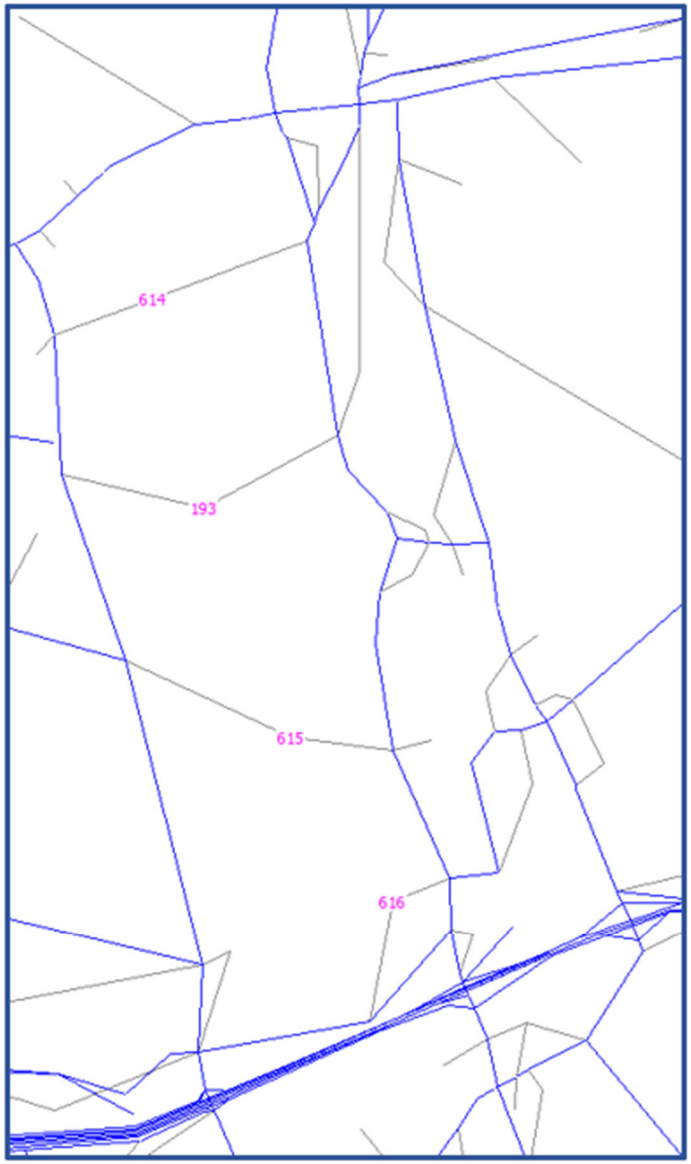
Without modification, the EDCTDM uses 4 TAZs to represent most of the land use in this area with local roadway access modeled using special model links, referred to as TAZ centroid connectors. TAZ centroid connectors provide access for the local development but not for other trips on the network. With this roadway network coding trip lengths are shorter for the land uses represented by the 4 TAZs.

The modified network increased the TAZ detail from 4 to 22 and added roadway links, instead of TAZ centroid connectors, for local access between El Dorado Hills and the City of Folsom in this area. The following public roadway connections were added between El Dorado Hills Boulevard and Sophia Parkway/Empire Ranch Road:

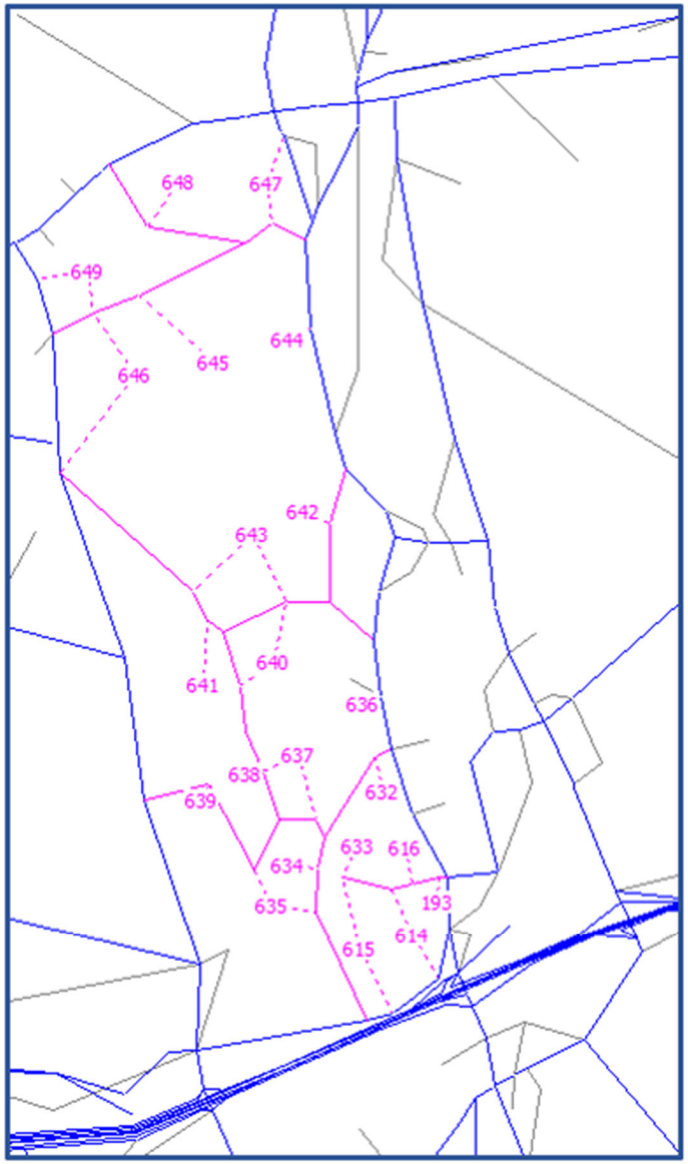
- North Connection: Brittany Way – Suffolk Way – Elmores Way
- North Central Connection: Olson Lane – Gillette Drive – Ridgeview Drive – Muse Drive – Mossridge Way – Powers Drive – Julie Ann Way – Beatty Drive – Alexandra Drive
- South Central Connection: Wilson Boulevard –Ridgeview Drive – Powers Drive – Montridge Way – Crestline Circle – Via Treviso – Via Barlogio – Hildebrand Circle – Woodhead Street
- South Connection: Wilson Boulevard (El Dorado Hills Boulevard to Saratoga Way)

Figure 2 – EDCTDM Model-Wide Network Refinements

Without Modification



With Modification



FEHR PEERS

Table 2 compares the estimated travel time from the EDCTDM after modification to field measured travel times. As shown, the model's estimated travel time is consistent with and comparable to field measurements. Therefore, the model is more representative of actual travel times and distance than the EDCTDM prior to modification since the model did not include these connections.

Table 2: Travel Time Comparison (Model Estimate vs Field Measurement)			
	Travel Time (minutes)		
Added Roadway Connection	Model Estimate	Field Measurement	Difference (Model – Field)
North	3.3	3.0	+0.3
North Central	5.2	5.1	+0.1
South Central	4.4	4.7	-0.3
South	2.5	2.7	-0.2

The TAZ and roadway network modifications shown in **Figure 2** were made to both the Base Year (2018) and Cumulative Year (2040) EDCTDMs. The modified models were used for the analysis of the proposed project to maintain analysis consistency.

Table 3 compares the VMT efficiency metrics for residential and commercial office land uses in unincorporated El Dorado County with and without the roadway network refinements outlined above and on **Figure 2**. As shown, the VMT efficiency metrics for both residential and commercial office land use increased with the network refinement. The direction and magnitude of the change is reasonable and in the correct direction relative to the network refinements made.

Table 3: VMT Efficiency Metrics with Network Refinements				
	VMT Efficiency Metrics (Unincorporated El Dorado County			
Land Use	Without Refinements	With Refinements	Difference	VMT Threshold (With Refinements)[1]
2018				
Residential	22.5	22.7	+0.2	19.3
Commercial Office	12.8	13.0	+0.2	11.1
2040				
Residential	16.9	17.1	+0.2	14.5
Commercial Office	11.7	12.0	+0.3	10.2

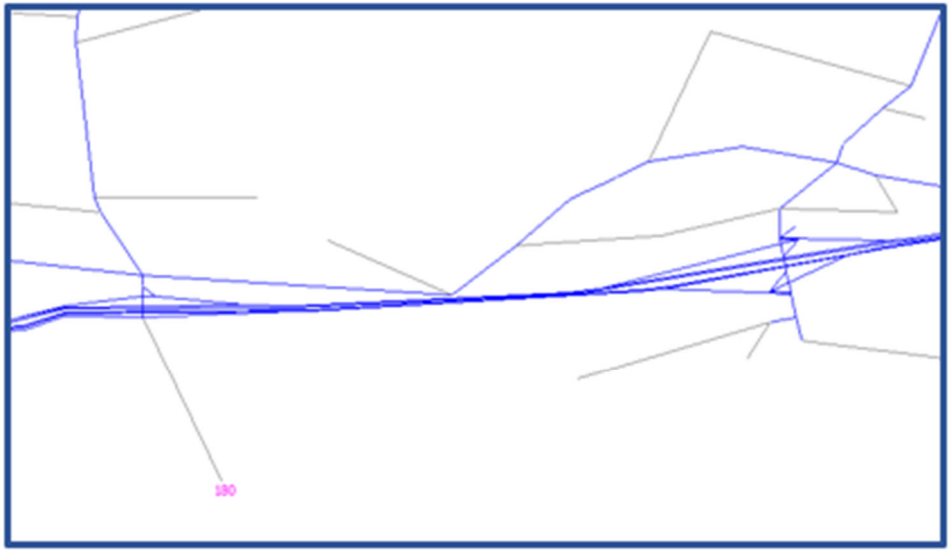
Notes:
[1]85% of Unincorporated El Dorado County VMT per Capita (Residential) and VMT per Employee (Commercial Office)

Study Area Network Refinements

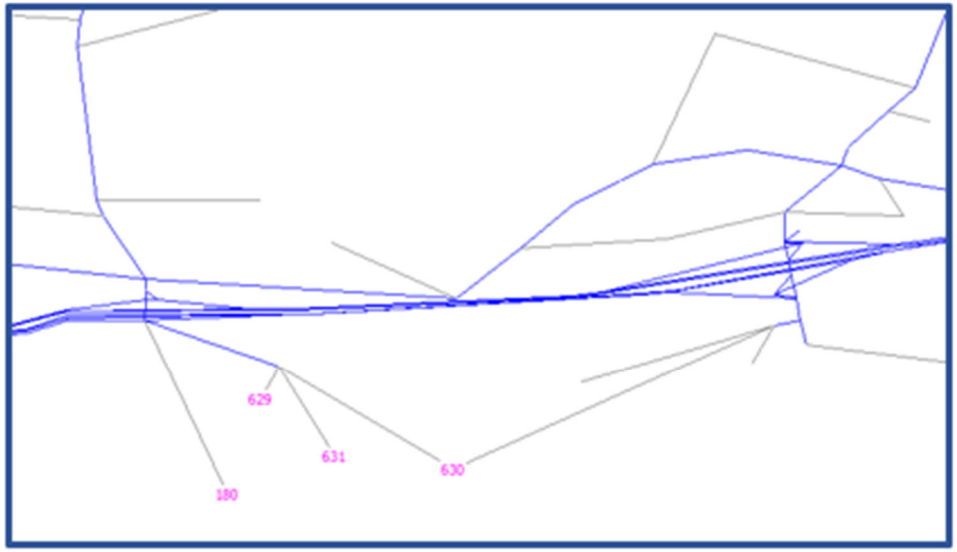
In addition to the model-wide network edits discussed above, the study area required refinement of the TAZ system to better reflect the project land use and geography. In the study area, the EDCTDM includes one TAZ that models the residential land use served by Marble Ridge Road and Marble Mountain Road (west of the VMVSP). Three new TAZs were added in the VMVSP to represent the project, one TAZ for each land use component (i.e., residential, commercial office, and commercial retail). Figure 3 shows the study area network with and without the network refinements.

Figure 3 – EDCTDM Study Area Network Refinements

Without Modification



With Modification



FEHR PEERS

The following steps outline the method we used to forecast VMT under existing and cumulative conditions:

- Existing Conditions (2018) – For existing conditions (i.e., baseline conditions), the base year model land use and transportation network were used to estimate baseline (2018) average VMT per capita and average VMT per employee for unincorporated El Dorado County.

  For existing plus project conditions, the project's land use was added to the modified model, increasing the base year population and employment. Project-generated average VMT per capita and VMT per employee were calculated.

- Cumulative Conditions (2040) – For cumulative conditions, the future year model was used to estimate cumulative (2040) average VMT per capita and average VMT per employee.

  For cumulative plus project conditions, the project's land use was added to the modified model, increasing the cumulative year population and employment. Project-generated average VMT per capita and VMT per employee were calculated.

VMT Calculation for Each TAZ

VMT is estimated using a three-step process. In the first step, travel distance between each pair of TAZs for using the loaded networks for the four model time periods (AM Peak Period, Midday Period, PM Peak Period, and Evening Period). Using the loaded network accounts for any increases in trip distance that may result from traffic congestion. In this process, the additional trip lengths associated with the model gateways are added to the trip length estimates. The distance of intrazonal trips is estimated as outlined above.

The second step of the process calculates the VMT for travel between each TAZ pair. The number of vehicle trips modeled between each TAZ pair is multiplied by the trip lengths to estimate the VMT associated with the travel between each TAZ pair for each time period. The VMT from the intrazonal trips is also included in the VMT estimates.

The third step estimates the home-based and home-based work VMT. These estimates are calculated by determining the percentage of vehicle productions and attractions by trip purpose and direction (departures and returns). These percentages are then applied to the total VMT estimates, to determine the VMT by trip purpose and direction. The home-based VMT summarizes VMT by the origin TAZ. The home-based work VMT summarizes VMT by the destination TAZ. The use of home-based and home-based work VMT allows independent analysis of residential and commercial project components.

Project Summary

Figure 4 shows the location of the project. As proposed, the project includes residential, commercial, agriculture, park and open space land use. **Table 4** summarizes the project's trip generating land uses.

Table 2: Village of Marble Valley Specific Plan Land Use			
Land Use			**Total**
Category		**Units**	
Residential	Single Family	Dwellings	2,735
	Multi-Family		501
	Total		3,236
Non-Residential	Office Park	Square Feet	375,000
	Village Commercial	Square Feet	100,000
	Agriculture Tourism	Acres	42
	Public School	Acres	35
	Village Park	Acres	47

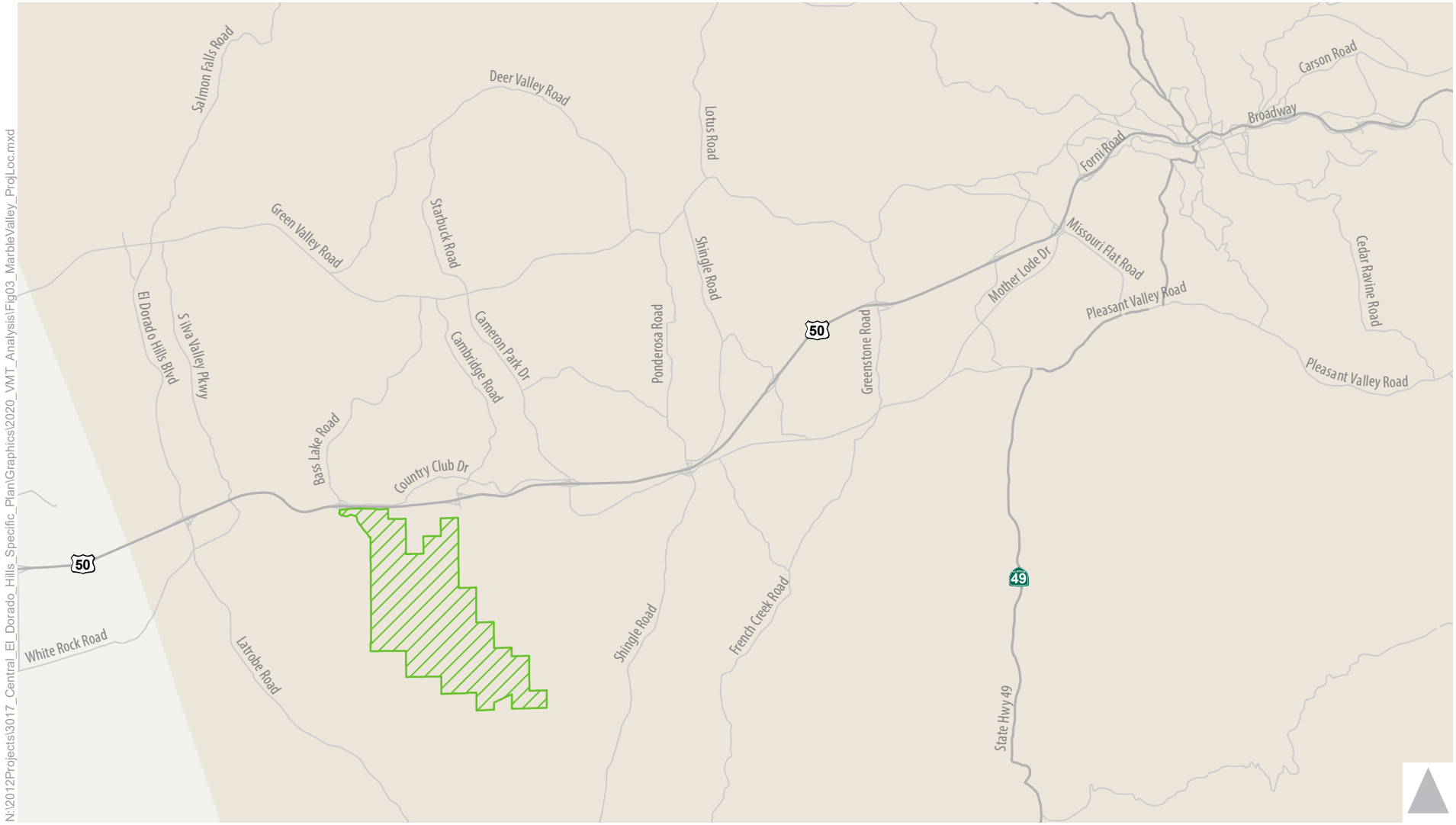


Figure 4

Project Location

VMT for Village of Marble Valley Specific Plan

Consistent with the County's VMT methodology, the residential, commercial office, and commercial retail land use components are analyzed separately. **Table 5** summarizes the VMT analysis for the residential component, **Table 6** summarizes the VMT analysis for the commercial office component, and **Table 7** summarizes the VMT for the commercial retail component. The VMT calculations for all scenarios are included in **Attachment A**.

Table 5: Village of Marble Valley Specific Plan's VMT – Residential Component				
Scenario	Analysis Geography	VMT	Total Population	VMT per Capita
2018 Baseline	Unincorporated El Dorado County	3,088,005	136,108	22.7
2018 Baseline Threshold (85% of Unincorporated El Dorado County Total Average VMT per Capita)				19.3
2018 Baseline Plus Project	Project Area	190,636	9,537	20.0
VMT Threshold Exceeded?				**Yes**
2040 Baseline	Unincorporated El Dorado County	3,102,953	181,914	17.1
2040 Baseline Threshold (85% of Unincorporated El Dorado County Total Average VMT per Capita)				14.5
2040 Baseline Plus Project	Project Area	139,252	9,537	14.6
VMT Threshold Exceeded?				**Yes**

Table 6: Village of Marble Valley Specific Plan's VMT – Commercial Office Component				
Scenario	Analysis Geography	VMT	Total Employment	VMT per Employee
2018 Baseline	Unincorporated El Dorado County	428,483	33,076	13.0
2018 Baseline Threshold (85% of Unincorporated El Dorado County Total Average VMT per Employee)				11.1
2018 Baseline Plus Project	Project Area	12,554	1,704	7.4
VMT Threshold Exceeded?				**No**
2040 Baseline	Unincorporated El Dorado County	675,594	56,413	12.0
2040 Baseline Threshold (85% of Unincorporated El Dorado County Total Average VMT per Employee)				10.2
2040 Baseline Plus Project	Project Area	11,775	1,704	6.9
VMT Threshold Exceeded?				**No**

Table 7: Village of Marble Valley Specific Plan's VMT – Commercial Retail Component		
Scenario	Analysis Geography	VMT
2018 Baseline Plus Project	Unincorporated El Dorado County	3,277,660
2018 Baseline Plus Project No Retail		3,282,876
Difference (With Retail – Without Retail)		-5,216
2018 Baseline Threshold (No Net Increase in VMT)		-
VMT Threshold Exceeded?		**No**
2040 Baseline Plus Project	Unincorporated El Dorado County	3,256,081
2040 Baseline Plus Project No Retail		3,260,265
Difference (With Retail – Without Retail)		-4,184
2040 Baseline Threshold (No Net Increase in VMT)		-
VMT Threshold Exceeded?		**No**

As shown, the project's VMT per Capita for the residential component would exceed the VMT threshold under existing and cumulative conditions. Therefore, the project's impact on VMT would be significant.

Mitigation

Shifting 25,000 square feet of commercial offices land use to commercial retail land use would mitigate the impact of the residential component of the project. The shift would result is about 125,000 square feet of commercial retail and about 350,000 square feet of commercial office land use.

Table 8 summarizes the VMT analysis for the residential with the mitigation outlined above. As shown, implementation of the proposed mitigation would reduce VMT per Capita for the residential component to a level less than established threshold of 85% of Unincorporated El Dorado County VMT per Capita. Therefore, with this mitigation the impact would be reduced to a less than significant level.

Table 8: Village of Marble Valley Specific Plan's VMT – Residential Component (With Mitigation)				
Scenario	Analysis Geography	VMT	Total Population	VMT per Capita
2018 Baseline	Unincorporated El Dorado County	3,088,005	136,108	22.7
2018 Baseline Threshold (85% of Unincorporated El Dorado County Total Average VMT per Capita)				19.3
2018 Baseline Plus Project	Project Area	181,281	9,537	19.0
			VMT Threshold Exceeded?	**No**
2040 Baseline	Unincorporated El Dorado County	3,102,953	181,914	17.1
2040 Baseline Threshold (85% of Unincorporated El Dorado County Total Average VMT per Capita)				14.5
2040 Baseline Plus Project	Project Area	135,502	9,537	14.2
			VMT Threshold Exceeded?	**No**

Attachment A

2018 Baseline Scenario

VMT Summary by Jurisdiction - 2018 Baseline Scenario

	VMT Estimates			VMT Efficiency Metrics			Population Details				
Jurisdiction	Total OD VMT	Home-based PA VMT	Home-based Work PA VMT	Total VMT per Service Population	Home-based VMT per Capita	Home-based Work VMT per Employee	Total Households	Total Population	Total Employment	Total Service Population	Persons Per Household
City of Placerville	297,880	69,463	90,185	20.9	10.6	11.8	2,914	6,581	7,639	14,220	2.26
Unincorporated El Dorado County	3,697,567	3,088,005	428,483	21.9	22.7	13.0	55,055	136,108	33,076	169,184	2.47
			Threshold (85% of Unincorporated El Dorado County)		19.3	11.0					

VMT Summary by Jurisdiction - 2018 Baseline Scenario

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
1.00	Unincorporated El Dorado County (Remainder Area)	0	4,166	2,626	327	46	75	16	91	46.0
2.00	Unincorporated El Dorado County (Remainder Area)	0	23,118	32,047	463	525	1,185	34	1,219	19.0
3.00	Unincorporated El Dorado County (Remainder Area)	0	2,949	3,745	42	34	88	0	88	33.6
4.00	Unincorporated El Dorado County (Remainder Area)	0	1,536	1,540	52	16	34	2	36	43.0
5.00	Unincorporated El Dorado County (Remainder Area)	0	2,866	4,046	27	33	73	0	73	39.5
6.00	Unincorporated El Dorado County (Remainder Area)	0	12,336	15,861	354	270	646	9	655	18.8
7.00	Unincorporated El Dorado County (Remainder Area)	0	25,856	33,452	993	516	1,119	71	1,190	21.7
8.00	Unincorporated El Dorado County (Remainder Area)	0	2,718	792	751	14	36	60	96	28.3
9.00	Unincorporated El Dorado County (Remainder Area)	0	28,499	33,395	1,708	482	1,240	117	1,357	21.0
10.00	Outside of County	0	0	0	0	0	0	0	0	-
11.00	Outside of County	0	0	0	0	0	0	0	0	-
12.00	Outside of County	0	39,353	30,977	1,872	663	1,741	96	1,837	21.4
13.00	Outside of County	0	31,126	35,939	676	775	1,995	0	1,995	15.6
14.00	Outside of County	0	64,157	72,184	1,543	1,502	4,068	32	4,100	15.6
15.00	Outside of County	0	497	523	10	10	23	0	23	22.1
16.00	Outside of County	0	56,270	8,955	7,530	149	378	434	812	69.3
17.00	Outside of County	0	0	0	0	0	0	0	0	-
18.00	Outside of County	0	1,564	620	67	41	116	0	116	13.5
19.00	Outside of County	0	0	0	0	0	0	0	0	-
20.00	Outside of County	0	219	18	118	1	1	5	6	36.5
21.00	Outside of County	0	5,220	50	2,538	1	2	112	114	45.8
22.00	Outside of County	0	2,239	269	579	2	6	23	29	77.2
23.00	Outside of County	0	58,930	23,741	6,314	101	273	244	517	114.1
24.00	Outside of County	0	48	30	1	1	1	0	1	47.5
25.00	Outside of County	0	0	0	0	0	0	0	0	-
26.00	Outside of County	0	0	0	0	0	0	0	0	-
27.00	Outside of County	0	1,320	266	500	2	6	22	28	47.1
28.00	Outside of County	0	12,524	14,738	377	123	332	6	338	37.0
29.00	Outside of County	0	7,845	9,174	242	72	192	5	197	39.8
30.00	Outside of County	0	6,050	0	3,192	0	0	133	133	45.5
31.00	Outside of County	0	5,557	4,119	1,039	44	94	45	139	39.9
32.00	Outside of County	0	24,953	6,831	622	676	1,526	0	1,526	16.3
33.00	Outside of County	0	0	0	0	0	0	0	0	-
34.00	Outside of County	0	8,755	9,498	584	75	191	16	207	42.3
35.00	Outside of County	0	0	0	0	0	0	0	0	-
36.00	Outside of County	0	0	0	0	0	0	0	0	-
37.00	Outside of County	0	5,042	0	2,670	0	0	178	178	28.3
38.00	Outside of County	0	0	0	0	0	0	0	0	-
39.00	Outside of County	0	24,310	22,457	3,316	666	1,569	227	1,796	13.5
40.00	Outside of County	0	112,464	25,842	18,883	916	2,079	1,839	3,918	28.7
41.00	Outside of County	0	30,906	26,574	3,958	544	1,271	203	1,474	21.0
42.00	Outside of County	0	0	0	0	0	0	0	0	-
43.00	Outside of County	0	53,527	63,304	1,203	828	2,045	0	2,045	26.2
44.00	Outside of County	0	79,459	76,876	3,256	1,069	2,614	95	2,709	29.3
45.00	Outside of County	0	101,352	24,241	14,670	906	2,057	1,357	3,414	29.7
46.00	Outside of County	0	0	0	0	0	0	0	0	-
47.00	Outside of County	0	100,800	0	42,751	0	0	2,398	2,398	42.0
48.00	Outside of County	0	71,735	71,936	3,413	1,203	3,068	121	3,189	22.5
49.00	Outside of County	0	152,679	0	78,101	0	0	4,642	4,642	32.9
50.00	Outside of County	0	120,870	85,622	19,287	1,025	2,430	826	3,256	37.1
51.00	Outside of County	0	127,937	69,592	18,217	1,768	4,253	1,237	5,490	23.3
52.00	Outside of County	0	45,479	25,262	4,454	297	667	240	907	50.1
53.00	Outside of County	0	113,884	87,730	8,465	1,335	3,452	377	3,829	29.7
54.00	Outside of County	0	93,497	36,350	38,701	476	1,153	1,827	2,980	31.4
55.00	Outside of County	0	82,632	38,237	12,452	675	1,583	800	2,383	34.7
56.00	Outside of County	0	34,972	40,102	993	820	1,933	4	1,937	18.1
57.00	Outside of County	0	162,092	0	113,336	0	0	7,375	7,375	22.0
58.00	Outside of County	0	43,751	24,397	6,802	465	1,160	388	1,548	28.3
59.00	Outside of County	0	426	110	173	2	4	9	13	32.7
60.00	Outside of County	0	205,449	17,434	103,017	238	478	4,236	4,714	43.6
61.00	Outside of County	0	277,015	193,125	22,414	2,205	5,227	797	6,024	46.0
62.00	Outside of County	0	55,666	318	26,745	4	8	1,150	1,158	48.1
63.00	Outside of County	0	114,425	18,521	51,559	340	756	3,083	3,839	29.8
64.00	Outside of County	0	79,435	60,433	11,462	865	2,156	560	2,716	29.2
65.00	Outside of County	0	10,503	11,624	218	136	338	0	338	31.1
66.00	Outside of County	0	62,374	51,041	4,282	826	1,950	172	2,122	29.4
67.00	Outside of County	0	10,409	0	2,797	0	0	178	178	58.5
68.00	Outside of County	0	55,078	32,867	11,777	616	1,314	679	1,993	27.6
69.00	Outside of County	0	143,872	90,934	38,058	1,588	4,122	2,320	6,442	22.3
70.00	Outside of County	0	210,170	801	126,672	0	0	6,956	6,956	30.2
71.00	Outside of County	0	107,548	111,353	4,863	1,231	3,088	121	3,209	33.5
72.00	Outside of County	0	247,277	358	132,064	0	0	5,133	5,133	48.2
73.00	Outside of County	0	122,122	0	80,001	0	0	5,627	5,627	21.7
74.00	Outside of County	0	176,117	21,981	81,378	435	1,022	4,728	5,750	30.6
75.00	Outside of County	0	106,895	77,981	27,259	1,936	4,401	1,866	6,267	17.1
76.00	Outside of County	0	42,176	23,721	5,013	508	1,352	297	1,649	25.6
77.00	Outside of County	0	160,532	79,023	34,071	1,155	2,810	1,659	4,469	35.9
78.00	Outside of County	0	88,858	0	23,882	0	0	1,567	1,567	56.7

VMT Summary by Jurisdiction - 2018 Baseline Scenario

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
79.00	Outside of County	0	971	0	0	0	0	20	20	48.6
80.00	Outside of County	0	50,636	0	23,931	0	0	1,410	1,410	35.9
81.00	Outside of County	0	160,628	0	83,068	0	0	4,951	4,951	32.4
82.00	Outside of County	0	56,271	0	29,838	0	0	1,787	1,787	31.5
83.00	Outside of County	0	0	0	0	0	0	0	0	-
84.00	Outside of County	0	64,935	48,607	6,599	1,226	2,817	405	3,222	20.2
85.00	Outside of County	0	71,715	60,548	4,739	1,295	3,246	253	3,499	20.5
86.00	Outside of County	0	111,986	74,912	11,544	1,968	4,487	754	5,241	21.4
87.00	Outside of County	0	102,508	66,622	12,953	2,114	4,344	800	5,144	19.9
88.00	Outside of County	0	86,778	48,055	11,980	1,099	2,679	762	3,441	25.2
89.00	Outside of County	0	11,255	0	4,682	0	0	293	293	38.4
90.00	Outside of County	0	53,226	0	10,922	0	0	592	592	89.9
91.00	Outside of County	0	123,481	16,293	50,210	383	961	4,100	5,061	24.4
92.00	Outside of County	0	59,947	56,565	3,275	1,139	2,709	141	2,850	21.0
93.00	Outside of County	0	0	0	0	0	0	0	0	-
94.00	Outside of County	0	432	480	9	6	15	0	15	28.8
95.00	Outside of County	0	924	0	440	0	0	27	27	34.2
96.00	Outside of County	0	343	0	174	0	0	12	12	28.6
97.00	Outside of County	0	110	103	2	2	4	0	4	27.5
98.00	Outside of County	0	75,981	352	27,272	10	25	2,289	2,314	32.8
99.00	Outside of County	0	49,798	27,047	11,872	791	1,944	958	2,902	17.2
100.00	Outside of County	0	6,021	7,034	128	84	203	0	203	29.6
101.00	Outside of County	0	12,099	0	6,018	0	0	320	320	37.8
102.00	Outside of County	0	6,000	5,243	996	51	153	53	206	29.1
103.00	Outside of County	0	58,984	68,339	1,381	910	2,200	0	2,200	26.8
104.00	Outside of County	0	0	0	0	0	0	0	0	-
105.00	Outside of County	0	0	0	0	0	0	0	0	-
106.00	Outside of County	0	2,868	0	1,439	0	0	70	70	41.0
107.00	Outside of County	0	86,625	0	45,771	0	0	3,135	3,135	27.6
108.00	Outside of County	0	437	0	202	0	0	15	15	29.1
109.00	Outside of County	0	18,922	0	4,255	0	0	238	238	79.5
110.00	Outside of County	0	63,976	8,774	28,943	205	426	1,610	2,036	31.4
111.00	Outside of County	0	136,717	12,325	24,963	350	728	1,151	1,879	72.8
112.00	Outside of County	0	195,988	38,217	41,788	747	1,946	2,117	4,063	48.2
113.00	Outside of County	0	88,904	0	47,000	0	0	4,022	4,022	22.1
114.00	Outside of County	0	40,814	30,283	7,763	770	1,950	660	2,610	15.6
115.00	Outside of County	0	0	0	0	0	0	0	0	-
116.00	Outside of County	0	0	0	0	0	0	0	0	-
117.00	Outside of County	0	87,124	32,807	23,801	401	1,031	1,492	2,523	34.5
118.00	Outside of County	0	89,463	81,373	3,775	2,313	5,898	187	6,085	14.7
119.00	Outside of County	0	171,753	7,945	75,523	214	522	6,545	7,067	24.3
120.00	Outside of County	0	203,382	0	58,569	0	0	4,131	4,131	49.2
121.00	Outside of County	0	166,199	57,288	22,361	1,642	4,261	1,724	5,985	27.8
122.00	Outside of County	0	67,095	20,235	12,428	619	1,530	1,071	2,601	25.8
123.00	Outside of County	0	52,834	7,535	10,726	200	529	855	1,384	38.2
124.00	Outside of County	0	80,923	55,078	5,562	1,240	2,628	328	2,956	27.4
125.00	Outside of County	0	59,993	10,940	9,293	389	801	781	1,582	37.9
126.00	Outside of County	0	15,688	4,356	1,784	136	279	129	408	38.4
127.00	Outside of County	0	38,513	34,433	2,025	800	1,693	117	1,810	21.3
128.00	Outside of County	0	85,653	40,306	11,052	999	2,062	767	2,829	30.3
129.00	Outside of County	0	42,715	46,640	819	994	2,246	0	2,246	19.0
130.00	Outside of County	0	31,447	10,020	4,065	369	740	416	1,156	27.2
131.00	Outside of County	0	75,374	20,584	13,616	607	1,234	1,278	2,512	30.0
132.00	Outside of County	0	33,903	20,607	3,968	407	894	260	1,154	29.4
133.00	Outside of County	0	132,673	63,999	14,735	2,087	5,211	1,475	6,686	19.8
134.00	Outside of County	0	70,311	32,120	18,482	1,075	2,460	1,492	3,952	17.8
135.00	Outside of County	0	43,514	0	23,772	0	0	2,114	2,114	20.6
136.00	Outside of County	0	31,862	28,679	1,647	669	1,669	82	1,751	18.2
137.00	Outside of County	0	138,587	104,455	9,379	2,349	6,735	673	7,408	18.7
138.00	El Dorado Diamond Springs	0	5,531	5,338	430	161	367	25	392	14.1
139.00	El Dorado Diamond Springs	0	3,994	1,768	670	62	135	55	190	21.0
140.00	El Dorado Diamond Springs	0	24,371	265	5,033	10	27	383	410	59.4
141.00	Unincorporated El Dorado County (Remainder Area)	0	2,082	1,974	80	21	49	2	51	41.0
142.00	Unincorporated El Dorado County (Remainder Area)	0	7,364	7,976	178	157	353	0	353	20.9
143.00	Unincorporated El Dorado County (Remainder Area)	0	3,601	3,742	133	93	209	4	213	16.9
144.00	Unincorporated El Dorado County (Remainder Area)	0	3,896	4,004	290	74	186	19	205	19.0
145.00	Unincorporated El Dorado County (Remainder Area)	0	802	837	22	30	69	0	69	11.7
146.00	El Dorado Diamond Springs	0	3,810	1,778	632	64	145	51	196	19.5
147.00	El Dorado Diamond Springs	0	4,298	4,544	135	159	359	0	359	12.0
148.00	Outside of County	0	189,218	257,141	6,738	2,250	5,293	137	5,430	34.8
149.00	Shingle Springs	0	6,891	1,697	1,466	37	98	112	210	32.8
150.00	Unincorporated El Dorado County (Remainder Area)	0	7,722	8,487	225	109	260	3	263	29.4
151.00	Unincorporated El Dorado County (Remainder Area)	0	1,453	2,003	20	23	67	0	67	21.6
152.00	Shingle Springs	0	9,916	6,134	1,454	122	315	99	414	24.0
153.00	Unincorporated El Dorado County (Remainder Area)	0	6,431	6,651	217	178	388	5	393	16.4
154.00	Unincorporated El Dorado County (Remainder Area)	0	3,340	3,259	235	84	196	16	212	15.7
155.00	Shingle Springs	0	2,686	3,144	57	62	161	0	161	16.6
156.00	Unincorporated El Dorado County (Remainder Area)	0	2,329	2,755	39	27	67	0	67	34.6

VMT Summary by Jurisdiction - 2018 Baseline Scenario

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
157.00	El Dorado Hills	0	11,314	14,582	188	274	807	0	807	14.0
158.00	Cameron Park	0	22,047	24,487	1,060	598	1,373	72	1,445	15.3
159.00	Cameron Park	0	12,635	16,235	239	340	878	1	879	14.4
160.00	Shingle Springs	0	7,853	9,562	164	194	501	0	501	15.7
161.00	El Dorado Hills	0	6,106	7,825	93	105	283	0	283	21.6
162.00	El Dorado Hills	0	71,569	99,177	978	1,503	4,414	0	4,414	16.2
163.00	El Dorado Hills	0	350	364	39	7	21	4	25	14.2
164.00	El Dorado Hills	0	27,784	0	14,365	0	0	1,232	1,232	22.6
165.00	El Dorado Hills	0	16,363	19,623	373	373	997	0	997	16.4
166.00	Outside of County	0	41,447	42,198	1,373	749	1,892	49	1,941	21.4
167.00	El Dorado Hills	0	50,123	52,254	2,138	1,297	2,904	55	2,959	16.9
168.00	El Dorado Hills	0	30,546	36,220	944	1,125	2,519	9	2,528	12.1
169.00	El Dorado Hills	0	102,894	154	21,197	0	0	1,688	1,688	61.0
170.00	El Dorado Hills	0	27,560	0	15,243	0	0	1,357	1,357	20.3
171.00	El Dorado Hills	0	14,234	12,753	758	441	790	20	810	17.6
172.00	El Dorado Hills	0	8,204	0	1,963	0	0	168	168	48.8
173.00	El Dorado Hills	0	29,687	0	6,376	0	0	547	547	54.3
174.00	Unincorporated El Dorado County (Remainder Area)	0	2,218	1,539	249	15	37	11	48	45.9
175.00	Unincorporated El Dorado County (Remainder Area)	0	955	876	97	11	26	5	31	30.6
176.00	Unincorporated El Dorado County (Remainder Area)	0	2,048	2,324	41	29	69	0	69	29.6
177.00	Unincorporated El Dorado County (Remainder Area)	0	827	702	119	10	25	7	32	25.9
178.00	Unincorporated El Dorado County (Remainder Area)	0	2,085	2,421	40	30	77	0	77	27.0
179.00	Unincorporated El Dorado County (Remainder Area)	0	10	17	0	1	3	0	3	3.7
180.00	El Dorado Hills	0	3,243	3,924	54	58	149	0	149	21.7
181.00	El Dorado Hills	0	1,418	8	645	1	3	58	61	23.4
182.00	Cameron Park	0	51,882	68,033	795	1,186	3,202	0	3,202	16.2
183.00	Unincorporated El Dorado County (Remainder Area)	0	6,525	7,645	127	152	355	0	355	18.4
184.00	Cameron Park	0	28,763	20,492	3,325	357	964	300	1,264	22.8
185.00	Cameron Park	0	5,401	6,636	94	149	342	0	342	15.8
186.00	Cameron Park	0	647	102	236	3	7	28	35	18.5
187.00	Cameron Park	0	10,281	9,793	1,023	239	549	85	634	16.2
188.00	Cameron Park	0	7,327	7,048	803	188	432	69	501	14.6
189.00	Unincorporated El Dorado County (Remainder Area)	0	2,895	3,688	44	37	104	0	104	28.0
190.00	Unincorporated El Dorado County (Remainder Area)	0	11,290	14,830	175	237	663	0	663	17.0
191.00	El Dorado Hills	0	824	1,100	11	19	53	0	53	15.5
192.00	El Dorado Hills	0	1,093	1,444	15	25	70	0	70	15.7
193.00	El Dorado Hills	0	8,893	4,380	2,565	100	253	246	499	17.8
194.00	El Dorado Hills	0	18,209	23,760	280	439	1,285	0	1,285	14.2
195.00	El Dorado Hills	0	1,605	531	184	10	26	14	40	40.6
196.00	Outside of County	0	45,981	51,299	1,506	923	2,503	82	2,585	17.8
197.00	El Dorado Hills	0	3,954	4,957	65	86	219	0	219	18.0
198.00	El Dorado Hills	0	58,474	46,936	4,592	887	2,482	453	2,935	19.9
199.00	El Dorado Hills	0	11,088	3,692	1,539	62	173	120	293	37.8
200.00	El Dorado Hills	0	3,335	333	740	7	18	67	85	39.3
201.00	El Dorado Hills	0	13,472	8,479	2,757	150	439	301	740	18.2
202.00	El Dorado Hills	0	41,829	41,531	2,356	737	2,062	199	2,261	18.5
203.00	El Dorado Hills	0	52,615	66,781	1,839	1,043	3,061	139	3,200	16.4
204.00	El Dorado Hills	0	18,761	20,036	597	362	1,067	41	1,108	16.9
205.00	El Dorado Hills	0	628	0	288	0	0	30	30	20.9
206.00	El Dorado Hills	0	2,124	2,756	30	52	153	0	153	13.9
207.00	El Dorado Hills	0	15,051	19,923	231	296	869	0	869	17.3
208.00	Unincorporated El Dorado County (Remainder Area)	0	412	558	5	9	26	0	26	15.6
209.00	El Dorado Hills	0	2,999	3,557	172	55	161	14	175	17.1
210.00	El Dorado Hills	0	5,743	7,581	87	125	366	0	366	15.7
211.00	Unincorporated El Dorado County (Remainder Area)	0	167	231	2	4	11	0	11	15.0
212.00	El Dorado Hills	0	1,871	2,523	25	35	103	0	103	18.2
213.00	Unincorporated El Dorado County (Remainder Area)	0	6,812	8,992	101	116	323	0	323	21.1
214.00	Unincorporated El Dorado County (Remainder Area)	0	686	922	10	8	19	0	19	35.4
215.00	El Dorado Hills	0	6,138	8,031	95	113	316	0	316	19.4
216.00	Unincorporated El Dorado County (Remainder Area)	0	400	520	5	5	12	0	12	33.1
217.00	Unincorporated El Dorado County (Remainder Area)	0	740	957	10	11	31	0	31	24.0
218.00	Unincorporated El Dorado County (Remainder Area)	0	1,723	2,237	25	28	78	0	78	22.0
219.00	Unincorporated El Dorado County (Remainder Area)	0	4,456	2,399	1,004	28	78	77	155	28.8
220.00	Unincorporated El Dorado County (Remainder Area)	0	581	762	8	9	25	0	25	23.2
221.00	El Dorado Hills	0	43,247	59,070	587	876	2,359	0	2,359	18.3
222.00	Cameron Park	0	2,699	1,423	256	26	71	26	97	28.0
223.00	Cameron Park	0	4,072	5,524	52	103	279	0	279	14.6
224.00	Unincorporated El Dorado County (Remainder Area)	0	5,457	6,394	348	95	258	29	287	19.0
225.00	Unincorporated El Dorado County (Remainder Area)	0	11,249	7,664	978	92	270	79	349	32.2
226.00	Cameron Park	0	10,028	8,755	771	131	384	76	460	21.8
227.00	Cameron Park	0	182	177	13	5	12	2	14	12.9
228.00	Cameron Park	0	23,398	31,104	509	705	1,703	20	1,723	13.6
229.00	El Dorado Hills	0	405	556	4	9	24	0	24	16.7
230.00	El Dorado Hills	0	590	809	6	12	35	0	35	16.7
231.00	Unincorporated El Dorado County (Remainder Area)	0	1,019	332	239	5	15	28	43	23.9
232.00	Unincorporated El Dorado County (Remainder Area)	0	2,109	2,821	28	33	92	0	92	23.0
233.00	Cameron Park	0	6,653	3,846	768	92	211	101	312	21.3
234.00	Cameron Park	0	47,144	41,546	4,548	1,004	2,306	587	2,893	16.3

VMT Summary by Jurisdiction - 2018 Baseline Scenario

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235.00	Cameron Park	0	33,832	44,754	479	861	2,214	0	2,214	15.3
236.00	Cameron Park	0	17,939	24,296	298	468	1,204	9	1,213	14.8
237.00	Cameron Park	0	2,846	3,551	47	75	172	0	172	16.5
238.00	Cameron Park	0	15,143	13,696	2,017	280	676	199	875	17.3
239.00	Cameron Park	0	1,950	1,618	135	32	87	16	103	19.0
240.00	Unincorporated El Dorado County (Remainder Area)	0	7,287	9,730	107	127	345	0	345	21.1
241.00	Cameron Park	0	6,848	9,117	105	164	445	2	447	15.3
242.00	Cameron Park	0	806	1,102	9	22	60	0	60	13.5
243.00	Cameron Park	0	2,409	2,931	120	52	141	13	154	15.6
244.00	Unincorporated El Dorado County (Remainder Area)	0	1,391	1,801	23	22	57	0	57	24.6
245.00	Unincorporated El Dorado County (Remainder Area)	0	842	1,066	11	10	29	0	29	29.1
246.00	Unincorporated El Dorado County (Remainder Area)	0	4,452	6,056	59	63	182	0	182	24.4
247.00	Unincorporated El Dorado County (Remainder Area)	0	14,550	16,665	351	296	646	0	646	22.5
248.00	Unincorporated El Dorado County (Remainder Area)	0	10,727	13,056	226	185	441	0	441	24.3
249.00	Unincorporated El Dorado County (Remainder Area)	0	1,911	2,086	39	27	59	0	59	32.4
250.00	Unincorporated El Dorado County (Remainder Area)	0	3,223	3,854	63	53	123	0	123	26.2
251.00	Unincorporated El Dorado County (Remainder Area)	0	4,465	5,223	91	88	224	0	224	20.0
252.00	Unincorporated El Dorado County (Remainder Area)	0	20,232	24,935	422	434	1,130	0	1,130	17.9
253.00	Unincorporated El Dorado County (Remainder Area)	0	8,637	10,809	166	147	403	0	403	21.4
254.00	Unincorporated El Dorado County (Remainder Area)	0	6,155	7,315	128	116	295	0	295	20.9
255.00	Cameron Park	0	17,028	0	5,087	0	0	426	426	40.0
256.00	Cameron Park	0	46,408	1,915	13,815	47	121	1,042	1,163	39.9
257.00	Shingle Springs	0	30,259	6,774	11,179	153	389	960	1,349	22.4
258.00	Unincorporated El Dorado County (Remainder Area)	0	1,485	1,749	51	21	58	2	60	25.0
259.00	Unincorporated El Dorado County (Remainder Area)	0	1,819	2,262	31	30	78	0	78	23.3
260.00	Shingle Springs	0	5,677	58	1,817	2	4	146	150	37.7
261.00	Shingle Springs	0	15,334	4,173	3,626	92	252	282	534	28.7
262.00	Shingle Springs	0	12,901	4,871	3,014	121	308	238	546	23.6
263.00	Shingle Springs	0	6,135	4,995	534	108	296	35	331	18.5
264.00	Shingle Springs	0	4,761	2,290	629	50	137	45	182	26.2
265.00	Unincorporated El Dorado County (Remainder Area)	0	2,408	2,965	44	45	117	0	117	20.6
266.00	Unincorporated El Dorado County (Remainder Area)	0	2,362	2,170	117	42	92	4	96	24.7
267.00	Unincorporated El Dorado County (Remainder Area)	0	5,496	6,891	127	129	336	0	336	16.4
268.00	Unincorporated El Dorado County (Remainder Area)	0	3,278	3,761	133	69	180	6	186	17.7
269.00	Unincorporated El Dorado County (Remainder Area)	0	9,325	10,939	228	204	516	1	517	18.0
270.00	Unincorporated El Dorado County (Remainder Area)	0	2,473	3,221	42	44	113	0	113	21.8
271.00	Unincorporated El Dorado County (Remainder Area)	0	8,088	10,053	199	150	379	5	384	21.0
272.00	Unincorporated El Dorado County (Remainder Area)	0	6,800	7,760	363	131	347	23	370	18.4
273.00	Unincorporated El Dorado County (Remainder Area)	0	7,904	10,189	255	134	391	12	403	19.6
274.00	Unincorporated El Dorado County (Remainder Area)	0	15,445	13,859	1,331	233	618	99	717	21.6
275.00	Unincorporated El Dorado County (Remainder Area)	0	15,495	18,287	458	321	828	13	841	18.4
276.00	Cameron Park	0	9,014	10,844	268	224	541	12	553	16.3
277.00	Cameron Park	0	6,258	7,932	106	161	416	0	416	15.1
278.00	Unincorporated El Dorado County (Remainder Area)	0	5,210	6,797	84	91	247	0	247	21.1
279.00	Unincorporated El Dorado County (Remainder Area)	0	2,678	3,507	42	45	122	0	122	21.9
280.00	Unincorporated El Dorado County (Remainder Area)	0	1,778	2,200	33	37	98	0	98	18.1
281.00	Unincorporated El Dorado County (Remainder Area)	0	3,869	3,572	543	59	156	36	192	20.1
282.00	Unincorporated El Dorado County (Remainder Area)	0	1,747	2,152	33	39	103	0	103	16.9
283.00	Shingle Springs	0	16,088	3,776	2,073	0	0	161	161	99.9
284.00	Shingle Springs	0	1,621	1,091	305	25	65	25	90	18.1
285.00	Unincorporated El Dorado County (Remainder Area)	0	5,130	1,491	887	12	26	66	92	55.5
286.00	Unincorporated El Dorado County (Remainder Area)	0	1,776	2,318	29	36	95	0	95	18.6
287.00	Unincorporated El Dorado County (Remainder Area)	0	1,717	2,179	29	34	88	0	88	19.6
288.00	Unincorporated El Dorado County (Remainder Area)	0	2,632	3,324	46	51	135	0	135	19.5
289.00	Unincorporated El Dorado County (Remainder Area)	0	360	514	4	8	23	0	23	15.4
290.00	Unincorporated El Dorado County (Remainder Area)	0	2,416	3,228	37	44	129	0	129	18.8
291.00	Unincorporated El Dorado County (Remainder Area)	0	9,922	12,933	181	188	463	0	463	21.4
292.00	Unincorporated El Dorado County (Remainder Area)	0	4,576	6,311	64	72	210	0	210	21.8
293.00	Unincorporated El Dorado County (Remainder Area)	0	1,230	1,276	32	34	77	0	77	15.9
294.00	Unincorporated El Dorado County (Remainder Area)	0	4,021	4,645	94	97	247	0	247	16.3
295.00	Unincorporated El Dorado County (Remainder Area)	0	148,908	5,014	26,719	110	284	1,491	1,775	83.9
296.00	El Dorado Diamond Springs	0	9,633	6,665	855	117	305	56	361	26.7
297.00	Unincorporated El Dorado County (Remainder Area)	0	2,430	3,140	57	70	182	0	182	13.3
298.00	Unincorporated El Dorado County (Remainder Area)	0	3,313	3,810	75	79	206	0	206	16.1
299.00	Unincorporated El Dorado County (Remainder Area)	0	5,090	6,062	106	106	268	0	268	19.0
300.00	Unincorporated El Dorado County (Remainder Area)	0	1,197	1,390	26	28	71	0	71	16.9
301.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	1	2	0	2	0.1
302.00	Unincorporated El Dorado County (Remainder Area)	0	3,967	2,475	500	57	130	33	163	24.4
303.00	El Dorado Diamond Springs	0	3,470	3,661	91	106	231	0	231	15.0
304.00	El Dorado Diamond Springs	0	6,356	379	2,386	12	27	224	251	25.3
305.00	El Dorado Diamond Springs	0	7,603	0	3,158	1	2	283	285	26.7
306.00	El Dorado Diamond Springs	0	1,629	375	629	10	22	55	77	21.2
307.00	El Dorado Diamond Springs	0	617	494	38	16	36	2	38	16.2
308.00	El Dorado Diamond Springs	0	272	273	15	11	25	1	26	10.5
309.00	El Dorado Diamond Springs	0	533	434	52	14	32	4	36	14.8
310.00	El Dorado Diamond Springs	0	4,146	794	1,294	26	59	122	181	22.9
311.00	El Dorado Diamond Springs	0	8,533	1,197	2,120	38	87	158	245	34.9
312.00	El Dorado Diamond Springs	0	870	891	49	31	70	3	73	11.9

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313.00	El Dorado Diamond Springs	0	23,390	4,175	6,912	38	99	506	605	38.7
314.00	El Dorado Diamond Springs	0	2,981	3,093	154	81	206	8	214	13.9
315.00	Outside of County	0	0	0	0	0	0	0	0	-
316.00	El Dorado Diamond Springs	0	342	346	9	13	30	0	30	11.5
317.00	El Dorado Diamond Springs	0	206	210	5	8	18	0	18	11.3
318.00	Unincorporated El Dorado County (Remainder Area)	0	4,322	4,680	137	128	326	2	328	13.2
319.00	El Dorado Diamond Springs	0	1,220	1,220	91	38	99	6	105	11.6
320.00	Unincorporated El Dorado County (Remainder Area)	0	5,096	2,179	537	18	44	39	83	61.1
321.00	Unincorporated El Dorado County (Remainder Area)	0	5,291	6,703	102	104	256	0	256	20.6
322.00	Unincorporated El Dorado County (Remainder Area)	0	7,460	8,020	553	153	387	33	420	17.8
323.00	Unincorporated El Dorado County (Remainder Area)	0	2,846	3,454	85	51	129	4	133	21.4
324.00	Unincorporated El Dorado County (Remainder Area)	0	3,638	4,777	61	64	165	0	165	22.1
325.00	Unincorporated El Dorado County (Remainder Area)	0	706	878	14	16	39	0	39	17.9
326.00	Unincorporated El Dorado County (Remainder Area)	0	2,171	2,731	54	49	121	1	122	17.8
327.00	Placerville	0	1,704	2,003	39	40	101	0	101	16.9
328.00	Unincorporated El Dorado County (Remainder Area)	0	847	998	18	19	48	0	48	17.7
329.00	Placerville	0	4,862	5,451	124	139	317	0	317	15.3
330.00	Unincorporated El Dorado County (Remainder Area)	0	2,701	3,124	65	73	184	0	184	14.7
331.00	Unincorporated El Dorado County (Remainder Area)	0	5,824	7,134	116	110	274	0	274	21.3
332.00	Unincorporated El Dorado County (Remainder Area)	0	1,541	1,805	36	47	104	0	104	14.8
333.00	Unincorporated El Dorado County (Remainder Area)	0	4,529	5,675	86	91	226	0	226	20.1
334.00	Unincorporated El Dorado County (Remainder Area)	0	3,809	1,175	1,315	26	58	110	168	22.7
335.00	Unincorporated El Dorado County (Remainder Area)	0	3,013	3,285	124	77	165	5	170	17.7
336.00	Unincorporated El Dorado County (Remainder Area)	0	1,225	1,475	25	30	70	0	70	17.4
337.00	Unincorporated El Dorado County (Remainder Area)	0	9,197	7,630	869	121	302	62	364	25.3
338.00	Unincorporated El Dorado County (Remainder Area)	0	14,133	17,909	370	322	831	14	845	16.7
339.00	Unincorporated El Dorado County (Remainder Area)	0	8,581	12,365	118	188	410	0	410	20.9
340.00	Unincorporated El Dorado County (Remainder Area)	0	6,896	8,586	224	93	205	14	219	31.5
341.00	Unincorporated El Dorado County (Remainder Area)	0	1,489	1,918	86	31	71	8	79	18.9
342.00	Unincorporated El Dorado County (Remainder Area)	0	2,620	3,271	48	48	124	0	124	21.2
343.00	Unincorporated El Dorado County (Remainder Area)	0	3,485	4,097	63	53	116	0	116	30.1
344.00	Unincorporated El Dorado County (Remainder Area)	0	3,762	4,481	68	55	120	0	120	31.3
345.00	Unincorporated El Dorado County (Remainder Area)	0	1,796	1,949	35	29	63	0	63	28.4
346.00	Unincorporated El Dorado County (Remainder Area)	0	1,272	1,399	24	22	49	0	49	25.7
347.00	Unincorporated El Dorado County (Remainder Area)	0	2,911	3,675	48	42	108	0	108	26.9
348.00	Unincorporated El Dorado County (Remainder Area)	0	2,799	2,993	63	49	110	0	110	25.4
349.00	Unincorporated El Dorado County (Remainder Area)	0	6,297	8,014	252	83	191	18	209	30.1
350.00	Unincorporated El Dorado County (Remainder Area)	0	1,179	1,682	17	22	48	0	48	24.5
351.00	Unincorporated El Dorado County (Remainder Area)	0	1,305	1,880	16	23	50	0	50	26.0
352.00	Unincorporated El Dorado County (Remainder Area)	0	1,857	2,624	24	29	63	0	63	29.3
353.00	Unincorporated El Dorado County (Remainder Area)	0	9,027	13,265	99	167	365	1	366	24.7
354.00	Unincorporated El Dorado County (Remainder Area)	0	5,501	3,517	746	53	116	77	193	28.5
355.00	Placerville	1	14,292	6,555	2,957	241	550	244	794	18.0
356.00	Placerville	1	2,499	2,652	73	91	195	0	195	12.8
357.00	Unincorporated El Dorado County (Remainder Area)	0	4,889	3,827	367	89	209	21	230	21.3
358.00	Placerville	0	5,870	2,945	1,187	81	190	98	288	20.4
359.00	Unincorporated El Dorado County (Remainder Area)	0	4,285	5,085	93	105	254	0	254	16.9
360.00	Unincorporated El Dorado County (Remainder Area)	0	5,338	5,780	239	98	237	10	247	21.6
361.00	Placerville	1	17,728	10,267	4,156	458	938	392	1,330	13.3
362.00	Placerville	1	46,119	5,945	10,928	252	591	876	1,467	31.4
363.00	Unincorporated El Dorado County (Remainder Area)	0	327	343	9	13	31	0	31	10.6
364.00	Placerville	0	4,044	3,540	416	138	328	30	358	11.3
365.00	El Dorado Diamond Springs	0	10,889	8,653	1,046	322	722	71	793	13.7
366.00	El Dorado Diamond Springs	0	380	274	42	15	31	4	35	10.8
367.00	El Dorado Diamond Springs	0	4,054	0	1,960	0	0	197	197	20.6
368.00	El Dorado Diamond Springs	0	1,589	1,730	48	68	149	0	149	10.7
369.00	El Dorado Diamond Springs	0	5,670	5,750	283	228	507	13	520	10.9
370.00	El Dorado Diamond Springs	0	6,432	0	3,038	0	0	303	303	21.2
371.00	El Dorado Diamond Springs	0	740	795	18	21	47	0	47	15.9
372.00	El Dorado Diamond Springs	0	16,774	7,739	2,417	195	433	211	644	26.0
373.00	El Dorado Diamond Springs	0	652	643	19	26	59	0	59	11.1
374.00	El Dorado Diamond Springs	0	414	329	29	13	28	2	30	13.6
375.00	El Dorado Diamond Springs	0	368	368	10	14	32	0	32	11.7
376.00	El Dorado Diamond Springs	0	973	935	57	34	77	3	80	12.2
377.00	El Dorado Diamond Springs	0	561	329	157	13	29	14	43	12.9
378.00	El Dorado Diamond Springs	0	667	652	19	27	59	0	59	11.3
379.00	El Dorado Diamond Springs	0	1,102	1,113	31	48	105	0	105	10.5
380.00	El Dorado Diamond Springs	0	256	245	7	12	26	0	26	9.7
381.00	El Dorado Diamond Springs	0	158	143	5	7	15	0	15	10.3
382.00	El Dorado Diamond Springs	0	261	239	8	11	24	0	24	10.8
383.00	Unincorporated El Dorado County (Remainder Area)	0	1,591	1,742	40	46	102	0	102	15.6
384.00	El Dorado Diamond Springs	0	3,654	3,970	95	120	267	0	267	13.7
385.00	El Dorado Diamond Springs	0	11,717	13,659	337	451	1,002	0	1,002	11.7
386.00	El Dorado Diamond Springs	0	2,657	2,922	67	90	200	0	200	13.3
387.00	El Dorado Diamond Springs	0	1,172	929	107	36	80	8	88	13.3
388.00	El Dorado Diamond Springs	0	6,359	0	3,067	0	0	303	303	21.0
389.00	El Dorado Diamond Springs	0	6,129	11	2,616	2	4	264	268	22.8
390.00	El Dorado Diamond Springs	0	4,307	3,894	359	182	379	23	402	10.7

VMT Summary by Jurisdiction - 2018 Baseline Scenario

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391.00	El Dorado Diamond Springs	0	2,173	196	547	11	23	54	77	28.3
392.00	El Dorado Diamond Springs	0	671	600	23	28	58	0	58	11.5
393.00	El Dorado Diamond Springs	0	9,002	6,354	1,004	268	605	68	673	13.4
394.00	El Dorado Diamond Springs	0	186	202	5	8	22	0	22	8.5
395.00	Placerville	1	62,226	1,584	26,085	74	166	2,253	2,419	25.7
396.00	El Dorado Diamond Springs	0	28,140	0	5,846	0	0	439	439	64.1
397.00	El Dorado Diamond Springs	0	1,329	1,264	69	50	114	3	117	11.4
398.00	El Dorado Diamond Springs	0	413	322	38	14	32	3	35	11.9
399.00	El Dorado Diamond Springs	0	1,126	1,133	32	43	97	0	97	11.6
400.00	El Dorado Diamond Springs	0	313	262	11	16	33	0	33	9.4
401.00	Placerville	0	8,987	658	2,628	28	63	213	276	32.6
402.00	El Dorado Diamond Springs	0	3,541	1,448	1,078	51	133	106	239	14.8
403.00	El Dorado Diamond Springs	0	23,814	3,632	7,792	124	258	654	912	26.1
404.00	El Dorado Diamond Springs	0	1,343	409	459	19	42	49	91	14.8
405.00	El Dorado Diamond Springs	0	169	150	5	9	20	0	20	8.6
406.00	El Dorado Diamond Springs	0	18,956	553	3,787	24	53	286	339	56.0
407.00	El Dorado Diamond Springs	0	9,540	18	3,373	1	2	309	311	30.7
408.00	El Dorado Diamond Springs	0	4,167	22	1,742	1	2	182	184	22.6
409.00	Placerville	0	18,695	3,018	5,656	104	248	445	693	27.0
410.00	El Dorado Diamond Springs	0	24,455	14,637	3,607	426	1,031	277	1,308	18.7
411.00	Placerville	1	50,523	6,155	13,292	298	712	1,271	1,983	25.5
412.00	Unincorporated El Dorado County (Remainder Area)	0	2,967	3,203	79	86	206	0	206	14.4
413.00	Placerville	0	3,607	3,787	102	126	301	0	301	12.0
414.00	El Dorado Diamond Springs	0	2,618	129	1,180	7	15	120	135	19.5
415.00	Unincorporated El Dorado County (Remainder Area)	0	434	442	12	18	40	0	40	10.7
416.00	El Dorado Diamond Springs	0	148	145	4	9	19	0	19	7.9
417.00	Placerville	1	9,685	1,098	2,868	45	114	278	392	24.7
418.00	Placerville	1	3,170	0	673	0	0	64	64	49.5
419.00	Placerville	1	3,283	0	844	0	0	85	85	38.6
420.00	Placerville	1	1,760	957	498	42	100	52	152	11.5
421.00	Placerville	1	1,662	1,578	97	68	163	5	168	9.9
422.00	Placerville	1	52,703	6,323	24,673	278	652	1,907	2,559	20.6
423.00	Unincorporated El Dorado County (Remainder Area)	0	460	482	12	20	48	0	48	9.6
424.00	Placerville	0	10,237	4,839	2,517	171	391	228	619	16.6
425.00	Placerville	0	52,855	32,203	5,947	1,167	2,617	563	3,180	16.6
426.00	Placerville	0	859	990	19	33	82	0	82	10.5
427.00	Unincorporated El Dorado County (Remainder Area)	0	3,962	4,548	92	93	232	0	232	17.1
428.00	Unincorporated El Dorado County (Remainder Area)	0	643	741	15	22	55	0	55	11.7
429.00	Unincorporated El Dorado County (Remainder Area)	0	1,310	1,650	34	35	83	0	83	15.9
430.00	Unincorporated El Dorado County (Remainder Area)	0	2,529	2,476	178	58	137	10	147	17.2
431.00	Placerville	1	1,794	471	655	22	45	60	105	17.1
432.00	Unincorporated El Dorado County (Remainder Area)	0	15,284	10,519	2,696	309	729	229	958	16.0
433.00	Placerville	1	10,428	9,659	707	481	1,041	36	1,077	9.7
434.00	Placerville	1	673	587	23	33	71	0	71	9.5
435.00	Placerville	1	1,186	645	243	36	77	27	104	11.4
436.00	Unincorporated El Dorado County (Remainder Area)	0	970	1,150	20	25	62	0	62	15.6
437.00	Unincorporated El Dorado County (Remainder Area)	0	5,377	5,676	248	117	287	12	299	18.0
438.00	Unincorporated El Dorado County (Remainder Area)	0	5,578	5,269	232	124	278	11	289	19.3
439.00	Unincorporated El Dorado County (Remainder Area)	0	5,421	6,310	172	156	350	3	353	15.4
440.00	Unincorporated El Dorado County (Remainder Area)	0	1,394	1,100	177	28	63	15	78	17.9
441.00	Placerville	1	362	377	9	12	29	0	29	12.6
442.00	Placerville	1	13,108	10,677	1,035	313	768	69	837	15.7
443.00	Unincorporated El Dorado County (Remainder Area)	0	1,458	1,567	36	38	85	0	85	17.1
444.00	Unincorporated El Dorado County (Remainder Area)	0	200	220	5	8	19	0	19	10.4
445.00	Placerville	0	1,044	902	151	23	56	11	67	15.5
446.00	Placerville	1	1,761	851	247	25	59	19	78	22.7
447.00	Unincorporated El Dorado County (Remainder Area)	0	3,244	3,964	67	76	189	0	189	17.1
448.00	Placerville	0	1,803	2,094	74	53	130	4	134	13.5
449.00	Unincorporated El Dorado County (Remainder Area)	0	540	573	14	14	30	0	30	18.0
450.00	Unincorporated El Dorado County (Remainder Area)	0	3,267	2,678	392	84	180	31	211	15.5
451.00	Unincorporated El Dorado County (Remainder Area)	0	980	1,034	25	27	58	0	58	16.9
452.00	Placerville	0	6,274	4,034	500	121	259	33	292	21.5
453.00	Placerville	1	2,919	3,086	120	145	310	1	311	9.4
454.00	Unincorporated El Dorado County (Remainder Area)	0	567	544	18	25	54	0	54	10.6
455.00	Unincorporated El Dorado County (Remainder Area)	0	2,712	3,062	67	73	172	0	172	15.8
456.00	Unincorporated El Dorado County (Remainder Area)	0	1,880	2,061	48	51	109	0	109	17.2
457.00	Unincorporated El Dorado County (Remainder Area)	0	2,808	3,060	129	62	137	5	142	19.8
458.00	Placerville	0	2,940	2,602	343	67	157	26	183	16.0
459.00	Placerville	0	309	353	7	11	26	0	26	12.0
460.00	Unincorporated El Dorado County (Remainder Area)	0	1,457	966	264	22	47	20	67	21.7
461.00	Unincorporated El Dorado County (Remainder Area)	0	1,567	222	616	6	14	59	73	21.4
462.00	Unincorporated El Dorado County (Remainder Area)	0	5,224	1,278	1,752	31	66	125	191	27.3
463.00	Unincorporated El Dorado County (Remainder Area)	0	4,473	7,256	39	85	194	0	194	23.0
464.00	Unincorporated El Dorado County (Remainder Area)	0	2,526	3,312	39	47	104	0	104	24.4
465.00	Unincorporated El Dorado County (Remainder Area)	0	3,956	5,701	114	58	134	16	150	26.4
466.00	Unincorporated El Dorado County (Remainder Area)	0	3,542	4,418	201	61	139	22	161	22.0
467.00	Unincorporated El Dorado County (Remainder Area)	0	2,484	3,848	23	39	89	0	89	27.9
468.00	Unincorporated El Dorado County (Remainder Area)	0	6,778	9,766	125	120	277	6	283	24.0

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469.00	Unincorporated El Dorado County (Remainder Area)	0	4,092	5,682	136	59	131	15	146	28.1
470.00	Unincorporated El Dorado County (Remainder Area)	0	2,031	3,078	27	32	73	1	74	27.4
471.00	Unincorporated El Dorado County (Remainder Area)	0	1,477	2,039	54	23	53	6	59	25.2
472.00	Unincorporated El Dorado County (Remainder Area)	0	1,953	2,297	146	26	59	20	79	24.6
473.00	Unincorporated El Dorado County (Remainder Area)	0	602	576	30	10	23	2	25	24.1
474.00	Unincorporated El Dorado County (Remainder Area)	0	1,692	2,178	28	37	81	0	81	20.9
475.00	Unincorporated El Dorado County (Remainder Area)	0	1,797	2,384	27	38	83	0	83	21.7
476.00	Unincorporated El Dorado County (Remainder Area)	0	859	1,123	12	16	41	0	41	20.8
477.00	Unincorporated El Dorado County (Remainder Area)	0	2,038	2,558	124	30	69	15	84	24.2
478.00	Unincorporated El Dorado County (Remainder Area)	0	1,481	1,914	24	30	66	0	66	22.5
479.00	Unincorporated El Dorado County (Remainder Area)	0	4,068	3,155	440	51	118	37	155	26.3
480.00	Unincorporated El Dorado County (Remainder Area)	0	1,298	1,999	13	20	46	0	46	28.4
481.00	Unincorporated El Dorado County (Remainder Area)	0	1,335	2,030	15	20	44	0	44	30.4
482.00	Unincorporated El Dorado County (Remainder Area)	0	5,633	7,942	92	74	163	3	166	34.0
483.00	Unincorporated El Dorado County (Remainder Area)	0	4,435	5,257	173	115	249	9	258	17.2
484.00	Unincorporated El Dorado County (Remainder Area)	0	6,755	5,646	945	91	227	114	341	19.8
485.00	Unincorporated El Dorado County (Remainder Area)	0	1,058	1,522	11	15	37	0	37	28.3
486.00	Unincorporated El Dorado County (Remainder Area)	0	4,063	5,882	47	69	156	0	156	26.1
487.00	Unincorporated El Dorado County (Remainder Area)	0	11,817	11,343	739	221	519	36	555	21.3
488.00	Unincorporated El Dorado County (Remainder Area)	0	5,531	7,566	86	107	242	0	242	22.9
489.00	Unincorporated El Dorado County (Remainder Area)	0	6,881	7,088	660	133	300	58	358	19.2
490.00	Unincorporated El Dorado County (Remainder Area)	0	1,174	1,529	19	24	60	0	60	19.6
491.00	Unincorporated El Dorado County (Remainder Area)	0	7,374	9,114	177	160	399	3	402	18.3
492.00	Unincorporated El Dorado County (Remainder Area)	0	5,053	4,473	408	71	176	31	207	24.4
493.00	Unincorporated El Dorado County (Remainder Area)	0	5,090	4,560	369	72	178	26	204	24.9
494.00	Unincorporated El Dorado County (Remainder Area)	0	3,256	3,963	138	68	170	10	180	18.1
495.00	Unincorporated El Dorado County (Remainder Area)	0	652	851	11	16	40	0	40	16.4
496.00	Unincorporated El Dorado County (Remainder Area)	0	7,363	4,566	830	81	201	67	268	27.5
497.00	Unincorporated El Dorado County (Remainder Area)	0	4,324	5,722	101	88	224	3	227	19.0
498.00	Unincorporated El Dorado County (Remainder Area)	0	3,446	4,471	104	70	158	6	164	21.0
499.00	Unincorporated El Dorado County (Remainder Area)	0	1,340	1,788	22	30	75	0	75	17.9
500.00	Unincorporated El Dorado County (Remainder Area)	0	4,091	1,341	603	11	26	51	77	53.3
501.00	Unincorporated El Dorado County (Remainder Area)	0	2,805	1,018	768	22	49	83	132	21.3
502.00	Unincorporated El Dorado County (Remainder Area)	0	7,007	7,684	351	117	272	18	290	24.2
503.00	Unincorporated El Dorado County (Remainder Area)	0	4,159	0	1,010	1	2	76	78	53.2
504.00	Unincorporated El Dorado County (Remainder Area)	0	6,094	6,503	344	141	313	19	332	18.4
505.00	Unincorporated El Dorado County (Remainder Area)	0	73	86	1	3	7	0	7	11.0
506.00	Unincorporated El Dorado County (Remainder Area)	0	1,026	1,245	22	28	62	0	62	16.5
507.00	Unincorporated El Dorado County (Remainder Area)	0	2,748	2,382	392	50	116	37	153	17.9
508.00	Unincorporated El Dorado County (Remainder Area)	0	6,688	3,507	1,838	85	184	186	370	18.1
509.00	Unincorporated El Dorado County (Remainder Area)	0	392	428	22	12	27	2	29	13.7
510.00	Unincorporated El Dorado County (Remainder Area)	0	3,230	3,509	157	92	199	10	209	15.5
511.00	Unincorporated El Dorado County (Remainder Area)	0	2,738	1,886	359	45	105	33	138	19.9
512.00	Unincorporated El Dorado County (Remainder Area)	0	2,833	1,982	367	37	86	27	113	25.1
513.00	Unincorporated El Dorado County (Remainder Area)	0	7,428	10,752	84	142	354	0	354	21.0
514.00	Unincorporated El Dorado County (Remainder Area)	0	31,897	46,989	311	622	1,551	0	1,551	20.6
515.00	Unincorporated El Dorado County (Remainder Area)	0	3,604	4,785	105	69	176	8	184	19.6
516.00	Unincorporated El Dorado County (Remainder Area)	0	8,117	11,779	87	142	362	0	362	22.4
517.00	Unincorporated El Dorado County (Remainder Area)	0	18,953	21,253	1,114	388	857	101	958	19.8
518.00	Unincorporated El Dorado County (Remainder Area)	0	11,917	15,759	307	289	671	17	688	17.3
519.00	Unincorporated El Dorado County (Remainder Area)	0	5,880	7,837	191	142	330	12	342	17.2
520.00	Unincorporated El Dorado County (Remainder Area)	0	11,943	16,149	268	266	617	12	629	19.0
521.00	Unincorporated El Dorado County (Remainder Area)	0	10,860	13,145	581	290	641	60	701	15.5
522.00	Unincorporated El Dorado County (Remainder Area)	0	5,096	7,230	64	85	221	0	221	23.1
523.00	Unincorporated El Dorado County (Remainder Area)	0	16,440	10,403	1,911	240	588	206	794	20.7
524.00	Unincorporated El Dorado County (Remainder Area)	0	14,687	12,653	1,114	205	490	103	593	24.8
525.00	Unincorporated El Dorado County (Remainder Area)	0	4,887	7,158	44	85	199	0	199	24.5
526.00	Unincorporated El Dorado County (Remainder Area)	0	245	336	3	5	12	0	12	20.1
527.00	Unincorporated El Dorado County (Remainder Area)	0	7,769	9,527	361	162	380	38	418	18.6
528.00	Unincorporated El Dorado County (Remainder Area)	0	59,936	84,546	793	1,001	2,429	72	2,501	24.0
529.00	Unincorporated El Dorado County (Remainder Area)	0	918	1,150	13	15	36	0	36	25.3
530.00	Unincorporated El Dorado County (Remainder Area)	0	12,922	17,323	192	191	462	0	462	28.0
531.00	Unincorporated El Dorado County (Remainder Area)	0	2,524	3,389	35	34	82	0	82	30.7
532.00	Unincorporated El Dorado County (Remainder Area)	0	3,996	5,157	59	61	147	0	147	27.1
533.00	Unincorporated El Dorado County (Remainder Area)	0	9,310	8,574	645	105	271	34	305	30.5
534.00	Unincorporated El Dorado County (Remainder Area)	0	3,782	4,952	52	53	128	0	128	29.5
535.00	Unincorporated El Dorado County (Remainder Area)	0	5,931	7,811	74	91	221	0	221	26.8
536.00	Unincorporated El Dorado County (Remainder Area)	0	5,088	6,583	64	82	200	0	200	25.5
537.00	Unincorporated El Dorado County (Remainder Area)	0	10,390	14,148	106	165	402	0	402	25.9
538.00	Unincorporated El Dorado County (Remainder Area)	0	3,965	3,049	304	44	107	22	129	30.8
539.00	Unincorporated El Dorado County (Remainder Area)	0	12,990	1,298	2,075	6	15	166	181	72.0
540.00	Unincorporated El Dorado County (Remainder Area)	0	2,856	0	572	0	0	53	53	53.9
541.00	Unincorporated El Dorado County (Remainder Area)	0	1,050	1,118	61	18	42	6	48	21.8
542.00	Unincorporated El Dorado County (Remainder Area)	0	3,610	3,094	413	52	123	37	160	22.6
543.00	Unincorporated El Dorado County (Remainder Area)	0	10,542	2,434	1,775	49	114	107	221	47.6
544.00	Unincorporated El Dorado County (Remainder Area)	0	679	496	104	9	21	8	29	23.4
545.00	Unincorporated El Dorado County (Remainder Area)	0	1,521	2,046	16	23	54	0	54	28.3
546.00	Unincorporated El Dorado County (Remainder Area)	0	4,811	6,428	54	61	143	0	143	33.8

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547.00	Unincorporated El Dorado County (Remainder Area)	0	4,019	523	481	10	23	46	69	57.9
548.00	Unincorporated El Dorado County (Remainder Area)	0	17,475	23,311	467	386	910	22	932	18.7
549.00	Unincorporated El Dorado County (Remainder Area)	0	2,160	2,718	39	42	99	0	99	21.8
550.00	Unincorporated El Dorado County (Remainder Area)	0	265	347	4	7	18	0	18	14.7
551.00	Unincorporated El Dorado County (Remainder Area)	0	5,421	2,524	783	41	105	54	159	34.0
552.00	Unincorporated El Dorado County (Remainder Area)	0	2,436	423	500	8	19	32	51	48.0
553.00	Unincorporated El Dorado County (Remainder Area)	0	1,568	2,058	26	32	75	0	75	21.0
554.00	Unincorporated El Dorado County (Remainder Area)	0	4,047	5,248	105	83	194	4	198	20.4
555.00	Unincorporated El Dorado County (Remainder Area)	0	1,654	2,238	24	34	80	0	80	20.6
556.00	Unincorporated El Dorado County (Remainder Area)	0	5,091	6,971	66	82	192	0	192	26.6
557.00	Unincorporated El Dorado County (Remainder Area)	0	1,694	2,093	31	35	82	1	83	20.5
558.00	Unincorporated El Dorado County (Remainder Area)	0	2,716	2,988	163	36	84	19	103	26.3
559.00	Unincorporated El Dorado County (Remainder Area)	0	1,381	1,831	17	25	59	0	59	23.6
560.00	Unincorporated El Dorado County (Remainder Area)	0	1,604	1,673	100	27	63	10	73	21.9
561.00	Unincorporated El Dorado County (Remainder Area)	0	1,182	1,578	18	22	52	0	52	22.7
562.00	Unincorporated El Dorado County (Remainder Area)	0	4,016	5,900	39	62	145	0	145	27.6
563.00	Unincorporated El Dorado County (Remainder Area)	0	2,211	3,362	17	32	71	0	71	31.3
564.00	Unincorporated El Dorado County (Remainder Area)	0	620	834	10	14	33	0	33	18.5
565.00	Unincorporated El Dorado County (Remainder Area)	0	2,632	3,669	38	56	129	0	129	20.4
566.00	Unincorporated El Dorado County (Remainder Area)	0	3,996	5,387	70	93	220	1	221	18.1
567.00	Unincorporated El Dorado County (Remainder Area)	0	671	816	25	18	42	2	44	15.4
568.00	Unincorporated El Dorado County (Remainder Area)	0	931	1,259	14	26	62	0	62	15.1
569.00	Unincorporated El Dorado County (Remainder Area)	0	3,705	2,852	298	61	144	31	175	21.1
570.00	Unincorporated El Dorado County (Remainder Area)	0	4,738	2,119	775	40	92	92	184	25.7
571.00	Unincorporated El Dorado County (Remainder Area)	0	1,371	1,843	22	33	76	0	76	18.0
572.00	Unincorporated El Dorado County (Remainder Area)	0	1,867	1,377	262	25	61	34	95	19.6
573.00	Unincorporated El Dorado County (Remainder Area)	0	6,504	7,840	121	89	197	2	199	32.7
574.00	Unincorporated El Dorado County (Remainder Area)	0	5,059	8,006	30	71	174	0	174	29.1
575.00	Unincorporated El Dorado County (Remainder Area)	0	2,777	4,117	16	29	71	0	71	39.1
576.00	Unincorporated El Dorado County (Remainder Area)	0	1,093	1,543	16	19	42	1	43	25.4
577.00	Unincorporated El Dorado County (Remainder Area)	0	753	1,117	7	13	29	0	29	26.2
578.00	Unincorporated El Dorado County (Remainder Area)	0	23,468	37,261	106	370	817	0	817	28.7
579.00	Unincorporated El Dorado County (Remainder Area)	0	3,788	5,279	100	38	96	12	108	34.9
580.00	Unincorporated El Dorado County (Remainder Area)	0	2,893	4,142	62	35	89	5	94	30.8
581.00	Unincorporated El Dorado County (Remainder Area)	0	4,278	5,106	291	43	95	32	127	33.8
582.00	Unincorporated El Dorado County (Remainder Area)	0	1,258	1,708	16	13	34	0	34	37.2
583.00	Unincorporated El Dorado County (Remainder Area)	0	27,736	43,328	212	352	774	10	784	35.4
584.00	Unincorporated El Dorado County (Remainder Area)	0	1,736	2,097	55	18	40	3	43	40.7
585.00	Unincorporated El Dorado County (Remainder Area)	0	9,569	14,366	78	124	273	0	273	35.1
586.00	Unincorporated El Dorado County (Remainder Area)	0	5,837	2,525	1,555	51	91	92	183	32.0
587.00	Unincorporated El Dorado County (Remainder Area)	0	2,277	3,414	17	39	99	0	99	22.9
588.00	Unincorporated El Dorado County (Remainder Area)	0	19,726	30,121	125	323	805	0	805	24.5
589.00	Unincorporated El Dorado County (Remainder Area)	0	393	627	2	3	12	0	12	32.7
590.00	Unincorporated El Dorado County (Remainder Area)	0	830	1,145	12	18	46	0	46	18.2
591.00	Unincorporated El Dorado County (Remainder Area)	0	86	122	1	3	8	0	8	11.3
592.00	Unincorporated El Dorado County (Remainder Area)	0	12,714	13,276	739	339	749	91	840	15.1
593.00	Unincorporated El Dorado County (Remainder Area)	0	6,940	9,089	265	151	382	28	410	16.9
594.00	Unincorporated El Dorado County (Remainder Area)	0	16,945	24,780	182	312	790	5	795	21.3
595.00	Unincorporated El Dorado County (Remainder Area)	0	1,939	1,825	265	25	56	31	87	22.2
596.00	Unincorporated El Dorado County (Remainder Area)	0	2,829	2,777	221	34	85	25	110	25.8
597.00	Unincorporated El Dorado County (Remainder Area)	0	11,029	4,036	1,914	106	234	278	512	21.5
598.00	Unincorporated El Dorado County (Remainder Area)	0	1,719	544	259	14	31	35	66	26.1
599.00	Unincorporated El Dorado County (Remainder Area)	0	712	969	11	17	38	0	38	18.9
600.00	Unincorporated El Dorado County (Remainder Area)	0	11,268	11,074	1,266	205	453	130	583	19.3
601.00	Unincorporated El Dorado County (Remainder Area)	0	1,338	1,903	4	10	22	0	22	60.9
602.00	Unincorporated El Dorado County (Remainder Area)	0	433	137	53	3	5	2	7	59.0
603.00	Unincorporated El Dorado County (Remainder Area)	0	906	729	84	11	20	2	22	42.0
604.00	Unincorporated El Dorado County (Remainder Area)	0	1,419	1,776	109	17	33	3	36	39.3
605.00	Unincorporated El Dorado County (Remainder Area)	0	1,653	1,766	86	18	38	2	40	41.3
606.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
607.00	Unincorporated El Dorado County (Remainder Area)	0	3,530	4,854	12	19	49	0	49	71.5
608.00	Unincorporated El Dorado County (Remainder Area)	0	6	0	0	1	2	0	2	2.9
609.00	Unincorporated El Dorado County (Remainder Area)	0	3,028	3,208	117	34	72	4	76	40.0
610.00	El Dorado Hills	0	38,894	185	20,450	0	0	1,745	1,745	22.3
611.00	El Dorado Hills	0	315	0	10	153	0	1	1	315.1
612.00	El Dorado Hills	0	79,244	0	44,405	0	0	3,121	3,121	25.4
613.00	Unincorporated El Dorado County (Remainder Area)	0	71	67	1	2	5	0	5	13.8
614.00	El Dorado Hills	0	5,951	7,036	115	150	383	0	383	15.6
615.00	El Dorado Hills	0	12,122	9,014	1,032	150	402	75	477	25.4
616.00	El Dorado Hills	0	1,374	1,639	25	37	94	0	94	14.7
617.00	El Dorado Hills	0	20,608	12,689	1,251	187	547	118	665	31.0
618.00	El Dorado Hills	0	3,136	0	1,248	0	0	146	146	21.5
619.00	El Dorado Hills	0	3,458	0	1,252	0	0	151	151	22.9
620.00	El Dorado Hills	0	17,790	3,464	1,776	0	0	188	188	94.6
621.00	El Dorado Hills	0	14,299	18,797	223	327	957	0	957	14.9
622.00	El Dorado Hills	0	21,947	21,514	1,625	370	1,083	147	1,230	17.8
623.00	Unincorporated El Dorado County (Remainder Area)	0	393	0	173	0	0	16	16	24.5
624.00	El Dorado Hills	0	15,659	17,550	1,193	308	905	96	1,001	15.7

VMT Summary by Jurisdiction - 2018 Baseline Scenario

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
625.00	El Dorado Hills	0	861	0	418	0	0	40	40	21.5
626.00	Unincorporated El Dorado County (Remainder Area)	0	8,700	7,509	1,120	164	383	98	481	18.1
627.00	Unincorporated El Dorado County (Remainder Area)	0	54,214	0	11,337	0	0	897	897	60.4
628.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
629.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
630.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
631.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
632.00	Unincorporated El Dorado County (Remainder Area)	0	1,446	1,742	25	37	94	0	94	15.4
633.00	Unincorporated El Dorado County (Remainder Area)	0	6,287	7,481	122	150	379	0	379	16.6
634.00	Unincorporated El Dorado County (Remainder Area)	0	6,451	7,748	122	150	379	0	379	17.0
635.00	Unincorporated El Dorado County (Remainder Area)	0	4,874	5,840	92	113	286	0	286	17.0
636.00	Unincorporated El Dorado County (Remainder Area)	0	4,366	6,094	81	120	322	0	322	13.6
637.00	Unincorporated El Dorado County (Remainder Area)	0	8,062	9,923	140	171	458	0	458	17.6
638.00	Unincorporated El Dorado County (Remainder Area)	0	1,037	1,266	16	23	62	0	62	16.8
639.00	Unincorporated El Dorado County (Remainder Area)	0	2,263	2,810	36	46	123	0	123	18.4
640.00	Unincorporated El Dorado County (Remainder Area)	0	7,666	9,534	125	176	472	0	472	16.2
641.00	Unincorporated El Dorado County (Remainder Area)	0	2,088	2,601	33	46	123	0	123	16.9
642.00	Unincorporated El Dorado County (Remainder Area)	0	28,454	33,516	1,269	637	1,708	93	1,801	15.8
643.00	Unincorporated El Dorado County (Remainder Area)	0	9,822	12,118	163	216	579	0	579	17.0
644.00	Unincorporated El Dorado County (Remainder Area)	0	2,922	3,676	47	76	194	0	194	15.1
645.00	Unincorporated El Dorado County (Remainder Area)	0	21,198	24,639	949	415	1,059	51	1,110	19.1
646.00	Unincorporated El Dorado County (Remainder Area)	0	8,819	11,040	154	192	490	0	490	18.0
647.00	Unincorporated El Dorado County (Remainder Area)	0	1,587	1,896	69	38	97	6	103	15.4
648.00	Unincorporated El Dorado County (Remainder Area)	0	1,814	2,169	46	38	97	2	99	18.3
649.00	Unincorporated El Dorado County (Remainder Area)	0	5,510	3,117	31	38	97	0	97	56.8
650.00	Outside of County	0	3,018,017	1,487,652	470,023	0	0	0	0	-
651.00	Outside of County	0	28,430	14,325	4,161	0	0	0	0	-
652.00	Outside of County	0	0	0	0	0	0	0	0	-
653.00	Outside of County	0	391,601	159,733	51,129	0	0	0	0	-
654.00	Outside of County	0	56,157	9,082	2,855	0	0	0	0	-
655.00	Outside of County	0	269,259	107,794	35,163	0	0	0	0	-
656.00	Outside of County	0	76,873	18,147	8,671	0	0	0	0	-
657.00	Outside of County	0	186,257	8,193	3,831	0	0	0	0	-
658.00	Outside of County	0	0	0	0	0	0	0	0	-
659.00	Outside of County	0	7,525	3,130	1,406	0	0	0	0	-
660.00	Outside of County	0	164,217	81,865	31,549	0	0	0	0	-
661.00	Outside of County	0	156,422	71,575	25,672	0	0	0	0	-
662.00	Outside of County	0	700,690	338,333	119,222	0	0	0	0	-
663.00	Outside of County	0	679,400	227,123	80,896	0	0	0	0	-
664.00	Outside of County	0	347,429	190,135	54,774	0	0	0	0	-
665.00	Outside of County	0	199,364	79,618	30,980	0	0	0	0	-
666.00	Outside of County	0	88,161	45,079	14,335	0	0	0	0	-
667.00	Outside of County	0	0	0	0	0	0	0	0	-
668.00	Outside of County	0	512,377	310,784	0	0	0	0	0	-
669.00	Outside of County	0	0	0	0	0	0	0	0	-
670.00	Outside of County	0	0	0	0	0	0	0	0	-
671.00	Outside of County	0	169,913	96,013	23,735	0	0	0	0	-
672.00	Outside of County	0	33,262	34,250	0	0	0	0	0	-
673.00	Outside of County	0	24,884	14,900	0	0	0	0	0	-
674.00	Outside of County	0	355,415	29,972	0	0	0	0	0	-

2040 Baseline Scenario

VMT Summary by Jurisdiction - 2040 Baseline Scenario

	VMT Estimates			VMT Efficiency Metrics			Population Details				
Jurisdiction	Total OD VMT	Home-based PA VMT	Home-based Work PA VMT	Total VMT per Service Population	Home-based VMT per Capita	Home-based Work VMT per Employee	Total Households	Total Population	Total Employment	Total Service Population	Persons Per Household
City of Placerville	403,646	62,940	105,579	24.8	8.2	12.2	3,429	7,658	8,649	16,307	2.23
Unincorporated El Dorado County	5,042,237	3,102,953	675,594	21.2	17.1	12.0	73,092	181,914	56,413	238,327	2.49
			Threshold (85% of Unincorporated El Dorado County)		14.5	10.2					

VMT Summary by Jurisdiction - 2040 Baseline Scenario

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
1.00	Unincorporated El Dorado County (Remainder Area)	0	5,577	1,771	819	47	99	36	135	41.3
2.00	Unincorporated El Dorado County (Remainder Area)	0	23,283	24,630	870	592	1,338	77	1,415	16.5
3.00	Unincorporated El Dorado County (Remainder Area)	0	5,275	6,532	98	74	180	0	180	29.4
4.00	Unincorporated El Dorado County (Remainder Area)	0	1,065	1,368	17	16	35	0	35	30.7
5.00	Unincorporated El Dorado County (Remainder Area)	0	2,584	3,591	26	33	73	0	73	35.4
6.00	Unincorporated El Dorado County (Remainder Area)	0	13,805	15,958	505	366	847	14	861	16.0
7.00	Unincorporated El Dorado County (Remainder Area)	0	24,308	26,914	1,345	565	1,223	92	1,315	18.5
8.00	Unincorporated El Dorado County (Remainder Area)	0	11,267	575	1,969	15	38	129	167	67.6
9.00	Unincorporated El Dorado County (Remainder Area)	0	25,132	30,522	627	559	1,400	13	1,413	17.8
10.00	Outside of County	0	108,486	87,346	11,383	2,178	5,588	1,056	6,644	16.3
11.00	Outside of County	0	111,997	80,769	13,767	2,148	5,511	1,297	6,808	16.5
12.00	Outside of County	0	58,773	44,883	4,878	1,179	3,234	437	3,671	16.0
13.00	Outside of County	0	34,464	40,043	1,540	906	2,458	99	2,557	13.5
14.00	Outside of County	0	59,225	68,150	1,704	1,511	4,120	78	4,198	14.1
15.00	Outside of County	0	3,041	3,912	59	58	166	0	166	18.4
16.00	Outside of County	0	56,181	21,685	7,600	659	1,614	689	2,303	24.4
17.00	Outside of County	0	161,000	141,146	14,049	2,811	7,160	1,363	8,523	18.9
18.00	Outside of County	0	84,904	96,958	3,631	1,930	4,652	246	4,898	17.3
19.00	Outside of County	0	10,270	5,762	1,091	96	217	103	320	32.1
20.00	Outside of County	0	7,630	143	4,060	2	7	283	290	26.3
21.00	Outside of County	0	26,219	73	13,535	2	4	1,082	1,086	24.1
22.00	Outside of County	0	1,683	10	335	1	1	21	22	76.5
23.00	Outside of County	0	29,007	12,699	3,659	115	322	261	583	49.7
24.00	Outside of County	0	4,209	3,133	139	133	133	0	133	31.6
25.00	Outside of County	0	0	0	0	0	0	0	0	-
26.00	Outside of County	0	109,636	103,251	7,988	2,238	5,070	642	5,712	19.2
27.00	Outside of County	0	8,221	76	3,043	2	5	338	343	24.0
28.00	Outside of County	0	240,481	201,753	17,253	4,828	12,553	1,923	14,476	16.6
29.00	Outside of County	0	8,677	11,086	163	170	486	0	486	17.9
30.00	Outside of County	0	71,035	73,528	5,820	1,194	3,041	368	3,409	20.8
31.00	Outside of County	0	10,189	5,261	599	41	106	44	150	67.7
32.00	Outside of County	0	30,011	38,869	687	692	1,811	21	1,832	16.4
33.00	Outside of County	0	38,665	48,142	1,368	857	2,183	69	2,252	17.2
34.00	Outside of County	0	6,133	5,984	702	69	156	32	188	32.6
35.00	Outside of County	0	30,842	37,467	774	812	2,092	0	2,092	14.7
36.00	Outside of County	0	37,373	45,280	905	910	2,318	0	2,318	16.1
37.00	Outside of County	0	58,191	2,570	21,985	57	142	1,643	1,785	32.6
38.00	Outside of County	0	6,657	3,876	635	57	142	45	187	35.7
39.00	Outside of County	0	16,965	14,560	2,117	514	1,180	181	1,361	12.5
40.00	Outside of County	0	75,695	22,144	16,170	851	1,972	1,905	3,877	19.5
41.00	Outside of County	0	35,443	24,462	7,537	592	1,368	567	1,935	18.3
42.00	Outside of County	0	175,509	97,906	24,675	2,081	5,108	1,911	7,019	25.0
43.00	Outside of County	0	34,551	40,416	973	849	2,170	46	2,216	15.6
44.00	Outside of County	0	110,572	81,356	8,862	1,827	4,654	791	5,445	20.3
45.00	Outside of County	0	72,610	23,160	12,084	846	1,936	1,262	3,198	22.7
46.00	Outside of County	0	5,984	6,531	150	164	375	0	375	15.9
47.00	Outside of County	0	201,201	9,498	80,144	284	681	5,991	6,672	30.2
48.00	Outside of County	0	48,147	42,713	3,724	1,211	3,071	266	3,337	14.4
49.00	Outside of County	0	109,811	586	49,788	18	45	4,248	4,293	25.6
50.00	Outside of County	0	73,223	36,351	21,786	981	2,487	1,736	4,223	17.3
51.00	Outside of County	0	97,988	51,789	15,576	1,710	4,116	1,373	5,489	17.9
52.00	Outside of County	0	30,503	15,044	3,151	279	629	279	908	33.6
53.00	Outside of County	0	78,930	47,997	10,799	1,399	3,606	983	4,589	17.2
54.00	Outside of County	0	59,817	22,507	22,177	494	1,220	1,748	2,968	20.2
55.00	Outside of County	0	76,816	30,242	13,824	639	1,471	1,127	2,598	29.6
56.00	Outside of County	0	36,016	40,247	1,285	872	2,337	56	2,393	15.0
57.00	Outside of County	0	107,258	24,206	46,054	660	1,466	4,152	5,618	19.1
58.00	Outside of County	0	36,017	26,091	4,381	613	1,587	352	1,939	18.6
59.00	Outside of County	0	45,084	90	26,765	2	5	2,191	2,196	20.5
60.00	Outside of County	0	67,902	8,286	30,755	240	512	2,711	3,223	21.1
61.00	Outside of County	0	140,399	87,296	22,426	2,381	5,595	1,810	7,405	19.0
62.00	Outside of County	0	51,641	1,929	23,725	33	110	2,000	2,110	24.5
63.00	Outside of County	0	65,971	5,287	26,981	143	350	2,462	2,812	23.5
64.00	Outside of County	0	128,949	73,483	20,622	2,031	5,053	1,733	6,786	19.0
65.00	Outside of County	0	5,599	6,327	125	127	328	0	328	17.1
66.00	Outside of County	0	37,694	28,192	4,165	887	2,117	331	2,448	15.4
67.00	Outside of County	0	117,020	21,912	38,405	633	1,374	3,381	4,755	24.6
68.00	Outside of County	0	38,606	12,450	10,773	453	946	1,002	1,948	19.8
69.00	Outside of County	0	240,406	69,515	96,278	1,950	5,172	7,364	12,536	19.2
70.00	Outside of County	0	160,478	1,049	96,174	15	38	7,503	7,541	21.3
71.00	Outside of County	0	216,856	131,337	32,088	2,596	6,730	2,417	9,147	23.7
72.00	Outside of County	0	269,467	750	154,094	0	0	10,084	10,084	26.7
73.00	Outside of County	0	96,236	0	60,285	0	0	4,612	4,612	20.9
74.00	Outside of County	0	134,490	17,437	65,999	546	1,335	5,255	6,590	20.4

VMT Summary by Jurisdiction - 2040 Baseline Scenario

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
75.00	Outside of County	0	84,202	62,232	16,925	1,946	4,535	1,072	5,607	15.0
76.00	Outside of County	0	27,691	16,903	3,797	497	1,333	313	1,646	16.8
77.00	Outside of County	0	80,840	41,776	19,346	1,068	2,684	1,384	4,068	19.9
78.00	Outside of County	0	70,420	0	20,196	1	2	1,777	1,779	39.6
79.00	Outside of County	0	75,763	58,024	9,204	1,345	3,258	620	3,878	19.5
80.00	Outside of County	0	33,570	0	16,311	0	0	1,306	1,306	25.7
81.00	Outside of County	0	178,581	0	99,760	0	0	7,809	7,809	22.9
82.00	Outside of County	0	52,351	0	25,971	0	0	2,171	2,171	24.1
83.00	Outside of County	0	51,010	34,487	6,753	590	1,536	460	1,996	25.6
84.00	Outside of County	0	51,746	42,015	4,072	1,305	3,049	306	3,355	15.4
85.00	Outside of County	0	54,629	45,545	4,618	1,261	3,154	354	3,508	15.6
86.00	Outside of County	0	84,779	60,757	8,187	1,996	4,538	681	5,219	16.2
87.00	Outside of County	0	63,414	50,564	7,466	1,845	3,996	613	4,609	13.8
88.00	Outside of County	0	71,073	42,292	8,187	1,184	2,955	696	3,651	19.5
89.00	Outside of County	0	18,652	0	6,015	0	0	455	455	41.0
90.00	Outside of County	0	56,882	2,014	28,031	92	157	2,453	2,610	21.8
91.00	Outside of County	0	99,198	13,519	36,251	389	997	3,846	4,843	20.5
92.00	Outside of County	0	50,863	47,767	2,466	1,234	2,964	133	3,097	16.4
93.00	Outside of County	0	93,216	64,870	18,649	1,374	3,459	1,484	4,943	18.9
94.00	Outside of County	0	1,125	102	456	2	4	41	45	25.0
95.00	Outside of County	0	119,957	0	63,185	0	0	4,542	4,542	26.4
96.00	Outside of County	0	160,963	53,684	54,076	1,026	2,520	3,884	6,404	25.1
97.00	Outside of County	0	57,299	51,467	4,469	1,030	2,624	349	2,973	19.3
98.00	Outside of County	0	84,308	13,260	27,261	375	984	2,705	3,689	22.9
99.00	Outside of County	0	71,250	27,674	23,074	806	1,976	2,391	4,367	16.3
100.00	Outside of County	0	21,474	26,993	440	470	1,178	0	1,178	18.2
101.00	Outside of County	0	54,838	41,910	8,797	869	2,253	822	3,075	17.8
102.00	Outside of County	0	22,160	5,203	6,155	92	237	467	704	31.5
103.00	Outside of County	0	96,154	107,011	3,994	2,474	5,823	281	6,104	15.8
104.00	Outside of County	0	60,057	9,222	12,931	184	451	868	1,319	45.5
105.00	Outside of County	0	40,776	52,407	879	1,011	2,513	10	2,523	16.2
106.00	Outside of County	0	6,839	0	3,166	0	0	283	283	24.2
107.00	Outside of County	0	296,406	40,382	94,449	1,362	3,008	7,445	10,453	28.4
108.00	Outside of County	0	27,008	16,940	5,680	370	988	479	1,467	18.4
109.00	Outside of County	0	16,618	0	7,326	0	0	563	563	29.5
110.00	Outside of County	0	62,156	8,647	28,456	209	495	2,207	2,702	23.0
111.00	Outside of County	0	81,795	7,429	15,287	223	512	1,049	1,561	52.4
112.00	Outside of County	0	133,552	30,397	26,842	763	2,056	2,119	4,175	32.0
113.00	Outside of County	0	53,819	115	23,681	0	0	2,386	2,386	22.6
114.00	Outside of County	0	36,060	29,492	6,410	809	2,141	572	2,713	13.3
115.00	Outside of County	0	153,182	86,205	20,787	1,900	4,875	1,584	6,459	23.7
116.00	Outside of County	0	2,991	0	1,474	0	0	116	116	25.8
117.00	Outside of County	0	51,596	17,174	15,342	327	920	1,448	2,368	21.8
118.00	Outside of County	0	76,582	80,927	3,240	2,338	6,182	191	6,373	12.0
119.00	Outside of County	0	133,930	7,155	62,174	216	540	6,222	6,762	19.8
120.00	Outside of County	0	176,902	0	43,368	0	0	4,669	4,669	37.9
121.00	Outside of County	0	137,388	48,395	19,509	1,513	3,882	1,917	5,799	23.7
122.00	Outside of County	0	56,501	14,997	10,481	533	1,248	1,125	2,373	23.8
123.00	Outside of County	0	28,595	6,998	5,098	200	547	536	1,083	26.4
124.00	Outside of County	0	52,817	48,084	2,776	1,044	2,229	168	2,397	22.0
125.00	Outside of County	0	27,933	9,995	5,545	414	817	583	1,400	20.0
126.00	Outside of County	0	16,243	4,837	2,898	156	342	274	616	26.4
127.00	Outside of County	0	38,646	33,709	2,382	870	1,855	169	2,024	19.1
128.00	Outside of County	0	66,050	47,193	6,765	1,262	2,600	538	3,138	21.0
129.00	Outside of County	0	41,333	43,608	1,825	1,045	2,302	117	2,419	17.1
130.00	Outside of County	0	21,004	9,167	2,657	342	786	298	1,084	19.4
131.00	Outside of County	0	47,353	14,668	11,269	494	1,013	1,272	2,285	20.7
132.00	Outside of County	0	27,968	23,222	2,759	556	1,258	235	1,493	18.7
133.00	Outside of County	0	118,100	58,239	14,396	2,077	5,182	1,628	6,810	17.3
134.00	Outside of County	0	61,149	30,010	18,017	1,074	2,483	1,578	4,061	15.1
135.00	Outside of County	0	50,360	0	27,533	0	0	2,740	2,740	18.4
136.00	Outside of County	0	25,821	27,605	1,369	661	1,688	93	1,781	14.5
137.00	Outside of County	0	112,329	102,589	6,994	2,426	6,986	595	7,581	14.8
138.00	El Dorado Diamond Springs	0	21,919	6,082	4,329	264	577	297	874	25.1
139.00	El Dorado Diamond Springs	0	10,536	1,345	1,705	67	144	156	300	35.1
140.00	El Dorado Diamond Springs	0	56,900	127	10,262	10	22	811	833	68.3
141.00	Unincorporated El Dorado County (Remainder Area)	0	1,488	1,667	28	21	49	0	49	30.3
142.00	Unincorporated El Dorado County (Remainder Area)	0	6,586	6,517	171	156	347	0	347	19.0
143.00	Unincorporated El Dorado County (Remainder Area)	0	4,208	3,324	255	108	240	12	252	16.7
144.00	Unincorporated El Dorado County (Remainder Area)	0	4,019	3,572	339	80	200	21	221	18.2
145.00	Unincorporated El Dorado County (Remainder Area)	0	742	650	25	30	70	0	70	10.6
146.00	El Dorado Diamond Springs	0	6,251	2,345	1,107	114	261	98	359	17.4
147.00	El Dorado Diamond Springs	0	3,727	3,553	131	165	378	0	378	9.8
148.00	Outside of County	0	155,420	185,969	5,362	2,264	5,302	120	5,422	28.7

VMT Summary by Jurisdiction - 2040 Baseline Scenario

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149.00	Shingle Springs	0	16,644	1,750	3,538	53	149	287	436	38.2
150.00	Unincorporated El Dorado County (Remainder Area)	0	6,010	6,830	131	107	254	0	254	23.7
151.00	Unincorporated El Dorado County (Remainder Area)	0	1,302	1,727	19	23	67	0	67	19.5
152.00	Shingle Springs	0	34,226	6,129	5,240	201	488	370	858	39.9
153.00	Unincorporated El Dorado County (Remainder Area)	0	8,548	8,130	247	290	623	0	623	13.7
154.00	Unincorporated El Dorado County (Remainder Area)	0	6,923	7,061	192	254	597	0	597	11.6
155.00	Shingle Springs	0	5,210	5,654	133	154	406	0	406	12.8
156.00	Unincorporated El Dorado County (Remainder Area)	0	2,047	2,316	57	27	68	1	69	29.7
157.00	El Dorado Hills	0	8,646	10,861	168	273	790	0	790	10.9
158.00	Cameron Park	0	17,384	18,613	505	624	1,431	11	1,442	12.1
159.00	Cameron Park	0	15,343	14,559	1,449	446	1,082	114	1,196	12.8
160.00	Shingle Springs	0	18,392	16,609	1,167	504	1,223	70	1,293	14.2
161.00	El Dorado Hills	0	11,353	14,244	210	290	754	0	754	15.1
162.00	El Dorado Hills	0	57,372	77,615	887	1,503	4,465	0	4,465	12.8
163.00	El Dorado Hills	0	37,646	7,638	5,100	165	490	438	928	40.6
164.00	El Dorado Hills	0	61,232	0	32,391	0	0	3,124	3,124	19.6
165.00	El Dorado Hills	0	17,367	20,569	424	551	1,369	0	1,369	12.7
166.00	Outside of County	0	28,692	30,496	1,012	766	1,965	50	2,015	14.2
167.00	El Dorado Hills	0	47,835	46,337	2,359	1,520	3,531	111	3,641	13.1
168.00	El Dorado Hills	0	26,965	29,653	1,084	1,133	2,632	35	2,667	10.1
169.00	El Dorado Hills	0	118,869	5,595	25,708	208	517	2,484	3,001	39.6
170.00	El Dorado Hills	0	46,923	722	23,705	26	65	2,562	2,627	17.9
171.00	El Dorado Hills	0	16,341	16,278	1,064	441	1,081	68	1,148	14.2
172.00	El Dorado Hills	0	9,465	0	1,696	0	0	158	158	59.9
173.00	El Dorado Hills	0	46,417	0	11,158	0	0	1,140	1,140	40.7
174.00	Unincorporated El Dorado County (Remainder Area)	0	3,863	1,487	1,078	15	38	54	92	42.1
175.00	Unincorporated El Dorado County (Remainder Area)	0	2,612	630	484	10	24	22	46	57.1
176.00	Unincorporated El Dorado County (Remainder Area)	0	3,211	3,633	70	58	137	0	137	23.4
177.00	Unincorporated El Dorado County (Remainder Area)	0	11,090	8,569	1,814	147	370	130	500	22.2
178.00	Unincorporated El Dorado County (Remainder Area)	0	4,884	5,616	138	87	223	3	226	21.6
179.00	Unincorporated El Dorado County (Remainder Area)	0	737	932	12	21	55	0	55	13.5
180.00	El Dorado Hills	0	18,216	22,374	354	450	1,155	0	1,155	15.8
181.00	El Dorado Hills	0	6,992	5,404	692	120	315	61	376	18.6
182.00	Cameron Park	0	39,176	47,651	767	1,244	3,262	0	3,262	12.0
183.00	Unincorporated El Dorado County (Remainder Area)	0	11,007	11,993	270	354	832	0	832	13.2
184.00	Cameron Park	0	39,181	16,173	4,511	417	1,093	425	1,518	25.8
185.00	Cameron Park	0	3,898	4,376	86	152	349	0	349	11.2
186.00	Cameron Park	0	50,840	4,599	8,898	170	390	896	1,286	39.5
187.00	Cameron Park	0	10,759	7,112	1,208	247	566	104	670	16.0
188.00	Cameron Park	0	6,611	5,630	598	213	489	49	538	12.3
189.00	Unincorporated El Dorado County (Remainder Area)	0	2,454	3,141	40	36	100	0	100	24.4
190.00	Unincorporated El Dorado County (Remainder Area)	0	10,416	13,307	182	255	712	0	712	14.6
191.00	El Dorado Hills	0	1,437	1,825	24	39	109	0	109	13.2
192.00	El Dorado Hills	0	866	1,089	14	25	69	0	69	12.5
193.00	El Dorado Hills	0	14,290	5,231	3,682	156	406	361	768	18.6
194.00	El Dorado Hills	0	15,034	19,467	268	439	1,297	0	1,297	11.6
195.00	El Dorado Hills	0	9,027	469	2,007	10	26	176	203	44.5
196.00	Outside of County	0	52,397	59,847	1,724	1,148	3,198	97	3,295	15.9
197.00	El Dorado Hills	0	3,186	3,921	56	85	225	0	225	14.2
198.00	El Dorado Hills	0	69,020	39,116	6,079	887	2,476	623	3,099	22.3
199.00	El Dorado Hills	0	11,332	2,877	1,620	62	173	143	316	35.9
200.00	El Dorado Hills	0	6,394	305	1,223	7	19	121	140	45.8
201.00	El Dorado Hills	0	20,651	6,786	2,765	150	443	269	712	29.0
202.00	El Dorado Hills	0	37,475	35,429	2,120	762	2,127	169	2,296	16.3
203.00	El Dorado Hills	0	51,666	65,660	1,162	1,300	3,762	43	3,805	13.6
204.00	El Dorado Hills	0	17,153	16,147	639	362	1,048	48	1,096	15.6
205.00	El Dorado Hills	0	504	0	244	0	0	30	30	16.8
206.00	El Dorado Hills	0	1,622	2,074	28	51	148	0	148	11.0
207.00	El Dorado Hills	0	12,923	16,554	220	304	880	0	880	14.7
208.00	Unincorporated El Dorado County (Remainder Area)	0	325	424	5	9	26	0	26	12.5
209.00	El Dorado Hills	0	11,559	4,446	1,414	88	254	118	372	31.1
210.00	El Dorado Hills	0	6,340	8,147	109	162	479	0	479	13.2
211.00	Unincorporated El Dorado County (Remainder Area)	0	135	178	2	4	11	0	11	11.9
212.00	El Dorado Hills	0	2,394	3,100	38	53	153	0	153	15.6
213.00	Unincorporated El Dorado County (Remainder Area)	0	9,180	11,783	154	193	534	0	534	17.2
214.00	Unincorporated El Dorado County (Remainder Area)	0	2,328	3,353	31	31	76	0	76	30.8
215.00	El Dorado Hills	0	6,798	8,623	121	148	413	0	413	16.5
216.00	Unincorporated El Dorado County (Remainder Area)	0	1,749	2,460	26	23	56	0	56	31.2
217.00	Unincorporated El Dorado County (Remainder Area)	0	587	759	9	11	31	0	31	19.1
218.00	Unincorporated El Dorado County (Remainder Area)	0	1,510	1,891	26	28	78	0	78	19.3
219.00	Unincorporated El Dorado County (Remainder Area)	0	3,903	4,955	67	69	191	0	191	20.4
220.00	Unincorporated El Dorado County (Remainder Area)	0	471	632	6	9	25	0	25	18.9
221.00	El Dorado Hills	0	37,326	48,591	581	999	2,596	0	2,596	14.4
222.00	Cameron Park	0	2,165	1,463	427	34	90	58	148	14.6

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223.00	Cameron Park	0	5,504	7,081	79	174	461	0	461	11.9
224.00	Unincorporated El Dorado County (Remainder Area)	0	8,565	7,314	500	144	382	37	419	20.5
225.00	Unincorporated El Dorado County (Remainder Area)	0	23,221	10,893	2,967	147	424	277	702	33.1
226.00	Cameron Park	0	27,514	26,959	1,255	550	1,591	118	1,709	16.1
227.00	Cameron Park	0	8,651	10,994	207	281	689	10	699	12.4
228.00	Cameron Park	0	20,463	24,983	508	724	1,775	25	1,800	11.4
229.00	El Dorado Hills	0	41,462	34,471	2,382	793	2,061	237	2,298	18.0
230.00	El Dorado Hills	0	22,862	27,784	343	557	1,655	0	1,655	13.8
231.00	Unincorporated El Dorado County (Remainder Area)	0	4,978	6,651	73	134	388	0	388	12.8
232.00	Unincorporated El Dorado County (Remainder Area)	0	4,539	5,862	73	87	241	0	241	18.9
233.00	Cameron Park	0	8,471	3,660	748	116	266	100	366	23.1
234.00	Cameron Park	0	55,511	33,426	5,094	1,085	2,488	670	3,158	17.6
235.00	Cameron Park	0	42,235	54,330	640	1,322	3,580	2	3,582	11.8
236.00	Cameron Park	0	14,727	19,307	262	473	1,281	9	1,290	11.4
237.00	Cameron Park	0	2,247	2,615	46	78	179	0	179	12.6
238.00	Cameron Park	0	39,546	15,069	5,313	415	1,018	527	1,545	25.6
239.00	Cameron Park	0	2,338	3,345	35	86	228	0	228	10.3
240.00	Unincorporated El Dorado County (Remainder Area)	0	6,561	8,295	109	137	363	0	363	18.1
241.00	Cameron Park	0	14,966	7,538	1,277	181	480	151	631	23.7
242.00	Cameron Park	0	698	904	9	24	64	0	64	11.0
243.00	Cameron Park	0	2,017	2,585	32	61	162	1	163	12.4
244.00	Unincorporated El Dorado County (Remainder Area)	0	3,006	3,713	57	51	128	0	128	23.5
245.00	Unincorporated El Dorado County (Remainder Area)	0	772	999	11	10	30	0	30	25.7
246.00	Unincorporated El Dorado County (Remainder Area)	0	3,912	5,184	56	63	189	0	189	20.7
247.00	Unincorporated El Dorado County (Remainder Area)	0	13,625	14,348	352	296	636	0	636	21.4
248.00	Unincorporated El Dorado County (Remainder Area)	0	13,273	10,381	942	182	431	39	470	28.2
249.00	Unincorporated El Dorado County (Remainder Area)	0	3,358	1,860	529	26	56	25	81	41.5
250.00	Unincorporated El Dorado County (Remainder Area)	0	2,870	3,279	60	53	124	0	124	23.1
251.00	Unincorporated El Dorado County (Remainder Area)	0	5,625	6,213	136	139	363	0	363	15.5
252.00	Unincorporated El Dorado County (Remainder Area)	0	24,724	28,716	576	666	1,756	0	1,756	14.1
253.00	Unincorporated El Dorado County (Remainder Area)	0	7,485	8,850	159	149	410	0	410	18.3
254.00	Unincorporated El Dorado County (Remainder Area)	0	5,268	5,898	122	119	311	0	311	16.9
255.00	Cameron Park	0	64,954	0	14,885	0	0	1,405	1,405	46.2
256.00	Cameron Park	0	44,527	1,998	10,490	72	175	872	1,047	42.5
257.00	Shingle Springs	0	62,227	15,348	14,601	511	1,335	1,312	2,647	23.5
258.00	Unincorporated El Dorado County (Remainder Area)	0	2,120	2,523	40	36	99	0	99	21.4
259.00	Unincorporated El Dorado County (Remainder Area)	0	2,603	3,101	52	50	132	0	132	19.8
260.00	Shingle Springs	0	27,087	140	5,665	5	15	441	456	59.4
261.00	Shingle Springs	0	27,150	3,584	4,859	121	333	388	721	37.7
262.00	Shingle Springs	0	40,675	5,472	6,539	203	530	514	1,044	39.0
263.00	Shingle Springs	0	10,047	3,816	1,485	121	333	119	452	22.2
264.00	Shingle Springs	0	7,892	3,089	1,056	97	267	82	349	22.6
265.00	Unincorporated El Dorado County (Remainder Area)	0	1,956	2,209	43	44	116	0	116	16.9
266.00	Unincorporated El Dorado County (Remainder Area)	0	6,118	1,664	666	41	88	33	121	50.5
267.00	Unincorporated El Dorado County (Remainder Area)	0	8,695	10,038	219	240	633	0	633	13.7
268.00	Unincorporated El Dorado County (Remainder Area)	0	3,023	3,094	171	72	190	10	200	15.1
269.00	Unincorporated El Dorado County (Remainder Area)	0	13,580	9,332	1,442	217	558	81	639	21.2
270.00	Unincorporated El Dorado County (Remainder Area)	0	6,207	2,667	678	54	135	39	174	35.7
271.00	Unincorporated El Dorado County (Remainder Area)	0	9,840	9,935	735	172	442	50	492	20.0
272.00	Unincorporated El Dorado County (Remainder Area)	0	9,795	6,482	806	145	407	55	462	21.2
273.00	Unincorporated El Dorado County (Remainder Area)	0	7,439	8,885	376	138	400	22	422	17.6
274.00	Unincorporated El Dorado County (Remainder Area)	0	21,558	18,879	1,567	411	1,153	122	1,275	16.9
275.00	Unincorporated El Dorado County (Remainder Area)	0	14,758	17,112	337	379	971	0	971	15.2
276.00	Cameron Park	0	28,055	18,733	2,074	535	1,312	179	1,491	18.8
277.00	Cameron Park	0	4,944	5,796	100	176	427	0	427	11.6
278.00	Unincorporated El Dorado County (Remainder Area)	0	5,749	5,977	217	100	265	10	275	20.9
279.00	Unincorporated El Dorado County (Remainder Area)	0	2,919	3,719	49	55	146	0	146	20.0
280.00	Unincorporated El Dorado County (Remainder Area)	0	1,438	1,677	31	37	103	0	103	14.0
281.00	Unincorporated El Dorado County (Remainder Area)	0	4,881	4,202	427	85	238	28	266	18.3
282.00	Unincorporated El Dorado County (Remainder Area)	0	1,390	1,617	30	39	109	0	109	12.7
283.00	Shingle Springs	0	15,332	3,049	2,225	0	0	197	197	77.8
284.00	Shingle Springs	0	4,299	1,009	657	36	87	53	140	30.6
285.00	Unincorporated El Dorado County (Remainder Area)	0	14,061	2,737	2,962	53	154	233	387	36.3
286.00	Unincorporated El Dorado County (Remainder Area)	0	1,660	2,071	30	36	101	0	101	16.4
287.00	Unincorporated El Dorado County (Remainder Area)	0	1,395	1,685	27	34	87	0	87	16.0
288.00	Unincorporated El Dorado County (Remainder Area)	0	2,174	2,688	40	50	140	0	140	15.5
289.00	Unincorporated El Dorado County (Remainder Area)	0	320	421	5	8	23	0	23	13.8
290.00	Unincorporated El Dorado County (Remainder Area)	0	2,045	2,614	35	44	128	0	128	16.0
291.00	Unincorporated El Dorado County (Remainder Area)	0	12,413	15,726	238	254	647	0	647	19.2
292.00	Unincorporated El Dorado County (Remainder Area)	0	4,243	5,672	64	72	209	0	209	20.3
293.00	Unincorporated El Dorado County (Remainder Area)	0	1,294	1,289	36	41	90	0	90	14.4
294.00	Unincorporated El Dorado County (Remainder Area)	0	4,477	4,692	122	129	321	0	321	14.0
295.00	Unincorporated El Dorado County (Remainder Area)	0	62,264	4,926	22,499	110	282	1,540	1,822	34.2
296.00	El Dorado Diamond Springs	0	52,128	6,599	9,732	188	496	729	1,225	42.6

VMT Summary by Jurisdiction - 2040 Baseline Scenario

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
297.00	Unincorporated El Dorado County (Remainder Area)	0	2,262	2,673	62	79	208	0	208	10.9
298.00	Unincorporated El Dorado County (Remainder Area)	0	2,829	3,081	71	79	208	0	208	13.6
299.00	Unincorporated El Dorado County (Remainder Area)	0	4,994	5,716	112	114	293	0	293	17.0
300.00	Unincorporated El Dorado County (Remainder Area)	0	1,728	1,917	41	45	116	0	116	14.9
301.00	Unincorporated El Dorado County (Remainder Area)	0	624	549	41	20	44	3	47	13.4
302.00	Unincorporated El Dorado County (Remainder Area)	0	3,867	2,605	208	89	194	10	204	18.9
303.00	El Dorado Diamond Springs	0	4,188	2,682	443	106	228	28	255	16.4
304.00	El Dorado Diamond Springs	0	8,292	283	2,652	12	26	269	296	28.1
305.00	El Dorado Diamond Springs	0	10,709	0	4,971	1	2	536	539	19.9
306.00	El Dorado Diamond Springs	0	7,895	3,170	1,348	128	275	110	386	20.5
307.00	El Dorado Diamond Springs	0	2,949	2,816	92	112	257	0	257	11.5
308.00	El Dorado Diamond Springs	0	239	245	6	12	28	0	28	8.7
309.00	El Dorado Diamond Springs	0	808	720	26	34	74	0	74	10.9
310.00	El Dorado Diamond Springs	0	13,788	638	2,504	29	66	220	286	48.2
311.00	El Dorado Diamond Springs	0	3,547	1,728	438	75	164	33	197	18.0
312.00	El Dorado Diamond Springs	0	9,915	6,814	976	310	711	71	782	12.7
313.00	El Dorado Diamond Springs	0	23,526	3,405	7,013	71	178	534	712	33.0
314.00	El Dorado Diamond Springs	0	10,542	2,505	1,454	100	249	103	352	30.0
315.00	Outside of County	0	0	0	0	0	0	0	0	-
316.00	El Dorado Diamond Springs	0	674	642	22	31	68	0	68	10.0
317.00	El Dorado Diamond Springs	0	140	126	4	8	17	0	17	8.0
318.00	Unincorporated El Dorado County (Remainder Area)	0	8,111	4,743	732	182	452	41	493	16.4
319.00	El Dorado Diamond Springs	0	1,396	1,289	45	57	143	0	143	9.8
320.00	Unincorporated El Dorado County (Remainder Area)	0	4,885	1,581	810	19	48	61	109	44.7
321.00	Unincorporated El Dorado County (Remainder Area)	0	5,212	6,158	137	116	295	2	297	17.5
322.00	Unincorporated El Dorado County (Remainder Area)	0	10,673	10,591	570	242	623	26	649	16.5
323.00	Unincorporated El Dorado County (Remainder Area)	0	8,272	3,756	1,838	67	172	139	311	26.6
324.00	Unincorporated El Dorado County (Remainder Area)	0	7,025	3,631	697	73	183	39	222	31.7
325.00	Unincorporated El Dorado County (Remainder Area)	0	717	836	16	20	51	0	51	14.1
326.00	Unincorporated El Dorado County (Remainder Area)	0	2,083	2,471	49	57	145	0	145	14.4
327.00	Placerville	0	3,209	3,505	82	84	210	0	210	15.3
328.00	Unincorporated El Dorado County (Remainder Area)	0	696	793	16	19	48	0	48	14.6
329.00	Placerville	0	4,820	4,856	140	156	360	0	360	13.4
330.00	Unincorporated El Dorado County (Remainder Area)	0	3,484	3,705	94	109	273	0	273	12.8
331.00	Unincorporated El Dorado County (Remainder Area)	0	6,120	6,990	140	130	325	0	325	18.8
332.00	Unincorporated El Dorado County (Remainder Area)	0	1,432	1,528	38	47	105	0	105	13.6
333.00	Unincorporated El Dorado County (Remainder Area)	0	3,938	4,510	87	91	225	0	225	17.5
334.00	Unincorporated El Dorado County (Remainder Area)	0	1,640	1,002	256	26	58	18	76	21.5
335.00	Unincorporated El Dorado County (Remainder Area)	0	2,801	3,021	73	76	163	0	163	17.2
336.00	Unincorporated El Dorado County (Remainder Area)	0	1,045	1,118	26	30	66	0	66	15.8
337.00	Unincorporated El Dorado County (Remainder Area)	0	10,198	6,044	1,758	124	304	128	432	23.6
338.00	Unincorporated El Dorado County (Remainder Area)	0	13,834	15,709	397	350	900	11	911	15.2
339.00	Unincorporated El Dorado County (Remainder Area)	0	9,273	12,029	145	224	508	0	508	18.3
340.00	Unincorporated El Dorado County (Remainder Area)	0	8,019	5,276	510	95	202	30	232	34.5
341.00	Unincorporated El Dorado County (Remainder Area)	0	1,630	1,556	172	34	75	16	91	18.0
342.00	Unincorporated El Dorado County (Remainder Area)	0	2,375	2,733	49	48	123	0	123	19.2
343.00	Unincorporated El Dorado County (Remainder Area)	0	4,958	5,767	91	78	177	0	177	28.1
344.00	Unincorporated El Dorado County (Remainder Area)	0	5,861	6,947	107	92	208	0	208	28.1
345.00	Unincorporated El Dorado County (Remainder Area)	0	2,005	2,121	39	34	77	0	77	26.1
346.00	Unincorporated El Dorado County (Remainder Area)	0	1,267	1,247	28	23	51	0	51	24.8
347.00	Unincorporated El Dorado County (Remainder Area)	0	2,642	3,127	49	42	108	0	108	24.5
348.00	Unincorporated El Dorado County (Remainder Area)	0	2,505	2,468	59	48	107	0	107	23.5
349.00	Unincorporated El Dorado County (Remainder Area)	0	8,160	4,922	577	94	193	34	227	35.9
350.00	Unincorporated El Dorado County (Remainder Area)	0	987	1,147	17	20	45	0	45	21.8
351.00	Unincorporated El Dorado County (Remainder Area)	0	1,469	1,853	23	31	70	0	70	20.9
352.00	Unincorporated El Dorado County (Remainder Area)	0	2,102	2,701	31	38	86	0	86	24.4
353.00	Unincorporated El Dorado County (Remainder Area)	0	10,678	10,292	512	200	453	43	496	21.5
354.00	Unincorporated El Dorado County (Remainder Area)	0	7,011	4,699	456	68	154	43	197	35.6
355.00	Placerville	1	27,205	5,137	4,963	257	594	387	981	27.7
356.00	Placerville	1	2,711	2,556	91	109	235	0	235	11.6
357.00	Unincorporated El Dorado County (Remainder Area)	0	8,042	4,243	728	133	294	42	336	23.9
358.00	Placerville	0	10,297	3,363	1,630	128	283	123	406	25.4
359.00	Unincorporated El Dorado County (Remainder Area)	0	3,540	3,686	94	105	247	0	247	14.3
360.00	Unincorporated El Dorado County (Remainder Area)	0	4,180	4,550	98	97	228	0	228	18.3
361.00	Placerville	1	26,989	10,058	4,607	570	1,189	370	1,558	17.3
362.00	Placerville	1	46,670	3,856	7,966	194	457	616	1,073	43.5
363.00	Unincorporated El Dorado County (Remainder Area)	0	416	428	12	19	48	0	48	8.7
364.00	Placerville	0	4,535	3,718	415	173	439	28	466	9.7
365.00	El Dorado Diamond Springs	0	24,235	9,333	2,984	541	1,147	223	1,370	17.7
366.00	El Dorado Diamond Springs	0	10,584	1,561	1,636	108	232	146	378	28.0
367.00	El Dorado Diamond Springs	0	7,168	0	3,549	0	0	398	398	18.0
368.00	El Dorado Diamond Springs	0	4,905	1,336	823	68	157	81	238	20.6
369.00	El Dorado Diamond Springs	0	14,199	8,875	1,412	485	1,088	114	1,202	11.8
370.00	El Dorado Diamond Springs	0	6,930	78	2,913	0	0	317	317	21.9

VMT Summary by Jurisdiction - 2040 Baseline Scenario

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371.00	El Dorado Diamond Springs	0	2,152	2,077	61	69	155	0	155	13.9
372.00	El Dorado Diamond Springs	0	28,663	14,060	3,147	559	1,254	296	1,550	18.5
373.00	El Dorado Diamond Springs	0	556	494	18	27	62	0	62	9.0
374.00	El Dorado Diamond Springs	0	1,046	276	116	14	32	10	42	24.8
375.00	El Dorado Diamond Springs	0	361	329	11	15	34	0	34	10.5
376.00	El Dorado Diamond Springs	0	1,492	726	219	34	78	17	95	15.7
377.00	El Dorado Diamond Springs	0	723	318	170	14	32	16	48	15.0
378.00	El Dorado Diamond Springs	0	547	518	16	27	62	0	62	8.8
379.00	El Dorado Diamond Springs	0	941	874	29	48	111	0	111	8.5
380.00	El Dorado Diamond Springs	0	196	186	6	12	28	0	28	7.1
381.00	El Dorado Diamond Springs	0	115	111	3	7	16	0	16	7.2
382.00	El Dorado Diamond Springs	0	222	184	8	11	25	0	25	8.7
383.00	Unincorporated El Dorado County (Remainder Area)	0	2,357	2,392	64	80	179	0	179	13.1
384.00	El Dorado Diamond Springs	0	4,504	4,469	123	174	390	0	390	11.5
385.00	El Dorado Diamond Springs	0	14,274	13,898	540	600	1,346	14	1,360	10.5
386.00	El Dorado Diamond Springs	0	2,238	2,243	60	90	202	0	202	11.1
387.00	El Dorado Diamond Springs	0	3,281	744	471	36	81	44	124	26.4
388.00	El Dorado Diamond Springs	0	5,459	0	2,606	0	0	278	278	19.6
389.00	El Dorado Diamond Springs	0	5,903	19	2,148	2	5	240	245	24.1
390.00	El Dorado Diamond Springs	0	7,345	4,866	735	311	670	54	724	10.1
391.00	El Dorado Diamond Springs	0	6,028	144	968	11	24	92	116	52.0
392.00	El Dorado Diamond Springs	0	1,014	475	89	28	60	5	66	15.5
393.00	El Dorado Diamond Springs	0	25,639	4,760	3,793	281	645	288	932	27.5
394.00	El Dorado Diamond Springs	0	6,140	111	2,051	8	18	168	186	33.0
395.00	Placerville	1	80,005	1,459	29,650	98	206	2,613	2,819	28.4
396.00	El Dorado Diamond Springs	0	30,664	0	5,532	0	0	425	425	72.2
397.00	El Dorado Diamond Springs	0	1,453	905	120	50	109	7	116	12.5
398.00	El Dorado Diamond Springs	0	1,155	266	144	14	32	11	43	26.7
399.00	El Dorado Diamond Springs	0	959	834	33	43	99	0	99	9.7
400.00	El Dorado Diamond Springs	0	7,340	210	1,237	16	35	97	132	55.8
401.00	Placerville	0	26,880	942	4,574	57	121	337	458	58.7
402.00	El Dorado Diamond Springs	0	4,675	2,567	1,032	137	344	103	447	10.5
403.00	El Dorado Diamond Springs	0	31,547	2,590	12,686	124	267	906	1,174	26.9
404.00	El Dorado Diamond Springs	0	1,727	303	333	19	44	32	76	22.8
405.00	El Dorado Diamond Springs	0	1,669	148	251	9	21	21	41	40.2
406.00	El Dorado Diamond Springs	0	26,221	386	4,385	24	55	339	395	66.5
407.00	El Dorado Diamond Springs	0	16,201	554	3,223	39	84	285	369	43.9
408.00	El Dorado Diamond Springs	0	5,521	0	2,366	1	2	279	281	19.6
409.00	Placerville	0	37,977	3,517	8,041	162	410	610	1,019	37.3
410.00	El Dorado Diamond Springs	0	40,316	14,331	5,587	602	1,418	423	1,840	21.9
411.00	Placerville	1	55,481	5,299	11,419	335	793	982	1,775	31.3
412.00	Unincorporated El Dorado County (Remainder Area)	0	3,441	3,309	105	114	271	0	271	12.7
413.00	Placerville	0	4,918	4,594	170	199	472	1	473	10.4
414.00	El Dorado Diamond Springs	0	20,103	92	5,325	7	15	561	576	34.9
415.00	Unincorporated El Dorado County (Remainder Area)	0	437	320	42	18	38	4	42	10.3
416.00	El Dorado Diamond Springs	0	267	129	54	9	19	7	26	10.1
417.00	Placerville	1	22,868	912	4,798	55	124	424	548	41.8
418.00	Placerville	1	5,504	0	1,376	0	0	130	130	42.3
419.00	Placerville	1	6,891	0	1,208	0	0	112	112	61.6
420.00	Placerville	1	5,272	970	1,322	56	132	117	249	21.2
421.00	Placerville	1	2,553	1,466	406	81	191	28	219	11.7
422.00	Placerville	1	67,392	5,183	31,184	303	714	2,392	3,106	21.7
423.00	Unincorporated El Dorado County (Remainder Area)	0	448	391	26	21	49	1	50	9.0
424.00	Placerville	0	25,597	5,377	4,430	252	582	351	934	27.4
425.00	Placerville	0	67,430	28,934	8,086	1,390	3,090	730	3,820	17.7
426.00	Placerville	0	706	726	18	32	80	0	80	8.8
427.00	Unincorporated El Dorado County (Remainder Area)	0	3,813	4,038	100	102	255	0	255	15.0
428.00	Unincorporated El Dorado County (Remainder Area)	0	551	584	14	22	55	0	55	10.0
429.00	Unincorporated El Dorado County (Remainder Area)	0	1,193	1,395	35	35	87	0	87	13.8
430.00	Unincorporated El Dorado County (Remainder Area)	0	3,098	2,008	547	59	146	44	190	16.3
431.00	Placerville	1	13,596	511	2,247	28	59	167	226	60.1
432.00	Unincorporated El Dorado County (Remainder Area)	0	15,626	10,622	3,103	363	900	241	1,140	13.7
433.00	Placerville	1	16,918	10,023	2,268	678	1,398	175	1,572	10.8
434.00	Placerville	1	828	640	30	44	95	0	95	8.7
435.00	Placerville	1	1,290	671	231	47	100	27	127	10.2
436.00	Unincorporated El Dorado County (Remainder Area)	0	1,146	1,171	49	32	79	2	81	14.2
437.00	Unincorporated El Dorado County (Remainder Area)	0	5,360	5,919	131	147	371	0	371	14.5
438.00	Unincorporated El Dorado County (Remainder Area)	0	5,837	4,262	505	143	303	32	335	17.4
439.00	Unincorporated El Dorado County (Remainder Area)	0	9,608	4,644	1,525	169	359	90	449	21.4
440.00	Unincorporated El Dorado County (Remainder Area)	0	5,939	863	1,570	31	66	111	177	33.6
441.00	Placerville	1	399	393	11	15	35	0	35	11.4
442.00	Placerville	1	13,545	9,872	968	350	882	56	939	14.4
443.00	Unincorporated El Dorado County (Remainder Area)	0	1,946	1,882	56	59	125	0	125	15.5
444.00	Unincorporated El Dorado County (Remainder Area)	0	273	179	17	8	19	1	20	13.7

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445.00	Placerville	0	839	789	56	26	65	3	68	12.3
446.00	Placerville	1	4,234	763	694	28	65	53	119	35.7
447.00	Unincorporated El Dorado County (Remainder Area)	0	8,302	3,155	1,566	81	199	116	314	26.4
448.00	Placerville	0	1,804	2,034	52	64	161	0	161	11.2
449.00	Unincorporated El Dorado County (Remainder Area)	0	465	476	12	14	30	0	30	15.5
450.00	Unincorporated El Dorado County (Remainder Area)	0	2,337	2,203	75	84	180	0	180	13.0
451.00	Unincorporated El Dorado County (Remainder Area)	0	894	868	26	27	58	0	58	15.4
452.00	Placerville	0	6,873	3,649	920	150	321	66	387	17.7
453.00	Placerville	1	3,297	3,171	139	182	391	0	391	8.4
454.00	Unincorporated El Dorado County (Remainder Area)	0	543	478	19	28	59	0	59	9.2
455.00	Unincorporated El Dorado County (Remainder Area)	0	2,531	2,663	67	73	181	0	181	14.0
456.00	Unincorporated El Dorado County (Remainder Area)	0	1,775	1,772	50	51	109	0	109	16.2
457.00	Unincorporated El Dorado County (Remainder Area)	0	3,115	3,005	249	68	153	13	166	18.7
458.00	Placerville	0	11,360	1,923	1,822	71	157	130	287	39.6
459.00	Placerville	0	726	702	21	28	62	0	62	11.7
460.00	Unincorporated El Dorado County (Remainder Area)	0	823	792	23	22	47	0	47	17.4
461.00	Unincorporated El Dorado County (Remainder Area)	0	113	128	2	6	13	0	13	8.6
462.00	Unincorporated El Dorado County (Remainder Area)	0	2,602	1,238	402	31	67	24	91	28.7
463.00	Unincorporated El Dorado County (Remainder Area)	0	3,727	5,338	47	89	195	0	195	19.1
464.00	Unincorporated El Dorado County (Remainder Area)	0	2,789	3,416	47	55	129	0	129	21.7
465.00	Unincorporated El Dorado County (Remainder Area)	0	3,725	5,388	32	65	163	0	163	22.8
466.00	Unincorporated El Dorado County (Remainder Area)	0	3,077	3,406	113	65	143	7	150	20.6
467.00	Unincorporated El Dorado County (Remainder Area)	0	2,487	3,499	29	49	107	0	107	23.2
468.00	Unincorporated El Dorado County (Remainder Area)	0	5,812	6,924	96	128	263	0	263	22.1
469.00	Unincorporated El Dorado County (Remainder Area)	0	3,786	5,171	42	70	156	0	156	24.3
470.00	Unincorporated El Dorado County (Remainder Area)	0	1,666	2,153	23	33	72	0	72	23.0
471.00	Unincorporated El Dorado County (Remainder Area)	0	1,208	1,595	17	26	57	0	57	21.2
472.00	Unincorporated El Dorado County (Remainder Area)	0	1,206	1,631	17	26	57	0	57	21.1
473.00	Unincorporated El Dorado County (Remainder Area)	0	1,175	676	222	13	33	25	58	20.4
474.00	Unincorporated El Dorado County (Remainder Area)	0	1,758	2,037	35	42	95	0	95	18.5
475.00	Unincorporated El Dorado County (Remainder Area)	0	1,837	2,192	33	42	95	0	95	19.3
476.00	Unincorporated El Dorado County (Remainder Area)	0	4,009	899	523	16	41	34	75	53.4
477.00	Unincorporated El Dorado County (Remainder Area)	0	1,570	2,180	20	31	78	0	78	20.2
478.00	Unincorporated El Dorado County (Remainder Area)	0	1,224	1,437	24	30	66	0	66	18.4
479.00	Unincorporated El Dorado County (Remainder Area)	0	5,057	3,301	420	62	156	29	185	27.4
480.00	Unincorporated El Dorado County (Remainder Area)	0	1,693	2,440	28	31	68	1	69	24.5
481.00	Unincorporated El Dorado County (Remainder Area)	0	1,353	1,928	18	24	53	0	53	25.5
482.00	Unincorporated El Dorado County (Remainder Area)	0	6,439	8,493	87	102	226	0	226	28.5
483.00	Unincorporated El Dorado County (Remainder Area)	0	9,535	4,695	1,031	132	285	76	361	26.4
484.00	Unincorporated El Dorado County (Remainder Area)	0	8,636	4,829	1,170	104	267	118	384	22.5
485.00	Unincorporated El Dorado County (Remainder Area)	0	2,234	3,011	30	40	103	0	103	21.8
486.00	Unincorporated El Dorado County (Remainder Area)	0	5,286	7,069	75	110	249	0	249	21.3
487.00	Unincorporated El Dorado County (Remainder Area)	0	18,701	8,250	3,045	228	504	184	688	27.2
488.00	Unincorporated El Dorado County (Remainder Area)	0	5,732	7,282	104	125	283	0	283	20.3
489.00	Unincorporated El Dorado County (Remainder Area)	0	7,396	6,626	406	157	355	24	379	19.5
490.00	Unincorporated El Dorado County (Remainder Area)	0	1,515	1,805	31	35	86	0	86	17.6
491.00	Unincorporated El Dorado County (Remainder Area)	0	7,401	8,785	160	181	444	0	444	16.7
492.00	Unincorporated El Dorado County (Remainder Area)	0	8,812	3,449	1,038	76	188	72	259	34.0
493.00	Unincorporated El Dorado County (Remainder Area)	0	9,816	3,608	1,461	79	195	101	296	33.1
494.00	Unincorporated El Dorado County (Remainder Area)	0	6,332	2,995	757	71	174	55	229	27.7
495.00	Unincorporated El Dorado County (Remainder Area)	0	642	749	14	17	42	0	42	15.4
496.00	Unincorporated El Dorado County (Remainder Area)	0	7,203	4,221	709	94	232	52	284	25.3
497.00	Unincorporated El Dorado County (Remainder Area)	0	9,446	4,990	1,004	109	263	75	338	27.9
498.00	Unincorporated El Dorado County (Remainder Area)	0	3,590	4,033	175	78	176	13	189	19.0
499.00	Unincorporated El Dorado County (Remainder Area)	0	1,503	1,832	30	38	93	0	93	16.1
500.00	Unincorporated El Dorado County (Remainder Area)	0	5,290	1,094	1,164	11	24	97	121	43.6
501.00	Unincorporated El Dorado County (Remainder Area)	0	2,232	817	553	22	49	58	107	20.8
502.00	Unincorporated El Dorado County (Remainder Area)	0	7,254	8,928	139	147	349	0	349	20.8
503.00	Unincorporated El Dorado County (Remainder Area)	0	5,070	10	842	1	2	56	58	87.1
504.00	Unincorporated El Dorado County (Remainder Area)	0	13,658	5,066	1,629	140	313	103	416	32.8
505.00	Unincorporated El Dorado County (Remainder Area)	0	80	95	1	3	7	0	7	11.9
506.00	Unincorporated El Dorado County (Remainder Area)	0	995	1,020	35	28	64	1	65	15.4
507.00	Unincorporated El Dorado County (Remainder Area)	0	2,130	2,501	48	61	145	0	145	14.7
508.00	Unincorporated El Dorado County (Remainder Area)	0	4,878	2,870	1,160	85	184	114	298	16.4
509.00	Unincorporated El Dorado County (Remainder Area)	0	2,068	407	651	12	27	77	104	19.9
510.00	Unincorporated El Dorado County (Remainder Area)	0	3,520	2,933	223	92	200	15	215	16.3
511.00	Unincorporated El Dorado County (Remainder Area)	0	1,993	1,574	132	46	109	9	118	16.8
512.00	Unincorporated El Dorado County (Remainder Area)	0	1,909	2,176	43	45	107	0	107	17.9
513.00	Unincorporated El Dorado County (Remainder Area)	0	8,016	10,349	170	178	456	7	463	17.3
514.00	Unincorporated El Dorado County (Remainder Area)	0	31,462	43,123	374	714	1,830	0	1,830	17.2
515.00	Unincorporated El Dorado County (Remainder Area)	0	3,165	4,073	54	78	188	0	188	16.8
516.00	Unincorporated El Dorado County (Remainder Area)	0	7,404	10,018	101	162	391	0	391	18.9
517.00	Unincorporated El Dorado County (Remainder Area)	0	23,471	18,996	1,723	489	1,085	139	1,224	19.2
518.00	Unincorporated El Dorado County (Remainder Area)	0	13,133	12,367	799	325	745	53	799	16.4

VMT Summary by Jurisdiction - 2040 Baseline Scenario

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
519.00	Unincorporated El Dorado County (Remainder Area)	0	7,739	6,213	744	162	371	60	432	17.9
520.00	Unincorporated El Dorado County (Remainder Area)	0	13,964	12,163	1,168	296	678	99	778	18.0
521.00	Unincorporated El Dorado County (Remainder Area)	0	15,913	9,284	1,662	309	686	167	853	18.6
522.00	Unincorporated El Dorado County (Remainder Area)	0	4,836	5,854	167	96	236	9	245	19.7
523.00	Unincorporated El Dorado County (Remainder Area)	0	24,551	10,064	3,120	302	698	272	970	25.3
524.00	Unincorporated El Dorado County (Remainder Area)	0	19,198	8,822	2,532	214	495	207	702	27.3
525.00	Unincorporated El Dorado County (Remainder Area)	0	4,565	5,782	59	97	233	0	233	19.6
526.00	Unincorporated El Dorado County (Remainder Area)	0	3,206	4,031	56	55	142	0	142	22.6
527.00	Unincorporated El Dorado County (Remainder Area)	0	8,811	6,976	838	186	447	71	517	17.0
528.00	Unincorporated El Dorado County (Remainder Area)	0	51,708	63,975	888	1,061	2,556	51	2,607	19.8
529.00	Unincorporated El Dorado County (Remainder Area)	0	1,259	1,222	124	19	46	8	54	23.2
530.00	Unincorporated El Dorado County (Remainder Area)	0	13,300	17,586	223	226	551	0	551	24.2
531.00	Unincorporated El Dorado County (Remainder Area)	0	3,817	5,010	62	59	144	0	144	26.6
532.00	Unincorporated El Dorado County (Remainder Area)	0	3,640	4,570	64	64	156	0	156	23.4
533.00	Unincorporated El Dorado County (Remainder Area)	0	11,659	9,338	984	151	367	53	420	27.8
534.00	Unincorporated El Dorado County (Remainder Area)	0	4,280	5,431	71	69	168	0	168	25.5
535.00	Unincorporated El Dorado County (Remainder Area)	0	5,371	6,745	84	95	245	0	245	21.9
536.00	Unincorporated El Dorado County (Remainder Area)	0	5,499	6,973	82	106	273	0	273	20.1
537.00	Unincorporated El Dorado County (Remainder Area)	0	10,964	14,381	138	208	536	0	536	20.4
538.00	Unincorporated El Dorado County (Remainder Area)	0	15,597	7,381	1,837	159	382	137	519	30.0
539.00	Unincorporated El Dorado County (Remainder Area)	0	13,553	1,922	1,903	11	27	142	169	80.2
540.00	Unincorporated El Dorado County (Remainder Area)	0	9,633	0	1,686	0	0	132	132	72.8
541.00	Unincorporated El Dorado County (Remainder Area)	0	2,568	840	299	18	43	24	67	38.2
542.00	Unincorporated El Dorado County (Remainder Area)	0	6,153	2,205	963	55	130	76	206	29.9
543.00	Unincorporated El Dorado County (Remainder Area)	0	32,304	1,673	6,353	50	118	368	486	66.4
544.00	Unincorporated El Dorado County (Remainder Area)	0	2,506	2,672	63	58	137	0	137	18.2
545.00	Unincorporated El Dorado County (Remainder Area)	0	1,419	1,758	20	27	64	0	64	22.2
546.00	Unincorporated El Dorado County (Remainder Area)	0	7,991	10,043	115	131	310	0	310	25.8
547.00	Unincorporated El Dorado County (Remainder Area)	0	4,914	533	758	13	31	64	95	51.8
548.00	Unincorporated El Dorado County (Remainder Area)	0	15,338	17,576	597	405	960	27	987	15.5
549.00	Unincorporated El Dorado County (Remainder Area)	0	2,386	2,760	64	54	128	1	129	18.5
550.00	Unincorporated El Dorado County (Remainder Area)	0	6,354	1,696	996	40	100	62	162	39.1
551.00	Unincorporated El Dorado County (Remainder Area)	0	8,972	1,812	1,357	46	115	87	202	44.4
552.00	Unincorporated El Dorado County (Remainder Area)	0	1,059	454	106	11	26	6	32	33.1
553.00	Unincorporated El Dorado County (Remainder Area)	0	1,477	1,741	32	35	83	0	83	17.8
554.00	Unincorporated El Dorado County (Remainder Area)	0	6,782	7,946	189	185	438	5	443	15.3
555.00	Unincorporated El Dorado County (Remainder Area)	0	1,558	1,761	31	39	92	0	92	16.9
556.00	Unincorporated El Dorado County (Remainder Area)	0	4,503	5,469	80	89	211	0	211	21.4
557.00	Unincorporated El Dorado County (Remainder Area)	0	1,811	1,549	214	34	81	20	101	18.0
558.00	Unincorporated El Dorado County (Remainder Area)	0	2,005	2,503	27	40	96	0	96	20.9
559.00	Unincorporated El Dorado County (Remainder Area)	0	1,256	1,459	22	28	67	0	67	18.7
560.00	Unincorporated El Dorado County (Remainder Area)	0	5,897	1,198	1,745	28	66	172	238	24.7
561.00	Unincorporated El Dorado County (Remainder Area)	0	901	1,024	19	23	54	0	54	16.6
562.00	Unincorporated El Dorado County (Remainder Area)	0	3,761	4,664	55	73	175	0	175	21.4
563.00	Unincorporated El Dorado County (Remainder Area)	0	2,095	2,703	24	40	90	0	90	23.2
564.00	Unincorporated El Dorado County (Remainder Area)	0	1,035	1,214	24	27	62	0	62	16.6
565.00	Unincorporated El Dorado County (Remainder Area)	0	2,174	2,329	52	69	143	0	143	15.2
566.00	Unincorporated El Dorado County (Remainder Area)	0	3,929	3,986	140	112	264	5	269	14.6
567.00	Unincorporated El Dorado County (Remainder Area)	0	3,065	694	580	29	60	50	110	27.9
568.00	Unincorporated El Dorado County (Remainder Area)	0	2,929	754	551	26	61	47	108	27.1
569.00	Unincorporated El Dorado County (Remainder Area)	0	6,998	1,996	1,081	72	169	96	265	26.4
570.00	Unincorporated El Dorado County (Remainder Area)	0	8,639	1,184	1,851	53	109	169	278	31.1
571.00	Unincorporated El Dorado County (Remainder Area)	0	1,099	1,130	28	38	79	0	79	14.0
572.00	Unincorporated El Dorado County (Remainder Area)	0	4,739	1,232	962	39	90	89	178	26.6
573.00	Unincorporated El Dorado County (Remainder Area)	0	7,934	9,693	125	126	284	0	284	27.9
574.00	Unincorporated El Dorado County (Remainder Area)	0	4,398	5,592	54	88	204	1	205	21.5
575.00	Unincorporated El Dorado County (Remainder Area)	0	2,797	4,029	21	37	86	0	86	32.7
576.00	Unincorporated El Dorado County (Remainder Area)	0	2,740	856	322	19	43	33	76	36.1
577.00	Unincorporated El Dorado County (Remainder Area)	0	527	635	8	14	32	0	32	16.7
578.00	Unincorporated El Dorado County (Remainder Area)	0	25,033	38,183	125	451	1,016	0	1,016	24.6
579.00	Unincorporated El Dorado County (Remainder Area)	0	2,783	4,024	21	41	96	0	96	29.0
580.00	Unincorporated El Dorado County (Remainder Area)	0	2,454	3,330	26	42	98	0	98	24.9
581.00	Unincorporated El Dorado County (Remainder Area)	0	4,765	7,005	39	66	146	0	146	32.6
582.00	Unincorporated El Dorado County (Remainder Area)	0	13,111	992	1,606	15	37	65	102	128.6
583.00	Unincorporated El Dorado County (Remainder Area)	0	30,927	46,535	291	446	987	15	1,002	30.9
584.00	Unincorporated El Dorado County (Remainder Area)	0	2,103	2,052	106	22	47	6	53	39.8
585.00	Unincorporated El Dorado County (Remainder Area)	0	9,922	14,081	94	148	327	0	327	30.3
586.00	Unincorporated El Dorado County (Remainder Area)	0	3,736	2,865	258	56	105	10	115	32.5
587.00	Unincorporated El Dorado County (Remainder Area)	0	1,958	2,756	23	48	116	0	116	16.9
588.00	Unincorporated El Dorado County (Remainder Area)	0	15,965	22,673	145	348	892	0	892	17.9
589.00	Unincorporated El Dorado County (Remainder Area)	0	239	290	6	8	16	0	16	14.9
590.00	Unincorporated El Dorado County (Remainder Area)	0	819	1,034	14	23	55	0	55	14.9
591.00	Unincorporated El Dorado County (Remainder Area)	0	67	87	1	3	7	0	7	9.3
592.00	Unincorporated El Dorado County (Remainder Area)	0	14,394	9,407	1,281	361	801	146	947	15.2

VMT Summary by Jurisdiction - 2040 Baseline Scenario

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593.00	Unincorporated El Dorado County (Remainder Area)	0	6,848	5,889	529	155	370	56	426	16.1
594.00	Unincorporated El Dorado County (Remainder Area)	0	11,293	15,053	163	316	754	0	754	15.0
595.00	Unincorporated El Dorado County (Remainder Area)	0	4,038	2,673	251	46	104	27	131	30.8
596.00	Unincorporated El Dorado County (Remainder Area)	0	5,258	3,064	493	59	151	48	199	26.4
597.00	Unincorporated El Dorado County (Remainder Area)	0	12,298	3,074	1,753	122	271	214	485	25.3
598.00	Unincorporated El Dorado County (Remainder Area)	0	8,757	386	1,441	15	33	166	200	43.9
599.00	Unincorporated El Dorado County (Remainder Area)	0	622	765	12	18	40	0	40	15.6
600.00	Unincorporated El Dorado County (Remainder Area)	0	11,409	8,190	1,044	217	481	94	575	19.8
601.00	Unincorporated El Dorado County (Remainder Area)	0	1,335	1,856	5	11	24	0	24	54.9
602.00	Unincorporated El Dorado County (Remainder Area)	0	1,851	116	235	3	6	9	15	126.6
603.00	Unincorporated El Dorado County (Remainder Area)	0	3,571	470	923	12	23	32	55	65.5
604.00	Unincorporated El Dorado County (Remainder Area)	0	3,261	634	449	17	31	13	44	74.4
605.00	Unincorporated El Dorado County (Remainder Area)	0	2,835	914	807	21	46	29	75	38.0
606.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
607.00	Unincorporated El Dorado County (Remainder Area)	0	3,216	4,498	12	19	47	0	47	68.8
608.00	Unincorporated El Dorado County (Remainder Area)	0	30	41	0	1	2	0	2	13.8
609.00	Unincorporated El Dorado County (Remainder Area)	0	9,749	1,528	1,526	37	80	61	141	69.0
610.00	El Dorado Hills	0	60,722	137	28,105	0	0	2,725	2,725	22.3
611.00	El Dorado Hills	0	59,180	34,796	8,774	1,023	2,614	672	3,286	18.0
612.00	El Dorado Hills	0	128,483	1,046	62,207	0	0	5,778	5,778	22.2
613.00	Unincorporated El Dorado County (Remainder Area)	0	119	102	18	4	10	3	13	9.3
614.00	El Dorado Hills	0	6,284	7,424	137	211	550	0	550	11.4
615.00	El Dorado Hills	0	10,543	8,776	725	211	550	60	609	17.3
616.00	El Dorado Hills	0	1,568	1,862	33	53	138	0	138	11.4
617.00	El Dorado Hills	0	13,981	9,746	904	187	553	89	642	21.8
618.00	El Dorado Hills	0	4,693	0	2,128	0	0	265	265	17.7
619.00	El Dorado Hills	0	3,485	0	566	0	0	60	60	58.1
620.00	El Dorado Hills	0	17,466	3,715	1,583	0	0	178	178	98.1
621.00	El Dorado Hills	0	12,558	16,345	218	326	963	0	963	13.0
622.00	El Dorado Hills	0	19,304	18,056	1,112	370	1,094	90	1,184	16.3
623.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
624.00	El Dorado Hills	0	15,290	14,513	684	309	918	54	972	15.7
625.00	El Dorado Hills	0	182	0	105	0	0	12	12	15.2
626.00	Unincorporated El Dorado County (Remainder Area)	0	42,077	4,866	6,506	164	386	554	939	44.8
627.00	Unincorporated El Dorado County (Remainder Area)	0	59,517	0	11,017	0	0	966	966	61.6
628.00	Unincorporated El Dorado County (Remainder Area)	0	19,745	23,460	458	515	1,322	0	1,322	14.9
629.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
630.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
631.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
632.00	Unincorporated El Dorado County (Remainder Area)	0	1,660	2,025	33	53	138	0	138	12.0
633.00	Unincorporated El Dorado County (Remainder Area)	0	7,027	8,434	150	211	550	0	550	12.8
634.00	Unincorporated El Dorado County (Remainder Area)	0	7,361	8,924	151	212	552	0	552	13.3
635.00	Unincorporated El Dorado County (Remainder Area)	0	3,605	4,362	72	106	276	0	276	13.1
636.00	Unincorporated El Dorado County (Remainder Area)	0	6,042	8,294	136	212	556	0	556	10.9
637.00	Unincorporated El Dorado County (Remainder Area)	0	9,445	11,545	188	265	695	0	695	13.6
638.00	Unincorporated El Dorado County (Remainder Area)	0	1,274	1,595	22	36	94	0	94	13.5
639.00	Unincorporated El Dorado County (Remainder Area)	0	2,735	3,343	52	72	189	0	189	14.5
640.00	Unincorporated El Dorado County (Remainder Area)	0	9,539	11,832	183	272	713	0	713	13.4
641.00	Unincorporated El Dorado County (Remainder Area)	0	2,759	3,405	52	72	189	0	189	14.6
642.00	Unincorporated El Dorado County (Remainder Area)	0	36,495	38,459	1,582	926	2,421	96	2,517	14.5
643.00	Unincorporated El Dorado County (Remainder Area)	0	9,281	11,512	180	257	672	0	672	13.8
644.00	Unincorporated El Dorado County (Remainder Area)	0	3,071	3,879	54	90	238	0	238	12.9
645.00	Unincorporated El Dorado County (Remainder Area)	0	21,188	24,962	914	495	1,311	56	1,367	15.5
646.00	Unincorporated El Dorado County (Remainder Area)	0	7,088	8,875	124	180	477	0	477	14.9
647.00	Unincorporated El Dorado County (Remainder Area)	0	1,499	1,883	26	45	119	0	119	12.6
648.00	Unincorporated El Dorado County (Remainder Area)	0	3,880	2,218	512	45	119	42	161	24.1
649.00	Unincorporated El Dorado County (Remainder Area)	0	4,695	2,830	29	45	119	0	119	39.4
650.00	Outside of County	0	2,924,327	1,494,977	488,244	0	0	0	0	-
651.00	Outside of County	0	29,889	17,048	4,074	0	0	0	0	-
652.00	Outside of County	0	0	0	0	0	0	0	0	-
653.00	Outside of County	0	418,098	187,954	51,242	0	0	0	0	-
654.00	Outside of County	0	41,830	9,395	2,400	0	0	0	0	-
655.00	Outside of County	0	352,832	120,373	33,664	0	0	0	0	-
656.00	Outside of County	0	56,354	18,723	6,997	0	0	0	0	-
657.00	Outside of County	0	196,519	9,096	3,547	0	0	0	0	-
658.00	Outside of County	0	0	0	0	0	0	0	0	-
659.00	Outside of County	0	5,729	3,013	928	0	0	0	0	-
660.00	Outside of County	0	181,521	102,048	33,425	0	0	0	0	-
661.00	Outside of County	0	148,492	79,165	24,191	0	0	0	0	-
662.00	Outside of County	0	710,514	374,713	120,676	0	0	0	0	-
663.00	Outside of County	0	733,804	259,751	80,292	0	0	0	0	-
664.00	Outside of County	0	451,825	247,011	65,947	0	0	0	0	-
665.00	Outside of County	0	221,136	97,356	35,746	0	0	0	0	-
666.00	Outside of County	0	102,261	56,553	17,165	0	0	0	0	-

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667.00	Outside of County	0	0	0	0	0	0	0	0	-
668.00	Outside of County	0	535,637	361,820	0	0	0	0	0	-
669.00	Outside of County	0	0	0	0	0	0	0	0	-
670.00	Outside of County	0	0	0	0	0	0	0	0	-
671.00	Outside of County	0	203,230	110,554	30,430	0	0	0	0	-
672.00	Outside of County	0	38,760	38,854	0	0	0	0	0	-
673.00	Outside of County	0	33,691	16,694	0	0	0	0	0	-
674.00	Outside of County	0	405,139	27,678	0	0	0	0	0	-

VMT Summary by Jurisdiction - 2018 Baseline Scenario (Plus Project)

	VMT Estimates			VMT Efficiency Metrics			Population Details				
Jurisdiction	Total OD VMT	Home-based PA VMT	Home-based Work PA VMT	Total VMT per Service Population	Home-based VMT per Capita	Home-based Work VMT per Employee	Total Households	Total Population	Total Employment	Total Service Population	Persons Per Household
City of Placerville	299,398	68,353	90,773	21.1	10.4	11.9	2,914	6,581	7,639	14,220	2.26
Unincorporated El Dorado County	3,865,004	3,277,660	437,800	21.4	22.5	12.5	58,291	145,645	34,976	180,621	2.50
629	33,672	0	12,554	19.8		7.4	0	0	1,704	1,704	
630	138,668	190,636	1,420	14.5	20.0		3,236	9,537	0	9,537	2.95
631	10,354	0	1,462	70.9		10.0	0	0	146	146	
				Threshold	19.3	11.1					

VMT Summary by Jurisdiction - 2018 Baseline Scenario (Plus Project)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
1.00	Unincorporated El Dorado County (Remainder Area)	0	4,170	2,581	331	46	75	16	91	46.0
2.00	Unincorporated El Dorado County (Remainder Area)	0	22,838	31,474	469	525	1,185	34	1,219	18.7
3.00	Unincorporated El Dorado County (Remainder Area)	0	2,965	3,766	43	34	88	0	88	33.8
4.00	Unincorporated El Dorado County (Remainder Area)	0	1,535	1,525	52	16	34	2	36	42.9
5.00	Unincorporated El Dorado County (Remainder Area)	0	2,861	4,028	27	33	73	0	73	39.4
6.00	Unincorporated El Dorado County (Remainder Area)	0	12,278	15,705	357	270	646	9	655	18.8
7.00	Unincorporated El Dorado County (Remainder Area)	0	25,687	33,131	1,005	516	1,119	71	1,190	21.6
8.00	Unincorporated El Dorado County (Remainder Area)	0	2,723	784	757	14	36	60	96	28.4
9.00	Unincorporated El Dorado County (Remainder Area)	0	28,804	33,451	1,720	482	1,240	117	1,357	21.2
10.00	Outside of County	0	0	0	0	0	0	0	0	-
11.00	Outside of County	0	0	0	0	0	0	0	0	-
12.00	Outside of County	0	39,917	31,472	1,865	663	1,741	96	1,837	21.7
13.00	Outside of County	0	31,259	35,999	679	775	1,995	0	1,995	15.7
14.00	Outside of County	0	64,687	72,318	1,574	1,502	4,068	32	4,100	15.8
15.00	Outside of County	0	499	529	10	10	23	0	23	22.2
16.00	Outside of County	0	55,652	9,047	7,449	149	378	434	812	68.5
17.00	Outside of County	0	0	0	0	0	0	0	0	-
18.00	Outside of County	0	1,560	616	67	41	116	0	116	13.4
19.00	Outside of County	0	0	0	0	0	0	0	0	-
20.00	Outside of County	0	220	18	120	1	1	5	6	36.7
21.00	Outside of County	0	5,243	50	2,574	1	2	112	114	46.0
22.00	Outside of County	0	2,251	268	587	2	6	23	29	77.6
23.00	Outside of County	0	59,818	24,166	6,410	101	273	244	517	115.8
24.00	Outside of County	0	48	30	1	1	1	0	1	47.7
25.00	Outside of County	0	0	0	0	0	0	0	0	-
26.00	Outside of County	0	0	0	0	0	0	0	0	-
27.00	Outside of County	0	1,321	264	507	2	6	22	28	47.2
28.00	Outside of County	0	12,564	14,667	384	123	332	6	338	37.2
29.00	Outside of County	0	7,862	9,128	246	72	192	5	197	39.9
30.00	Outside of County	0	6,079	0	3,250	0	0	133	133	45.7
31.00	Outside of County	0	5,565	4,114	1,060	44	94	45	139	40.0
32.00	Outside of County	0	25,004	6,811	623	676	1,526	0	1,526	16.4
33.00	Outside of County	0	0	0	0	0	0	0	0	-
34.00	Outside of County	0	8,755	9,478	595	75	191	16	207	42.3
35.00	Outside of County	0	0	0	0	0	0	0	0	-
36.00	Outside of County	0	0	0	0	0	0	0	0	-
37.00	Outside of County	0	5,091	0	2,706	0	0	178	178	28.6
38.00	Outside of County	0	0	0	0	0	0	0	0	-
39.00	Outside of County	0	24,525	22,418	3,319	666	1,569	227	1,796	13.7
40.00	Outside of County	0	114,698	26,237	19,016	916	2,079	1,839	3,918	29.3
41.00	Outside of County	0	31,118	26,591	4,000	544	1,271	203	1,474	21.1
42.00	Outside of County	0	0	0	0	0	0	0	0	-
43.00	Outside of County	0	53,380	62,308	1,223	828	2,045	0	2,045	26.1
44.00	Outside of County	0	79,658	76,462	3,325	1,069	2,614	95	2,709	29.4
45.00	Outside of County	0	102,250	24,324	14,667	906	2,057	1,357	3,414	30.0
46.00	Outside of County	0	0	0	0	0	0	0	0	-
47.00	Outside of County	0	101,462	0	43,174	0	0	2,398	2,398	42.3
48.00	Outside of County	0	71,030	70,610	3,436	1,203	3,068	121	3,189	22.3
49.00	Outside of County	0	153,478	0	78,977	0	0	4,642	4,642	33.1
50.00	Outside of County	0	121,025	84,791	19,555	1,025	2,430	826	3,256	37.2
51.00	Outside of County	0	128,338	69,261	18,470	1,768	4,253	1,237	5,490	23.4
52.00	Outside of County	0	46,399	25,728	4,519	297	667	240	907	51.2
53.00	Outside of County	0	114,022	86,383	8,566	1,335	3,452	377	3,829	29.8
54.00	Outside of County	0	95,472	36,466	39,643	476	1,153	1,827	2,980	32.0
55.00	Outside of County	0	83,585	38,450	12,720	675	1,583	800	2,383	35.1
56.00	Outside of County	0	34,909	39,667	1,011	820	1,933	4	1,937	18.0
57.00	Outside of County	0	163,324	0	115,167	0	0	7,375	7,375	22.1
58.00	Outside of County	0	44,029	24,170	6,921	465	1,160	388	1,548	28.4
59.00	Outside of County	0	424	110	175	2	4	9	13	32.6
60.00	Outside of County	0	206,479	17,321	104,650	238	478	4,236	4,714	43.8
61.00	Outside of County	0	273,743	190,477	22,639	2,205	5,227	797	6,024	45.4
62.00	Outside of County	0	55,390	317	27,056	4	8	1,150	1,158	47.8
63.00	Outside of County	0	113,880	18,264	52,090	340	756	3,083	3,839	29.7
64.00	Outside of County	0	79,874	59,892	11,619	865	2,156	560	2,716	29.4
65.00	Outside of County	0	10,442	11,476	221	136	338	0	338	30.9
66.00	Outside of County	0	62,710	50,638	4,358	826	1,950	172	2,122	29.5
67.00	Outside of County	0	10,554	0	2,848	0	0	178	178	59.3
68.00	Outside of County	0	55,496	32,483	11,984	616	1,314	679	1,993	27.8
69.00	Outside of County	0	143,986	92,000	39,231	1,588	4,122	2,320	6,442	22.4
70.00	Outside of County	0	211,181	834	128,170	0	0	6,956	6,956	30.4
71.00	Outside of County	0	107,468	109,799	4,949	1,231	3,088	121	3,209	33.5
72.00	Outside of County	0	255,581	374	135,402	0	0	5,133	5,133	49.8
73.00	Outside of County	0	122,762	0	81,159	0	0	5,627	5,627	21.8
74.00	Outside of County	0	177,163	21,853	82,452	435	1,022	4,728	5,750	30.8
75.00	Outside of County	0	106,709	78,409	28,001	1,936	4,401	1,866	6,267	17.0
76.00	Outside of County	0	42,139	23,447	5,069	508	1,352	297	1,649	25.6
77.00	Outside of County	0	160,318	77,062	34,122	1,155	2,810	1,659	4,469	35.9
78.00	Outside of County	0	89,409	0	24,176	0	0	1,567	1,567	57.1

VMT Summary by Jurisdiction - 2018 Baseline Scenario (Plus Project)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
79.00	Outside of County	0	970	0	0	0	0	20	20	48.5
80.00	Outside of County	0	50,599	0	24,189	0	0	1,410	1,410	35.9
81.00	Outside of County	0	161,581	0	84,304	0	0	4,951	4,951	32.6
82.00	Outside of County	0	56,414	0	30,304	0	0	1,787	1,787	31.6
83.00	Outside of County	0	0	0	0	0	0	0	0	-
84.00	Outside of County	0	64,948	48,291	6,696	1,226	2,817	405	3,222	20.2
85.00	Outside of County	0	71,625	59,604	4,786	1,295	3,246	253	3,499	20.5
86.00	Outside of County	0	111,910	74,557	11,661	1,968	4,487	754	5,241	21.4
87.00	Outside of County	0	103,539	66,153	13,107	2,114	4,344	800	5,144	20.1
88.00	Outside of County	0	86,825	47,729	11,996	1,099	2,679	762	3,441	25.2
89.00	Outside of County	0	11,365	0	4,738	0	0	293	293	38.8
90.00	Outside of County	0	53,898	0	11,038	0	0	592	592	91.0
91.00	Outside of County	0	123,934	16,188	50,887	383	961	4,100	5,061	24.5
92.00	Outside of County	0	59,656	56,165	3,283	1,139	2,709	141	2,850	20.9
93.00	Outside of County	0	0	0	0	0	0	0	0	-
94.00	Outside of County	0	432	478	9	6	15	0	15	28.8
95.00	Outside of County	0	934	0	446	0	0	27	27	34.6
96.00	Outside of County	0	343	0	175	0	0	12	12	28.6
97.00	Outside of County	0	110	102	2	2	4	0	4	27.5
98.00	Outside of County	0	76,441	351	27,202	10	25	2,289	2,314	33.0
99.00	Outside of County	0	50,645	27,299	11,932	791	1,944	958	2,902	17.5
100.00	Outside of County	0	6,018	6,985	130	84	203	0	203	29.6
101.00	Outside of County	0	12,150	0	6,136	0	0	320	320	38.0
102.00	Outside of County	0	6,009	5,233	1,012	51	153	53	206	29.2
103.00	Outside of County	0	58,809	67,787	1,409	910	2,200	0	2,200	26.7
104.00	Outside of County	0	0	0	0	0	0	0	0	-
105.00	Outside of County	0	0	0	0	0	0	0	0	-
106.00	Outside of County	0	2,877	0	1,463	0	0	70	70	41.1
107.00	Outside of County	0	85,644	0	46,024	0	0	3,135	3,135	27.3
108.00	Outside of County	0	439	0	204	0	0	15	15	29.3
109.00	Outside of County	0	19,054	0	4,297	0	0	238	238	80.1
110.00	Outside of County	0	64,230	8,802	29,202	205	426	1,610	2,036	31.6
111.00	Outside of County	0	136,454	12,336	25,275	350	728	1,151	1,879	72.6
112.00	Outside of County	0	194,921	38,708	42,366	747	1,946	2,117	4,063	48.0
113.00	Outside of County	0	91,438	0	47,263	0	0	4,022	4,022	22.7
114.00	Outside of County	0	41,106	30,350	7,757	770	1,950	660	2,610	15.7
115.00	Outside of County	0	0	0	0	0	0	0	0	-
116.00	Outside of County	0	0	0	0	0	0	0	0	-
117.00	Outside of County	0	87,105	32,962	23,732	401	1,031	1,492	2,523	34.5
118.00	Outside of County	0	92,100	83,932	3,764	2,313	5,898	187	6,085	15.1
119.00	Outside of County	0	170,961	7,916	75,304	214	522	6,545	7,067	24.2
120.00	Outside of County	0	204,125	0	58,441	0	0	4,131	4,131	49.4
121.00	Outside of County	0	167,596	57,525	22,350	1,642	4,261	1,724	5,985	28.0
122.00	Outside of County	0	67,515	20,255	12,425	619	1,530	1,071	2,601	26.0
123.00	Outside of County	0	53,099	7,536	10,694	200	529	855	1,384	38.4
124.00	Outside of County	0	81,480	54,953	5,648	1,240	2,628	328	2,956	27.6
125.00	Outside of County	0	60,565	10,869	9,343	389	801	781	1,582	38.3
126.00	Outside of County	0	15,857	4,388	1,798	136	279	129	408	38.8
127.00	Outside of County	0	38,779	34,355	2,037	800	1,693	117	1,810	21.4
128.00	Outside of County	0	86,932	40,435	11,108	999	2,062	767	2,829	30.7
129.00	Outside of County	0	43,015	46,649	823	994	2,246	0	2,246	19.1
130.00	Outside of County	0	31,855	9,920	4,076	369	740	416	1,156	27.5
131.00	Outside of County	0	76,270	20,681	13,691	607	1,234	1,278	2,512	30.4
132.00	Outside of County	0	34,120	20,573	4,025	407	894	260	1,154	29.6
133.00	Outside of County	0	134,528	63,813	14,843	2,087	5,211	1,475	6,686	20.1
134.00	Outside of County	0	70,798	32,169	18,533	1,075	2,460	1,492	3,952	17.9
135.00	Outside of County	0	43,736	0	24,041	0	0	2,114	2,114	20.7
136.00	Outside of County	0	31,916	28,617	1,650	669	1,669	82	1,751	18.2
137.00	Outside of County	0	139,561	104,327	9,437	2,349	6,735	673	7,408	18.8
138.00	El Dorado Diamond Springs	0	5,511	5,280	428	161	367	25	392	14.1
139.00	El Dorado Diamond Springs	0	3,997	1,748	667	62	135	55	190	21.0
140.00	El Dorado Diamond Springs	0	24,554	261	5,040	10	27	383	410	59.8
141.00	Unincorporated El Dorado County (Remainder Area)	0	2,104	1,998	80	21	49	2	51	41.4
142.00	Unincorporated El Dorado County (Remainder Area)	0	7,351	7,913	177	157	353	0	353	20.8
143.00	Unincorporated El Dorado County (Remainder Area)	0	3,591	3,706	133	93	209	4	213	16.8
144.00	Unincorporated El Dorado County (Remainder Area)	0	3,885	3,960	293	74	186	19	205	18.9
145.00	Unincorporated El Dorado County (Remainder Area)	0	800	827	23	30	69	0	69	11.7
146.00	El Dorado Diamond Springs	0	3,809	1,757	631	64	145	51	196	19.5
147.00	El Dorado Diamond Springs	0	4,286	4,490	135	159	359	0	359	11.9
148.00	Outside of County	0	189,337	256,544	7,072	2,250	5,293	137	5,430	34.9
149.00	Shingle Springs	0	6,777	1,710	1,419	37	98	112	210	32.3
150.00	Unincorporated El Dorado County (Remainder Area)	0	7,822	8,632	224	109	260	3	263	29.8
151.00	Unincorporated El Dorado County (Remainder Area)	0	1,475	2,038	20	23	67	0	67	22.0
152.00	Shingle Springs	0	9,812	6,183	1,409	122	315	99	414	23.7
153.00	Unincorporated El Dorado County (Remainder Area)	0	6,406	6,606	215	178	388	5	393	16.3
154.00	Unincorporated El Dorado County (Remainder Area)	0	3,277	3,320	215	84	196	16	212	15.4
155.00	Shingle Springs	0	2,678	3,150	56	62	161	0	161	16.6
156.00	Unincorporated El Dorado County (Remainder Area)	0	2,359	2,794	39	27	67	0	67	35.1

VMT Summary by Jurisdiction - 2018 Baseline Scenario (Plus Project)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
157.00	El Dorado Hills	0	11,362	14,771	184	274	807	0	807	14.1
158.00	Cameron Park	0	22,141	25,043	1,011	598	1,373	72	1,445	15.3
159.00	Cameron Park	0	12,776	16,592	229	340	878	1	879	14.5
160.00	Shingle Springs	0	7,864	9,698	158	194	501	0	501	15.7
161.00	El Dorado Hills	0	5,772	7,571	82	105	283	0	283	20.4
162.00	El Dorado Hills	0	71,644	99,902	950	1,503	4,414	0	4,414	16.2
163.00	El Dorado Hills	0	340	362	36	7	21	4	25	13.8
164.00	El Dorado Hills	0	27,385	0	14,015	0	0	1,232	1,232	22.2
165.00	El Dorado Hills	0	16,385	19,979	362	373	997	0	997	16.4
166.00	Outside of County	0	41,620	42,612	1,371	749	1,892	49	1,941	21.4
167.00	El Dorado Hills	0	50,655	53,234	2,102	1,297	2,904	55	2,959	17.1
168.00	El Dorado Hills	0	30,855	37,067	918	1,125	2,519	9	2,528	12.2
169.00	El Dorado Hills	0	100,219	149	20,607	0	0	1,688	1,688	59.4
170.00	El Dorado Hills	0	27,124	0	14,824	0	0	1,357	1,357	20.0
171.00	El Dorado Hills	0	14,280	13,029	745	441	790	20	810	17.6
172.00	El Dorado Hills	0	8,031	0	1,911	0	0	168	168	47.8
173.00	El Dorado Hills	0	29,244	0	6,216	0	0	547	547	53.5
174.00	Unincorporated El Dorado County (Remainder Area)	0	2,249	1,568	252	15	37	11	48	46.5
175.00	Unincorporated El Dorado County (Remainder Area)	0	963	887	97	11	26	5	31	30.8
176.00	Unincorporated El Dorado County (Remainder Area)	0	2,074	2,363	41	29	69	0	69	30.0
177.00	Unincorporated El Dorado County (Remainder Area)	0	835	714	118	10	25	7	32	26.2
178.00	Unincorporated El Dorado County (Remainder Area)	0	2,115	2,466	40	30	77	0	77	27.4
179.00	Unincorporated El Dorado County (Remainder Area)	0	9	15	0	1	3	0	3	3.4
180.00	El Dorado Hills	0	2,867	3,643	41	58	149	0	149	19.2
181.00	El Dorado Hills	0	1,306	8	571	1	3	58	61	21.5
182.00	Cameron Park	0	51,412	68,569	722	1,186	3,202	0	3,202	16.1
183.00	Unincorporated El Dorado County (Remainder Area)	0	6,107	7,486	107	152	355	0	355	17.2
184.00	Cameron Park	0	26,955	20,264	2,923	357	964	300	1,264	21.3
185.00	Cameron Park	0	5,264	6,644	83	149	342	0	342	15.4
186.00	Cameron Park	0	614	102	207	3	7	28	35	17.6
187.00	Cameron Park	0	10,114	9,950	938	239	549	85	634	16.0
188.00	Cameron Park	0	7,282	7,237	742	188	432	69	501	14.5
189.00	Unincorporated El Dorado County (Remainder Area)	0	2,923	3,733	44	37	104	0	104	28.2
190.00	Unincorporated El Dorado County (Remainder Area)	0	11,339	14,905	176	237	663	0	663	17.1
191.00	El Dorado Hills	0	829	1,107	11	19	53	0	53	15.6
192.00	El Dorado Hills	0	1,097	1,452	15	25	70	0	70	15.8
193.00	El Dorado Hills	0	8,963	4,493	2,512	100	253	246	499	18.0
194.00	El Dorado Hills	0	18,448	24,048	276	439	1,285	0	1,285	14.4
195.00	El Dorado Hills	0	1,622	533	190	10	26	14	40	41.1
196.00	Outside of County	0	46,099	51,601	1,517	923	2,503	82	2,585	17.8
197.00	El Dorado Hills	0	3,981	4,972	67	86	219	0	219	18.1
198.00	El Dorado Hills	0	58,699	47,203	4,624	887	2,482	453	2,935	20.0
199.00	El Dorado Hills	0	11,230	3,711	1,593	62	173	120	293	38.3
200.00	El Dorado Hills	0	3,378	334	766	7	18	67	85	39.8
201.00	El Dorado Hills	0	13,465	8,526	2,764	150	439	301	740	18.2
202.00	El Dorado Hills	0	42,072	41,808	2,368	737	2,062	199	2,261	18.6
203.00	El Dorado Hills	0	51,126	66,177	1,784	1,043	3,061	139	3,200	16.0
204.00	El Dorado Hills	0	19,278	20,489	612	362	1,067	41	1,108	17.4
205.00	El Dorado Hills	0	1,680	0	778	0	0	80	80	21.0
206.00	El Dorado Hills	0	2,128	2,775	30	52	153	0	153	13.9
207.00	El Dorado Hills	0	15,109	20,038	231	296	869	0	869	17.4
208.00	Unincorporated El Dorado County (Remainder Area)	0	415	564	5	9	26	0	26	15.7
209.00	El Dorado Hills	0	3,011	3,581	172	55	161	14	175	17.2
210.00	El Dorado Hills	0	5,755	7,614	86	125	366	0	366	15.7
211.00	Unincorporated El Dorado County (Remainder Area)	0	167	232	2	4	11	0	11	15.0
212.00	El Dorado Hills	0	1,882	2,543	25	35	103	0	103	18.3
213.00	Unincorporated El Dorado County (Remainder Area)	0	6,861	9,078	100	116	323	0	323	21.3
214.00	Unincorporated El Dorado County (Remainder Area)	0	689	925	10	8	19	0	19	35.6
215.00	El Dorado Hills	0	6,170	8,086	95	113	316	0	316	19.5
216.00	Unincorporated El Dorado County (Remainder Area)	0	400	521	5	5	12	0	12	33.1
217.00	Unincorporated El Dorado County (Remainder Area)	0	747	967	10	11	31	0	31	24.3
218.00	Unincorporated El Dorado County (Remainder Area)	0	1,736	2,258	25	28	78	0	78	22.2
219.00	Unincorporated El Dorado County (Remainder Area)	0	4,460	2,422	1,005	28	78	77	155	28.8
220.00	Unincorporated El Dorado County (Remainder Area)	0	585	770	8	9	25	0	25	23.4
221.00	El Dorado Hills	0	42,604	58,499	558	876	2,359	0	2,359	18.1
222.00	Cameron Park	0	2,662	1,420	251	26	71	26	97	27.6
223.00	Cameron Park	0	4,105	5,595	51	103	279	0	279	14.7
224.00	Unincorporated El Dorado County (Remainder Area)	0	5,481	6,474	343	95	258	29	287	19.1
225.00	Unincorporated El Dorado County (Remainder Area)	0	11,205	7,704	964	92	270	79	349	32.1
226.00	Cameron Park	0	9,959	8,785	746	131	384	76	460	21.6
227.00	Cameron Park	0	182	178	12	5	12	2	14	12.9
228.00	Cameron Park	0	23,572	31,558	498	705	1,703	20	1,723	13.7
229.00	El Dorado Hills	0	385	536	4	9	24	0	24	15.9
230.00	El Dorado Hills	0	559	776	5	12	35	0	35	15.9
231.00	Unincorporated El Dorado County (Remainder Area)	0	970	325	219	5	15	28	43	22.7
232.00	Unincorporated El Dorado County (Remainder Area)	0	2,124	2,848	28	33	92	0	92	23.1
233.00	Cameron Park	0	6,735	3,927	749	92	211	101	312	21.6
234.00	Cameron Park	0	46,932	41,965	4,401	1,004	2,306	587	2,893	16.2

VMT Summary by Jurisdiction - 2018 Baseline Scenario (Plus Project)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
235.00	Cameron Park	0	33,601	45,003	462	861	2,214	0	2,214	15.2
236.00	Cameron Park	0	17,876	24,320	288	468	1,204	9	1,213	14.7
237.00	Cameron Park	0	2,810	3,571	43	75	172	0	172	16.3
238.00	Cameron Park	0	15,158	13,952	1,957	280	676	199	875	17.3
239.00	Cameron Park	0	1,965	1,647	132	32	87	16	103	19.1
240.00	Unincorporated El Dorado County (Remainder Area)	0	7,441	9,948	104	127	345	0	345	21.6
241.00	Cameron Park	0	6,909	9,244	103	164	445	2	447	15.5
242.00	Cameron Park	0	819	1,122	9	22	60	0	60	13.7
243.00	Cameron Park	0	2,425	2,969	117	52	141	13	154	15.7
244.00	Unincorporated El Dorado County (Remainder Area)	0	1,393	1,805	23	22	57	0	57	24.6
245.00	Unincorporated El Dorado County (Remainder Area)	0	850	1,078	11	10	29	0	29	29.4
246.00	Unincorporated El Dorado County (Remainder Area)	0	4,532	6,179	58	63	182	0	182	24.8
247.00	Unincorporated El Dorado County (Remainder Area)	0	14,590	16,623	351	296	646	0	646	22.6
248.00	Unincorporated El Dorado County (Remainder Area)	0	11,017	13,466	225	185	441	0	441	25.0
249.00	Unincorporated El Dorado County (Remainder Area)	0	1,940	2,128	39	27	59	0	59	32.9
250.00	Unincorporated El Dorado County (Remainder Area)	0	3,290	3,957	63	53	123	0	123	26.7
251.00	Unincorporated El Dorado County (Remainder Area)	0	4,368	5,189	89	88	224	0	224	19.5
252.00	Unincorporated El Dorado County (Remainder Area)	0	20,315	25,148	413	434	1,130	0	1,130	18.0
253.00	Unincorporated El Dorado County (Remainder Area)	0	8,743	10,987	163	147	403	0	403	21.7
254.00	Unincorporated El Dorado County (Remainder Area)	0	6,183	7,397	126	116	295	0	295	21.0
255.00	Cameron Park	0	16,361	0	4,765	0	0	426	426	38.4
256.00	Cameron Park	0	44,835	1,972	13,008	47	121	1,042	1,163	38.5
257.00	Shingle Springs	0	29,807	6,905	10,731	153	389	960	1,349	22.1
258.00	Unincorporated El Dorado County (Remainder Area)	0	1,512	1,789	50	21	58	2	60	25.4
259.00	Unincorporated El Dorado County (Remainder Area)	0	1,844	2,301	30	30	78	0	78	23.6
260.00	Shingle Springs	0	5,571	59	1,757	2	4	146	150	37.0
261.00	Shingle Springs	0	15,106	4,219	3,510	92	252	282	534	28.3
262.00	Shingle Springs	0	12,965	5,004	2,922	121	308	238	546	23.8
263.00	Shingle Springs	0	6,100	5,027	518	108	296	35	331	18.4
264.00	Shingle Springs	0	4,706	2,306	609	50	137	45	182	25.9
265.00	Unincorporated El Dorado County (Remainder Area)	0	2,416	2,985	44	45	117	0	117	20.6
266.00	Unincorporated El Dorado County (Remainder Area)	0	2,363	2,159	117	42	92	4	96	24.7
267.00	Unincorporated El Dorado County (Remainder Area)	0	5,493	6,881	126	129	336	0	336	16.4
268.00	Unincorporated El Dorado County (Remainder Area)	0	3,277	3,761	131	69	180	6	186	17.6
269.00	Unincorporated El Dorado County (Remainder Area)	0	9,298	10,859	228	204	516	1	517	18.0
270.00	Unincorporated El Dorado County (Remainder Area)	0	2,463	3,193	42	44	113	0	113	21.8
271.00	Unincorporated El Dorado County (Remainder Area)	0	8,117	10,082	198	150	379	5	384	21.1
272.00	Unincorporated El Dorado County (Remainder Area)	0	6,794	7,788	356	131	347	23	370	18.4
273.00	Unincorporated El Dorado County (Remainder Area)	0	7,943	10,234	254	134	391	12	403	19.7
274.00	Unincorporated El Dorado County (Remainder Area)	0	15,366	13,937	1,305	233	618	99	717	21.4
275.00	Unincorporated El Dorado County (Remainder Area)	0	15,493	18,329	451	321	828	13	841	18.4
276.00	Cameron Park	0	9,025	11,023	258	224	541	12	553	16.3
277.00	Cameron Park	0	6,269	8,053	103	161	416	0	416	15.1
278.00	Unincorporated El Dorado County (Remainder Area)	0	5,277	6,898	83	91	247	0	247	21.4
279.00	Unincorporated El Dorado County (Remainder Area)	0	2,750	3,603	42	45	122	0	122	22.5
280.00	Unincorporated El Dorado County (Remainder Area)	0	1,774	2,212	32	37	98	0	98	18.1
281.00	Unincorporated El Dorado County (Remainder Area)	0	3,849	3,582	530	59	156	36	192	20.0
282.00	Unincorporated El Dorado County (Remainder Area)	0	1,740	2,159	32	39	103	0	103	16.8
283.00	Shingle Springs	0	15,740	3,655	2,014	0	0	161	161	97.8
284.00	Shingle Springs	0	1,606	1,100	295	25	65	25	90	17.9
285.00	Unincorporated El Dorado County (Remainder Area)	0	5,033	1,453	864	12	26	66	92	54.5
286.00	Unincorporated El Dorado County (Remainder Area)	0	1,787	2,329	29	36	95	0	95	18.7
287.00	Unincorporated El Dorado County (Remainder Area)	0	1,717	2,186	29	34	88	0	88	19.6
288.00	Unincorporated El Dorado County (Remainder Area)	0	2,633	3,333	45	51	135	0	135	19.5
289.00	Unincorporated El Dorado County (Remainder Area)	0	360	513	4	8	23	0	23	15.4
290.00	Unincorporated El Dorado County (Remainder Area)	0	2,420	3,232	37	44	129	0	129	18.8
291.00	Unincorporated El Dorado County (Remainder Area)	0	9,889	12,862	182	188	463	0	463	21.3
292.00	Unincorporated El Dorado County (Remainder Area)	0	4,673	6,474	65	72	210	0	210	22.2
293.00	Unincorporated El Dorado County (Remainder Area)	0	1,227	1,272	32	34	77	0	77	15.8
294.00	Unincorporated El Dorado County (Remainder Area)	0	4,003	4,607	94	97	247	0	247	16.2
295.00	Unincorporated El Dorado County (Remainder Area)	0	146,970	5,030	26,351	110	284	1,491	1,775	82.8
296.00	El Dorado Diamond Springs	0	9,554	6,657	840	117	305	56	361	26.5
297.00	Unincorporated El Dorado County (Remainder Area)	0	2,424	3,127	56	70	182	0	182	13.3
298.00	Unincorporated El Dorado County (Remainder Area)	0	3,280	3,779	74	79	206	0	206	15.9
299.00	Unincorporated El Dorado County (Remainder Area)	0	5,051	6,014	106	106	268	0	268	18.8
300.00	Unincorporated El Dorado County (Remainder Area)	0	1,188	1,376	26	28	71	0	71	16.8
301.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	1	2	0	2	0.1
302.00	Unincorporated El Dorado County (Remainder Area)	0	3,987	2,472	500	57	130	33	163	24.5
303.00	El Dorado Diamond Springs	0	3,459	3,639	90	106	231	0	231	15.0
304.00	El Dorado Diamond Springs	0	6,328	377	2,362	12	27	224	251	25.2
305.00	El Dorado Diamond Springs	0	7,593	0	3,141	1	2	283	285	26.6
306.00	El Dorado Diamond Springs	0	1,625	371	625	10	22	55	77	21.2
307.00	El Dorado Diamond Springs	0	617	490	38	16	36	2	38	16.2
308.00	El Dorado Diamond Springs	0	272	270	15	11	25	1	26	10.5
309.00	El Dorado Diamond Springs	0	531	429	52	14	32	4	36	14.8
310.00	El Dorado Diamond Springs	0	4,139	785	1,288	26	59	122	181	22.9
311.00	El Dorado Diamond Springs	0	8,555	1,185	2,114	38	87	158	245	35.0
312.00	El Dorado Diamond Springs	0	866	880	48	31	70	3	73	11.9

VMT Summary by Jurisdiction - 2018 Baseline Scenario (Plus Project)

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313.00	El Dorado Diamond Springs	0	23,524	4,221	6,919	38	99	506	605	38.9
314.00	El Dorado Diamond Springs	0	2,966	3,052	153	81	206	8	214	13.8
315.00	Outside of County	0	0	0	0	0	0	0	0	-
316.00	El Dorado Diamond Springs	0	341	342	9	13	30	0	30	11.5
317.00	El Dorado Diamond Springs	0	206	207	5	8	18	0	18	11.3
318.00	Unincorporated El Dorado County (Remainder Area)	0	4,301	4,619	137	128	326	2	328	13.1
319.00	El Dorado Diamond Springs	0	1,215	1,202	91	38	99	6	105	11.6
320.00	Unincorporated El Dorado County (Remainder Area)	0	5,197	2,239	541	18	44	39	83	62.3
321.00	Unincorporated El Dorado County (Remainder Area)	0	5,271	6,645	103	104	256	0	256	20.6
322.00	Unincorporated El Dorado County (Remainder Area)	0	7,438	7,947	557	153	387	33	420	17.7
323.00	Unincorporated El Dorado County (Remainder Area)	0	2,828	3,421	86	51	129	4	133	21.3
324.00	Unincorporated El Dorado County (Remainder Area)	0	3,624	4,737	62	64	165	0	165	22.0
325.00	Unincorporated El Dorado County (Remainder Area)	0	703	869	14	16	39	0	39	17.8
326.00	Unincorporated El Dorado County (Remainder Area)	0	2,162	2,704	54	49	121	1	122	17.8
327.00	Placerville	0	1,697	1,980	39	40	101	0	101	16.8
328.00	Unincorporated El Dorado County (Remainder Area)	0	845	989	18	19	48	0	48	17.7
329.00	Placerville	0	4,843	5,382	125	139	317	0	317	15.3
330.00	Unincorporated El Dorado County (Remainder Area)	0	2,688	3,082	66	73	184	0	184	14.6
331.00	Unincorporated El Dorado County (Remainder Area)	0	5,796	7,056	117	110	274	0	274	21.2
332.00	Unincorporated El Dorado County (Remainder Area)	0	1,534	1,780	36	47	104	0	104	14.7
333.00	Unincorporated El Dorado County (Remainder Area)	0	4,514	5,615	87	91	226	0	226	20.0
334.00	Unincorporated El Dorado County (Remainder Area)	0	3,817	1,160	1,331	26	58	110	168	22.8
335.00	Unincorporated El Dorado County (Remainder Area)	0	3,006	3,243	125	77	165	5	170	17.7
336.00	Unincorporated El Dorado County (Remainder Area)	0	1,217	1,453	25	30	70	0	70	17.3
337.00	Unincorporated El Dorado County (Remainder Area)	0	9,252	7,596	879	121	302	62	364	25.4
338.00	Unincorporated El Dorado County (Remainder Area)	0	14,048	17,676	373	322	831	14	845	16.6
339.00	Unincorporated El Dorado County (Remainder Area)	0	8,539	12,282	119	188	410	0	410	20.8
340.00	Unincorporated El Dorado County (Remainder Area)	0	6,859	8,500	226	93	205	14	219	31.3
341.00	Unincorporated El Dorado County (Remainder Area)	0	1,485	1,907	87	31	71	8	79	18.9
342.00	Unincorporated El Dorado County (Remainder Area)	0	2,622	3,251	49	48	124	0	124	21.2
343.00	Unincorporated El Dorado County (Remainder Area)	0	3,498	4,093	63	53	116	0	116	30.2
344.00	Unincorporated El Dorado County (Remainder Area)	0	3,773	4,480	68	55	120	0	120	31.4
345.00	Unincorporated El Dorado County (Remainder Area)	0	1,799	1,942	35	29	63	0	63	28.4
346.00	Unincorporated El Dorado County (Remainder Area)	0	1,276	1,396	24	22	49	0	49	25.8
347.00	Unincorporated El Dorado County (Remainder Area)	0	2,920	3,670	49	42	108	0	108	27.0
348.00	Unincorporated El Dorado County (Remainder Area)	0	2,812	2,995	62	49	110	0	110	25.5
349.00	Unincorporated El Dorado County (Remainder Area)	0	6,264	7,947	254	83	191	18	209	29.9
350.00	Unincorporated El Dorado County (Remainder Area)	0	1,174	1,671	17	22	48	0	48	24.4
351.00	Unincorporated El Dorado County (Remainder Area)	0	1,304	1,875	16	23	50	0	50	26.0
352.00	Unincorporated El Dorado County (Remainder Area)	0	1,855	2,619	24	29	63	0	63	29.3
353.00	Unincorporated El Dorado County (Remainder Area)	0	9,011	13,229	100	167	365	1	366	24.6
354.00	Unincorporated El Dorado County (Remainder Area)	0	5,577	3,546	753	53	116	77	193	28.9
355.00	Placerville	1	14,314	6,457	2,969	241	550	244	794	18.0
356.00	Placerville	1	2,487	2,611	74	91	195	0	195	12.8
357.00	Unincorporated El Dorado County (Remainder Area)	0	4,887	3,775	371	89	209	21	230	21.3
358.00	Placerville	0	5,874	2,900	1,198	81	190	98	288	20.4
359.00	Unincorporated El Dorado County (Remainder Area)	0	4,271	5,031	94	105	254	0	254	16.8
360.00	Unincorporated El Dorado County (Remainder Area)	0	5,334	5,734	241	98	237	10	247	21.6
361.00	Placerville	1	17,728	10,100	4,191	458	938	392	1,330	13.3
362.00	Placerville	1	46,506	5,836	11,019	252	591	876	1,467	31.7
363.00	Unincorporated El Dorado County (Remainder Area)	0	327	338	9	13	31	0	31	10.6
364.00	Placerville	0	4,030	3,482	418	138	328	30	358	11.2
365.00	El Dorado Diamond Springs	0	10,881	8,549	1,050	322	722	71	793	13.7
366.00	El Dorado Diamond Springs	0	380	271	43	15	31	4	35	10.8
367.00	El Dorado Diamond Springs	0	4,062	0	1,967	0	0	197	197	20.6
368.00	El Dorado Diamond Springs	0	1,582	1,707	48	68	149	0	149	10.6
369.00	El Dorado Diamond Springs	0	5,656	5,682	284	228	507	13	520	10.9
370.00	El Dorado Diamond Springs	0	6,442	0	3,044	0	0	303	303	21.3
371.00	El Dorado Diamond Springs	0	739	788	17	21	47	0	47	15.8
372.00	El Dorado Diamond Springs	0	16,922	7,784	2,412	195	433	211	644	26.3
373.00	El Dorado Diamond Springs	0	652	636	19	26	59	0	59	11.1
374.00	El Dorado Diamond Springs	0	414	325	29	13	28	2	30	13.6
375.00	El Dorado Diamond Springs	0	368	363	10	14	32	0	32	11.6
376.00	El Dorado Diamond Springs	0	968	921	57	34	77	3	80	12.1
377.00	El Dorado Diamond Springs	0	560	325	157	13	29	14	43	12.9
378.00	El Dorado Diamond Springs	0	665	644	19	27	59	0	59	11.2
379.00	El Dorado Diamond Springs	0	1,097	1,097	31	48	105	0	105	10.4
380.00	El Dorado Diamond Springs	0	256	242	7	12	26	0	26	9.7
381.00	El Dorado Diamond Springs	0	158	141	5	7	15	0	15	10.3
382.00	El Dorado Diamond Springs	0	261	235	8	11	24	0	24	10.8
383.00	Unincorporated El Dorado County (Remainder Area)	0	1,586	1,722	40	46	102	0	102	15.5
384.00	El Dorado Diamond Springs	0	3,641	3,925	95	120	267	0	267	13.7
385.00	El Dorado Diamond Springs	0	11,666	13,496	337	451	1,002	0	1,002	11.6
386.00	El Dorado Diamond Springs	0	2,645	2,886	67	90	200	0	200	13.2
387.00	El Dorado Diamond Springs	0	1,170	918	107	36	80	8	88	13.3
388.00	El Dorado Diamond Springs	0	6,368	0	3,073	0	0	303	303	21.0
389.00	El Dorado Diamond Springs	0	6,152	11	2,624	2	4	264	268	22.9
390.00	El Dorado Diamond Springs	0	4,301	3,850	360	182	379	23	402	10.7

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391.00	El Dorado Diamond Springs	0	2,187	194	549	11	23	54	77	28.4
392.00	El Dorado Diamond Springs	0	670	592	23	28	58	0	58	11.5
393.00	El Dorado Diamond Springs	0	8,999	6,267	1,006	268	605	68	673	13.4
394.00	El Dorado Diamond Springs	0	186	199	5	8	22	0	22	8.5
395.00	Placerville	1	62,513	1,559	26,175	74	166	2,253	2,419	25.8
396.00	El Dorado Diamond Springs	0	28,365	0	5,853	0	0	439	439	64.6
397.00	El Dorado Diamond Springs	0	1,328	1,248	70	50	114	3	117	11.4
398.00	El Dorado Diamond Springs	0	414	318	38	14	32	3	35	12.0
399.00	El Dorado Diamond Springs	0	1,123	1,118	32	43	97	0	97	11.6
400.00	El Dorado Diamond Springs	0	313	258	11	16	33	0	33	9.4
401.00	Placerville	0	9,044	647	2,638	28	63	213	276	32.8
402.00	El Dorado Diamond Springs	0	3,535	1,426	1,080	51	133	106	239	14.8
403.00	El Dorado Diamond Springs	0	23,976	3,663	7,810	124	258	654	912	26.3
404.00	El Dorado Diamond Springs	0	1,343	403	460	19	42	49	91	14.8
405.00	El Dorado Diamond Springs	0	168	147	5	9	20	0	20	8.5
406.00	El Dorado Diamond Springs	0	19,109	545	3,795	24	53	286	339	56.4
407.00	El Dorado Diamond Springs	0	9,604	20	3,388	1	2	309	311	30.9
408.00	El Dorado Diamond Springs	0	4,176	22	1,746	1	2	182	184	22.7
409.00	Placerville	0	18,780	2,978	5,670	104	248	445	693	27.1
410.00	El Dorado Diamond Springs	0	24,449	14,438	3,619	426	1,031	277	1,308	18.7
411.00	Placerville	1	50,913	6,045	13,390	298	712	1,271	1,983	25.7
412.00	Unincorporated El Dorado County (Remainder Area)	0	2,954	3,156	79	86	206	0	206	14.4
413.00	Placerville	0	3,592	3,728	103	126	301	0	301	11.9
414.00	El Dorado Diamond Springs	0	2,622	128	1,183	7	15	120	135	19.5
415.00	Unincorporated El Dorado County (Remainder Area)	0	432	436	12	18	40	0	40	10.7
416.00	El Dorado Diamond Springs	0	147	143	4	9	19	0	19	7.8
417.00	Placerville	1	9,746	1,078	2,886	45	114	278	392	24.9
418.00	Placerville	1	3,202	0	678	0	0	64	64	50.0
419.00	Placerville	1	3,312	0	851	0	0	85	85	39.0
420.00	Placerville	1	1,757	940	502	42	100	52	152	11.5
421.00	Placerville	1	1,654	1,547	98	68	163	5	168	9.9
422.00	Placerville	1	53,097	6,276	24,875	278	652	1,907	2,559	20.7
423.00	Unincorporated El Dorado County (Remainder Area)	0	457	473	12	20	48	0	48	9.6
424.00	Placerville	0	10,233	4,761	2,531	171	391	228	619	16.5
425.00	Placerville	0	53,250	32,005	5,997	1,167	2,617	563	3,180	16.7
426.00	Placerville	0	855	975	19	33	82	0	82	10.4
427.00	Unincorporated El Dorado County (Remainder Area)	0	3,947	4,490	93	93	232	0	232	17.0
428.00	Unincorporated El Dorado County (Remainder Area)	0	640	728	15	22	55	0	55	11.7
429.00	Unincorporated El Dorado County (Remainder Area)	0	1,304	1,631	35	35	83	0	83	15.8
430.00	Unincorporated El Dorado County (Remainder Area)	0	2,519	2,441	179	58	137	10	147	17.2
431.00	Placerville	1	1,798	463	660	22	45	60	105	17.1
432.00	Unincorporated El Dorado County (Remainder Area)	0	15,259	10,359	2,718	309	729	229	958	15.9
433.00	Placerville	1	10,389	9,481	712	481	1,041	36	1,077	9.6
434.00	Placerville	1	670	576	23	33	71	0	71	9.5
435.00	Placerville	1	1,188	635	245	36	77	27	104	11.4
436.00	Unincorporated El Dorado County (Remainder Area)	0	965	1,135	20	25	62	0	62	15.5
437.00	Unincorporated El Dorado County (Remainder Area)	0	5,354	5,596	250	117	287	12	299	17.9
438.00	Unincorporated El Dorado County (Remainder Area)	0	5,573	5,205	234	124	278	11	289	19.3
439.00	Unincorporated El Dorado County (Remainder Area)	0	5,403	6,243	173	156	350	3	353	15.3
440.00	Unincorporated El Dorado County (Remainder Area)	0	1,393	1,088	179	28	63	15	78	17.9
441.00	Placerville	1	360	370	9	12	29	0	29	12.6
442.00	Placerville	1	13,097	10,514	1,045	313	768	69	837	15.7
443.00	Unincorporated El Dorado County (Remainder Area)	0	1,456	1,549	36	38	85	0	85	17.1
444.00	Unincorporated El Dorado County (Remainder Area)	0	198	216	5	8	19	0	19	10.4
445.00	Placerville	0	1,040	887	152	23	56	11	67	15.4
446.00	Placerville	1	1,766	837	249	25	59	19	78	22.7
447.00	Unincorporated El Dorado County (Remainder Area)	0	3,228	3,914	67	76	189	0	189	17.0
448.00	Placerville	0	1,793	2,062	75	53	130	4	134	13.4
449.00	Unincorporated El Dorado County (Remainder Area)	0	540	566	14	14	30	0	30	18.0
450.00	Unincorporated El Dorado County (Remainder Area)	0	3,260	2,640	396	84	180	31	211	15.5
451.00	Unincorporated El Dorado County (Remainder Area)	0	977	1,020	26	27	58	0	58	16.9
452.00	Placerville	0	6,361	4,048	504	121	259	33	292	21.8
453.00	Placerville	1	2,901	3,029	121	145	310	1	311	9.3
454.00	Unincorporated El Dorado County (Remainder Area)	0	566	535	18	25	54	0	54	10.6
455.00	Unincorporated El Dorado County (Remainder Area)	0	2,701	3,021	67	73	172	0	172	15.7
456.00	Unincorporated El Dorado County (Remainder Area)	0	1,873	2,035	49	51	109	0	109	17.2
457.00	Unincorporated El Dorado County (Remainder Area)	0	2,799	3,026	131	62	137	5	142	19.7
458.00	Placerville	0	2,930	2,562	346	67	157	26	183	16.0
459.00	Placerville	0	308	348	7	11	26	0	26	11.9
460.00	Unincorporated El Dorado County (Remainder Area)	0	1,457	954	266	22	47	20	67	21.7
461.00	Unincorporated El Dorado County (Remainder Area)	0	1,569	219	623	6	14	59	73	21.5
462.00	Unincorporated El Dorado County (Remainder Area)	0	5,247	1,262	1,771	31	66	125	191	27.4
463.00	Unincorporated El Dorado County (Remainder Area)	0	4,444	7,211	40	85	194	0	194	22.9
464.00	Unincorporated El Dorado County (Remainder Area)	0	2,513	3,284	39	47	104	0	104	24.2
465.00	Unincorporated El Dorado County (Remainder Area)	0	3,937	5,669	116	58	134	16	150	26.3
466.00	Unincorporated El Dorado County (Remainder Area)	0	3,526	4,381	203	61	139	22	161	21.9
467.00	Unincorporated El Dorado County (Remainder Area)	0	2,478	3,832	24	39	89	0	89	27.8
468.00	Unincorporated El Dorado County (Remainder Area)	0	6,745	9,701	126	120	277	6	283	23.9

VMT Summary by Jurisdiction - 2018 Baseline Scenario (Plus Project)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
469.00	Unincorporated El Dorado County (Remainder Area)	0	4,075	5,647	137	59	131	15	146	27.9
470.00	Unincorporated El Dorado County (Remainder Area)	0	2,023	3,061	27	32	73	1	74	27.3
471.00	Unincorporated El Dorado County (Remainder Area)	0	1,472	2,030	54	23	53	6	59	25.2
472.00	Unincorporated El Dorado County (Remainder Area)	0	1,946	2,283	148	26	59	20	79	24.5
473.00	Unincorporated El Dorado County (Remainder Area)	0	601	570	30	10	23	2	25	24.0
474.00	Unincorporated El Dorado County (Remainder Area)	0	1,681	2,151	29	37	81	0	81	20.8
475.00	Unincorporated El Dorado County (Remainder Area)	0	1,786	2,359	28	38	83	0	83	21.5
476.00	Unincorporated El Dorado County (Remainder Area)	0	857	1,113	13	16	41	0	41	20.8
477.00	Unincorporated El Dorado County (Remainder Area)	0	2,027	2,538	125	30	69	15	84	24.1
478.00	Unincorporated El Dorado County (Remainder Area)	0	1,472	1,893	24	30	66	0	66	22.3
479.00	Unincorporated El Dorado County (Remainder Area)	0	4,059	3,112	445	51	118	37	155	26.3
480.00	Unincorporated El Dorado County (Remainder Area)	0	1,296	1,992	13	20	46	0	46	28.4
481.00	Unincorporated El Dorado County (Remainder Area)	0	1,332	2,021	15	20	44	0	44	30.3
482.00	Unincorporated El Dorado County (Remainder Area)	0	5,620	7,916	93	74	163	3	166	33.9
483.00	Unincorporated El Dorado County (Remainder Area)	0	4,403	5,170	175	115	249	9	258	17.1
484.00	Unincorporated El Dorado County (Remainder Area)	0	6,723	5,565	956	91	227	114	341	19.7
485.00	Unincorporated El Dorado County (Remainder Area)	0	1,055	1,513	11	15	37	0	37	28.2
486.00	Unincorporated El Dorado County (Remainder Area)	0	4,051	5,853	48	69	156	0	156	26.0
487.00	Unincorporated El Dorado County (Remainder Area)	0	11,787	11,187	747	221	519	36	555	21.3
488.00	Unincorporated El Dorado County (Remainder Area)	0	5,498	7,486	87	107	242	0	242	22.8
489.00	Unincorporated El Dorado County (Remainder Area)	0	6,844	6,976	669	133	300	58	358	19.1
490.00	Unincorporated El Dorado County (Remainder Area)	0	1,168	1,513	19	24	60	0	60	19.5
491.00	Unincorporated El Dorado County (Remainder Area)	0	7,346	9,005	179	160	399	3	402	18.3
492.00	Unincorporated El Dorado County (Remainder Area)	0	5,041	4,415	414	71	176	31	207	24.4
493.00	Unincorporated El Dorado County (Remainder Area)	0	5,114	4,533	374	72	178	26	204	25.0
494.00	Unincorporated El Dorado County (Remainder Area)	0	3,238	3,912	140	68	170	10	180	18.0
495.00	Unincorporated El Dorado County (Remainder Area)	0	650	841	11	16	40	0	40	16.3
496.00	Unincorporated El Dorado County (Remainder Area)	0	7,360	4,494	840	81	201	67	268	27.5
497.00	Unincorporated El Dorado County (Remainder Area)	0	4,293	5,643	102	88	224	3	227	18.9
498.00	Unincorporated El Dorado County (Remainder Area)	0	3,422	4,414	105	70	158	6	164	20.9
499.00	Unincorporated El Dorado County (Remainder Area)	0	1,330	1,764	22	30	75	0	75	17.8
500.00	Unincorporated El Dorado County (Remainder Area)	0	4,166	1,376	611	11	26	51	77	54.2
501.00	Unincorporated El Dorado County (Remainder Area)	0	2,805	1,002	778	22	49	83	132	21.3
502.00	Unincorporated El Dorado County (Remainder Area)	0	6,983	7,597	356	117	272	18	290	24.1
503.00	Unincorporated El Dorado County (Remainder Area)	0	4,192	0	1,022	1	2	76	78	53.6
504.00	Unincorporated El Dorado County (Remainder Area)	0	6,065	6,410	347	141	313	19	332	18.3
505.00	Unincorporated El Dorado County (Remainder Area)	0	74	85	1	3	7	0	7	11.1
506.00	Unincorporated El Dorado County (Remainder Area)	0	1,021	1,227	22	28	62	0	62	16.4
507.00	Unincorporated El Dorado County (Remainder Area)	0	2,738	2,346	397	50	116	37	153	17.9
508.00	Unincorporated El Dorado County (Remainder Area)	0	6,682	3,451	1,863	85	184	186	370	18.1
509.00	Unincorporated El Dorado County (Remainder Area)	0	390	421	22	12	27	2	29	13.6
510.00	Unincorporated El Dorado County (Remainder Area)	0	3,210	3,448	159	92	199	10	209	15.4
511.00	Unincorporated El Dorado County (Remainder Area)	0	2,733	1,854	364	45	105	33	138	19.9
512.00	Unincorporated El Dorado County (Remainder Area)	0	2,830	1,953	371	37	86	27	113	25.0
513.00	Unincorporated El Dorado County (Remainder Area)	0	7,377	10,644	85	142	354	0	354	20.8
514.00	Unincorporated El Dorado County (Remainder Area)	0	31,730	46,635	316	622	1,551	0	1,551	20.5
515.00	Unincorporated El Dorado County (Remainder Area)	0	3,577	4,727	106	69	176	8	184	19.5
516.00	Unincorporated El Dorado County (Remainder Area)	0	8,074	11,689	88	142	362	0	362	22.3
517.00	Unincorporated El Dorado County (Remainder Area)	0	18,830	20,914	1,130	388	857	101	958	19.6
518.00	Unincorporated El Dorado County (Remainder Area)	0	11,815	15,505	311	289	671	17	688	17.2
519.00	Unincorporated El Dorado County (Remainder Area)	0	5,826	7,708	193	142	330	12	342	17.1
520.00	Unincorporated El Dorado County (Remainder Area)	0	11,836	15,894	272	266	617	12	629	18.8
521.00	Unincorporated El Dorado County (Remainder Area)	0	10,751	12,886	589	290	641	60	701	15.3
522.00	Unincorporated El Dorado County (Remainder Area)	0	5,052	7,134	65	85	221	0	221	22.9
523.00	Unincorporated El Dorado County (Remainder Area)	0	16,374	10,151	1,940	240	588	206	794	20.6
524.00	Unincorporated El Dorado County (Remainder Area)	0	14,989	12,761	1,130	205	490	103	593	25.3
525.00	Unincorporated El Dorado County (Remainder Area)	0	4,880	7,134	45	85	199	0	199	24.5
526.00	Unincorporated El Dorado County (Remainder Area)	0	245	336	3	5	12	0	12	20.2
527.00	Unincorporated El Dorado County (Remainder Area)	0	7,693	9,358	366	162	380	38	418	18.4
528.00	Unincorporated El Dorado County (Remainder Area)	0	59,779	84,180	809	1,001	2,429	72	2,501	23.9
529.00	Unincorporated El Dorado County (Remainder Area)	0	916	1,145	13	15	36	0	36	25.3
530.00	Unincorporated El Dorado County (Remainder Area)	0	12,936	17,323	195	191	462	0	462	28.0
531.00	Unincorporated El Dorado County (Remainder Area)	0	2,531	3,395	36	34	82	0	82	30.8
532.00	Unincorporated El Dorado County (Remainder Area)	0	3,997	5,145	60	61	147	0	147	27.1
533.00	Unincorporated El Dorado County (Remainder Area)	0	9,333	8,557	657	105	271	34	305	30.6
534.00	Unincorporated El Dorado County (Remainder Area)	0	3,785	4,946	53	53	128	0	128	29.5
535.00	Unincorporated El Dorado County (Remainder Area)	0	5,925	7,776	76	91	221	0	221	26.8
536.00	Unincorporated El Dorado County (Remainder Area)	0	5,078	6,548	66	82	200	0	200	25.4
537.00	Unincorporated El Dorado County (Remainder Area)	0	10,379	14,095	109	165	402	0	402	25.8
538.00	Unincorporated El Dorado County (Remainder Area)	0	3,969	3,029	310	44	107	22	129	30.8
539.00	Unincorporated El Dorado County (Remainder Area)	0	13,152	1,367	2,115	6	15	166	181	72.9
540.00	Unincorporated El Dorado County (Remainder Area)	0	2,870	0	583	0	0	53	53	54.2
541.00	Unincorporated El Dorado County (Remainder Area)	0	1,046	1,108	62	18	42	6	48	21.7
542.00	Unincorporated El Dorado County (Remainder Area)	0	3,598	3,053	418	52	123	37	160	22.5
543.00	Unincorporated El Dorado County (Remainder Area)	0	10,583	2,409	1,792	49	114	107	221	47.8
544.00	Unincorporated El Dorado County (Remainder Area)	0	679	492	105	9	21	8	29	23.4
545.00	Unincorporated El Dorado County (Remainder Area)	0	1,521	2,039	17	23	54	0	54	28.3
546.00	Unincorporated El Dorado County (Remainder Area)	0	4,815	6,423	55	61	143	0	143	33.8

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547.00	Unincorporated El Dorado County (Remainder Area)	0	4,037	518	490	10	23	46	69	58.2
548.00	Unincorporated El Dorado County (Remainder Area)	0	17,379	23,051	473	386	910	22	932	18.6
549.00	Unincorporated El Dorado County (Remainder Area)	0	2,152	2,693	39	42	99	0	99	21.7
550.00	Unincorporated El Dorado County (Remainder Area)	0	264	344	4	7	18	0	18	14.7
551.00	Unincorporated El Dorado County (Remainder Area)	0	5,427	2,499	790	41	105	54	159	34.0
552.00	Unincorporated El Dorado County (Remainder Area)	0	2,444	419	505	8	19	32	51	48.2
553.00	Unincorporated El Dorado County (Remainder Area)	0	1,559	2,032	27	32	75	0	75	20.8
554.00	Unincorporated El Dorado County (Remainder Area)	0	4,016	5,178	106	83	194	4	198	20.3
555.00	Unincorporated El Dorado County (Remainder Area)	0	1,640	2,208	24	34	80	0	80	20.4
556.00	Unincorporated El Dorado County (Remainder Area)	0	5,070	6,921	67	82	192	0	192	26.5
557.00	Unincorporated El Dorado County (Remainder Area)	0	1,690	2,077	31	35	82	1	83	20.4
558.00	Unincorporated El Dorado County (Remainder Area)	0	2,717	2,979	166	36	84	19	103	26.3
559.00	Unincorporated El Dorado County (Remainder Area)	0	1,368	1,810	18	25	59	0	59	23.3
560.00	Unincorporated El Dorado County (Remainder Area)	0	1,598	1,653	101	27	63	10	73	21.9
561.00	Unincorporated El Dorado County (Remainder Area)	0	1,172	1,559	18	22	52	0	52	22.5
562.00	Unincorporated El Dorado County (Remainder Area)	0	4,012	5,885	40	62	145	0	145	27.6
563.00	Unincorporated El Dorado County (Remainder Area)	0	2,200	3,339	17	32	71	0	71	31.1
564.00	Unincorporated El Dorado County (Remainder Area)	0	615	823	10	14	33	0	33	18.4
565.00	Unincorporated El Dorado County (Remainder Area)	0	2,607	3,616	39	56	129	0	129	20.2
566.00	Unincorporated El Dorado County (Remainder Area)	0	3,965	5,310	71	93	220	1	221	17.9
567.00	Unincorporated El Dorado County (Remainder Area)	0	664	800	26	18	42	2	44	15.2
568.00	Unincorporated El Dorado County (Remainder Area)	0	921	1,235	15	26	62	0	62	15.0
569.00	Unincorporated El Dorado County (Remainder Area)	0	3,690	2,795	302	61	144	31	175	21.0
570.00	Unincorporated El Dorado County (Remainder Area)	0	4,787	2,122	785	40	92	92	184	26.0
571.00	Unincorporated El Dorado County (Remainder Area)	0	1,359	1,813	22	33	76	0	76	17.8
572.00	Unincorporated El Dorado County (Remainder Area)	0	1,861	1,354	266	25	61	34	95	19.5
573.00	Unincorporated El Dorado County (Remainder Area)	0	6,513	7,827	123	89	197	2	199	32.8
574.00	Unincorporated El Dorado County (Remainder Area)	0	5,027	7,949	31	71	174	0	174	28.9
575.00	Unincorporated El Dorado County (Remainder Area)	0	2,769	4,097	16	29	71	0	71	38.9
576.00	Unincorporated El Dorado County (Remainder Area)	0	1,086	1,527	17	19	42	1	43	25.3
577.00	Unincorporated El Dorado County (Remainder Area)	0	744	1,103	7	13	29	0	29	25.9
578.00	Unincorporated El Dorado County (Remainder Area)	0	23,405	37,122	107	370	817	0	817	28.6
579.00	Unincorporated El Dorado County (Remainder Area)	0	3,786	5,259	102	38	96	12	108	34.9
580.00	Unincorporated El Dorado County (Remainder Area)	0	2,878	4,111	63	35	89	5	94	30.7
581.00	Unincorporated El Dorado County (Remainder Area)	0	4,272	5,082	295	43	95	32	127	33.8
582.00	Unincorporated El Dorado County (Remainder Area)	0	1,261	1,704	17	13	34	0	34	37.3
583.00	Unincorporated El Dorado County (Remainder Area)	0	27,631	43,084	215	352	774	10	784	35.2
584.00	Unincorporated El Dorado County (Remainder Area)	0	1,743	2,092	56	18	40	3	43	40.8
585.00	Unincorporated El Dorado County (Remainder Area)	0	9,551	14,315	79	124	273	0	273	35.0
586.00	Unincorporated El Dorado County (Remainder Area)	0	5,845	2,487	1,577	51	91	92	183	32.0
587.00	Unincorporated El Dorado County (Remainder Area)	0	2,266	3,387	17	39	99	0	99	22.8
588.00	Unincorporated El Dorado County (Remainder Area)	0	19,652	29,931	127	323	805	0	805	24.4
589.00	Unincorporated El Dorado County (Remainder Area)	0	391	624	2	3	12	0	12	32.6
590.00	Unincorporated El Dorado County (Remainder Area)	0	822	1,125	12	18	46	0	46	18.0
591.00	Unincorporated El Dorado County (Remainder Area)	0	86	121	1	3	8	0	8	11.3
592.00	Unincorporated El Dorado County (Remainder Area)	0	12,614	12,997	750	339	749	91	840	15.0
593.00	Unincorporated El Dorado County (Remainder Area)	0	6,859	8,921	268	151	382	28	410	16.7
594.00	Unincorporated El Dorado County (Remainder Area)	0	16,807	24,479	184	312	790	5	795	21.1
595.00	Unincorporated El Dorado County (Remainder Area)	0	1,933	1,804	268	25	56	31	87	22.1
596.00	Unincorporated El Dorado County (Remainder Area)	0	2,821	2,747	224	34	85	25	110	25.7
597.00	Unincorporated El Dorado County (Remainder Area)	0	11,042	3,946	1,943	106	234	278	512	21.6
598.00	Unincorporated El Dorado County (Remainder Area)	0	1,723	533	263	14	31	35	66	26.1
599.00	Unincorporated El Dorado County (Remainder Area)	0	704	951	11	17	38	0	38	18.7
600.00	Unincorporated El Dorado County (Remainder Area)	0	11,194	10,873	1,285	205	453	130	583	19.2
601.00	Unincorporated El Dorado County (Remainder Area)	0	1,336	1,891	4	10	22	0	22	60.8
602.00	Unincorporated El Dorado County (Remainder Area)	0	434	135	54	3	5	2	7	59.2
603.00	Unincorporated El Dorado County (Remainder Area)	0	904	720	85	11	20	2	22	41.9
604.00	Unincorporated El Dorado County (Remainder Area)	0	1,417	1,766	110	17	33	3	36	39.2
605.00	Unincorporated El Dorado County (Remainder Area)	0	1,667	1,765	87	18	38	2	40	41.7
606.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
607.00	Unincorporated El Dorado County (Remainder Area)	0	3,531	4,836	12	19	49	0	49	71.5
608.00	Unincorporated El Dorado County (Remainder Area)	0	6	0	0	1	2	0	2	2.9
609.00	Unincorporated El Dorado County (Remainder Area)	0	3,014	3,151	118	34	72	4	76	39.8
610.00	El Dorado Hills	0	38,255	184	19,909	0	0	1,745	1,745	21.9
611.00	El Dorado Hills	0	314	0	10	153	0	1	1	313.7
612.00	El Dorado Hills	0	78,964	0	44,039	0	0	3,121	3,121	25.3
613.00	Unincorporated El Dorado County (Remainder Area)	0	69	67	1	2	5	0	5	13.5
614.00	El Dorado Hills	0	5,976	7,176	112	150	383	0	383	15.6
615.00	El Dorado Hills	0	12,050	9,091	1,009	150	402	75	477	25.3
616.00	El Dorado Hills	0	1,412	1,685	24	37	94	0	94	15.1
617.00	El Dorado Hills	0	20,564	12,766	1,220	187	547	118	665	30.9
618.00	El Dorado Hills	0	3,076	0	1,221	0	0	146	146	21.1
619.00	El Dorado Hills	0	3,388	0	1,233	0	0	151	151	22.4
620.00	El Dorado Hills	0	17,767	3,484	1,750	0	0	188	188	94.5
621.00	El Dorado Hills	0	14,252	18,851	220	327	957	0	957	14.9
622.00	El Dorado Hills	0	21,995	21,710	1,609	370	1,083	147	1,230	17.9
623.00	Unincorporated El Dorado County (Remainder Area)	0	389	0	174	0	0	16	16	24.3
624.00	El Dorado Hills	0	15,692	17,758	1,157	308	905	96	1,001	15.7

VMT Summary by Jurisdiction - 2018 Baseline Scenario (Plus Project)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
625.00	El Dorado Hills	0	851	0	408	0	0	40	40	21.3
626.00	Unincorporated El Dorado County (Remainder Area)	0	8,016	7,333	899	164	383	98	481	16.7
627.00	Unincorporated El Dorado County (Remainder Area)	0	51,915	0	10,607	0	0	897	897	57.9
628.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
629.00	Unincorporated El Dorado County (Remainder Area)	0	33,672	0	12,554	0	0	1,704	1,704	19.8
630.00	Unincorporated El Dorado County (Remainder Area)	0	138,668	190,636	1,420	3,236	9,537	0	9,537	14.5
631.00	Unincorporated El Dorado County (Remainder Area)	0	10,354	0	1,462	0	0	146	146	70.9
632.00	Unincorporated El Dorado County (Remainder Area)	0	1,449	1,759	24	37	94	0	94	15.5
633.00	Unincorporated El Dorado County (Remainder Area)	0	6,439	7,663	119	150	379	0	379	17.0
634.00	Unincorporated El Dorado County (Remainder Area)	0	6,584	7,905	119	150	379	0	379	17.4
635.00	Unincorporated El Dorado County (Remainder Area)	0	5,064	6,052	92	113	286	0	286	17.7
636.00	Unincorporated El Dorado County (Remainder Area)	0	4,513	6,246	79	120	322	0	322	14.0
637.00	Unincorporated El Dorado County (Remainder Area)	0	8,103	9,966	138	171	458	0	458	17.7
638.00	Unincorporated El Dorado County (Remainder Area)	0	1,043	1,281	16	23	62	0	62	16.9
639.00	Unincorporated El Dorado County (Remainder Area)	0	2,266	2,835	36	46	123	0	123	18.4
640.00	Unincorporated El Dorado County (Remainder Area)	0	7,900	9,823	125	176	472	0	472	16.7
641.00	Unincorporated El Dorado County (Remainder Area)	0	2,100	2,631	33	46	123	0	123	17.0
642.00	Unincorporated El Dorado County (Remainder Area)	0	28,435	33,694	1,257	637	1,708	93	1,801	15.8
643.00	Unincorporated El Dorado County (Remainder Area)	0	9,642	12,055	160	216	579	0	579	16.7
644.00	Unincorporated El Dorado County (Remainder Area)	0	2,932	3,700	47	76	194	0	194	15.1
645.00	Unincorporated El Dorado County (Remainder Area)	0	21,344	24,798	964	415	1,059	51	1,110	19.2
646.00	Unincorporated El Dorado County (Remainder Area)	0	8,866	11,046	156	192	490	0	490	18.1
647.00	Unincorporated El Dorado County (Remainder Area)	0	1,589	1,903	69	38	97	6	103	15.4
648.00	Unincorporated El Dorado County (Remainder Area)	0	1,818	2,177	46	38	97	2	99	18.4
649.00	Unincorporated El Dorado County (Remainder Area)	0	5,612	3,162	32	38	97	0	97	57.9
650.00	Outside of County	0	3,040,729	1,490,317	477,911	0	0	0	0	-
651.00	Outside of County	0	28,571	14,282	4,296	0	0	0	0	-
652.00	Outside of County	0	0	0	0	0	0	0	0	-
653.00	Outside of County	0	393,289	159,482	52,113	0	0	0	0	-
654.00	Outside of County	0	56,244	9,051	2,925	0	0	0	0	-
655.00	Outside of County	0	270,710	107,433	35,701	0	0	0	0	-
656.00	Outside of County	0	77,561	18,090	8,842	0	0	0	0	-
657.00	Outside of County	0	186,807	8,184	3,905	0	0	0	0	-
658.00	Outside of County	0	0	0	0	0	0	0	0	-
659.00	Outside of County	0	7,595	3,116	1,442	0	0	0	0	-
660.00	Outside of County	0	167,495	83,095	32,974	0	0	0	0	-
661.00	Outside of County	0	157,481	71,286	26,041	0	0	0	0	-
662.00	Outside of County	0	699,079	336,707	120,040	0	0	0	0	-
663.00	Outside of County	0	683,329	227,326	81,709	0	0	0	0	-
664.00	Outside of County	0	349,563	190,069	55,858	0	0	0	0	-
665.00	Outside of County	0	202,341	80,306	31,392	0	0	0	0	-
666.00	Outside of County	0	88,740	45,060	14,525	0	0	0	0	-
667.00	Outside of County	0	0	0	0	0	0	0	0	-
668.00	Outside of County	0	513,407	312,732	0	0	0	0	0	-
669.00	Outside of County	0	0	0	0	0	0	0	0	-
670.00	Outside of County	0	0	0	0	0	0	0	0	-
671.00	Outside of County	0	170,599	95,888	24,169	0	0	0	0	-
672.00	Outside of County	0	33,265	34,272	0	0	0	0	0	-
673.00	Outside of County	0	24,882	14,888	0	0	0	0	0	-
674.00	Outside of County	0	355,330	29,863	0	0	0	0	0	-

2040 Baseline Scenario (Plus Project)

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project)

	VMT Estimates			VMT Efficiency Metrics			Population Details				
Jurisdiction	Total OD VMT	Home-based PA VMT	Home-based Work PA VMT	Total VMT per Service Population	Home-based VMT per Capita	Home-based Work VMT per Employee	Total Households	Total Population	Total Employment	Total Service Population	Persons Per Household
City of Placerville	405,630	62,628	106,470	24.9	8.2	12.3	3,429	7,658	8,649	16,307	2.23
Unincorporated El Dorado County	5,168,531	3,256,081	684,596	20.7	17.0	11.8	76,328	191,450	58,263	249,714	2.51
629	28,906	0	11,775	16.96		6.91	0	0	1,704	1,704	
630	104,952	139,252	1,449	11.01	14.60		3,236	9,537	0	9,537	2.95
631	9,420	0	1,375	64.52		9.42	0	0	146	146	
				Threshold	14.5	10.2					

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
1.00	Unincorporated El Dorado County (Remainder Area)	0	5,610	1,755	828	47	99	36	135	41.6
2.00	Unincorporated El Dorado County (Remainder Area)	0	23,182	24,288	881	592	1,338	77	1,415	16.4
3.00	Unincorporated El Dorado County (Remainder Area)	0	5,305	6,560	99	74	180	0	180	29.5
4.00	Unincorporated El Dorado County (Remainder Area)	0	1,064	1,360	17	16	35	0	35	30.6
5.00	Unincorporated El Dorado County (Remainder Area)	0	2,579	3,576	26	33	73	0	73	35.3
6.00	Unincorporated El Dorado County (Remainder Area)	0	13,808	15,891	511	366	847	14	861	16.0
7.00	Unincorporated El Dorado County (Remainder Area)	0	24,199	26,592	1,361	565	1,223	92	1,315	18.4
8.00	Unincorporated El Dorado County (Remainder Area)	0	11,336	572	1,987	15	38	129	167	68.0
9.00	Unincorporated El Dorado County (Remainder Area)	0	25,189	30,496	633	559	1,400	13	1,413	17.8
10.00	Outside of County	0	109,257	88,471	11,309	2,178	5,588	1,056	6,644	16.4
11.00	Outside of County	0	112,724	81,499	13,750	2,148	5,511	1,297	6,808	16.6
12.00	Outside of County	0	59,287	45,354	4,876	1,179	3,234	437	3,671	16.1
13.00	Outside of County	0	34,683	40,255	1,544	906	2,458	99	2,557	13.6
14.00	Outside of County	0	58,816	68,011	1,710	1,511	4,120	78	4,198	14.0
15.00	Outside of County	0	3,066	3,939	59	58	166	0	166	18.5
16.00	Outside of County	0	56,432	21,896	7,571	659	1,614	689	2,303	24.5
17.00	Outside of County	0	161,428	139,942	14,161	2,811	7,160	1,363	8,523	18.9
18.00	Outside of County	0	84,317	95,644	3,654	1,930	4,652	246	4,898	17.2
19.00	Outside of County	0	10,422	5,824	1,099	96	217	103	320	32.5
20.00	Outside of County	0	7,652	141	4,108	2	7	283	290	26.4
21.00	Outside of County	0	26,320	73	13,726	2	4	1,082	1,086	24.2
22.00	Outside of County	0	1,692	10	339	1	1	21	22	76.9
23.00	Outside of County	0	29,287	12,817	3,715	115	322	261	583	50.2
24.00	Outside of County	0	4,217	3,117	141	133	133	0	133	31.7
25.00	Outside of County	0	0	0	0	0	0	0	0	-
26.00	Outside of County	0	109,211	102,087	8,030	2,238	5,070	642	5,712	19.1
27.00	Outside of County	0	8,224	75	3,068	2	5	338	343	24.0
28.00	Outside of County	0	240,607	200,408	17,384	4,828	12,553	1,923	14,476	16.6
29.00	Outside of County	0	8,641	10,983	164	170	486	0	486	17.8
30.00	Outside of County	0	70,794	72,664	5,861	1,194	3,041	368	3,409	20.8
31.00	Outside of County	0	10,361	5,358	606	41	106	44	150	68.9
32.00	Outside of County	0	29,767	38,367	692	692	1,811	21	1,832	16.3
33.00	Outside of County	0	38,330	47,489	1,377	857	2,183	69	2,252	17.0
34.00	Outside of County	0	6,125	5,944	708	69	156	32	188	32.6
35.00	Outside of County	0	30,687	36,961	781	812	2,092	0	2,092	14.7
36.00	Outside of County	0	37,243	44,804	913	910	2,318	0	2,318	16.1
37.00	Outside of County	0	58,537	2,558	22,094	57	142	1,643	1,785	32.8
38.00	Outside of County	0	6,752	3,922	640	57	142	45	187	36.2
39.00	Outside of County	0	17,073	14,609	2,135	514	1,180	181	1,361	12.5
40.00	Outside of County	0	76,401	22,263	16,360	851	1,972	1,905	3,877	19.7
41.00	Outside of County	0	35,549	24,470	7,588	592	1,368	567	1,935	18.4
42.00	Outside of County	0	175,954	96,853	24,919	2,081	5,108	1,911	7,019	25.1
43.00	Outside of County	0	34,450	39,962	980	849	2,170	46	2,216	15.5
44.00	Outside of County	0	110,565	80,448	8,918	1,827	4,654	791	5,445	20.3
45.00	Outside of County	0	73,140	23,275	12,204	846	1,936	1,262	3,198	22.9
46.00	Outside of County	0	5,955	6,478	152	164	375	0	375	15.9
47.00	Outside of County	0	202,204	9,395	81,221	284	681	5,991	6,672	30.3
48.00	Outside of County	0	48,225	42,613	3,777	1,211	3,071	266	3,337	14.5
49.00	Outside of County	0	110,506	584	50,330	18	45	4,248	4,293	25.7
50.00	Outside of County	0	73,214	35,999	22,032	981	2,487	1,736	4,223	17.3
51.00	Outside of County	0	98,386	51,619	15,819	1,710	4,116	1,373	5,489	17.9
52.00	Outside of County	0	30,815	15,211	3,197	279	629	279	908	33.9
53.00	Outside of County	0	79,160	47,954	10,965	1,399	3,606	983	4,589	17.2
54.00	Outside of County	0	59,964	22,331	22,517	494	1,220	1,748	2,968	20.2
55.00	Outside of County	0	77,026	30,125	13,993	639	1,471	1,127	2,598	29.6
56.00	Outside of County	0	35,809	40,014	1,297	872	2,337	56	2,393	15.0
57.00	Outside of County	0	105,994	24,029	46,301	660	1,466	4,152	5,618	18.9
58.00	Outside of County	0	36,111	26,006	4,455	613	1,587	352	1,939	18.6
59.00	Outside of County	0	45,238	89	27,143	2	5	2,191	2,196	20.6
60.00	Outside of County	0	68,173	8,198	31,191	240	512	2,711	3,223	21.1
61.00	Outside of County	0	140,515	86,586	22,757	2,381	5,595	1,810	7,405	19.0
62.00	Outside of County	0	51,729	1,907	24,047	33	110	2,000	2,110	24.5
63.00	Outside of County	0	66,282	5,276	27,443	143	350	2,462	2,812	23.6
64.00	Outside of County	0	129,736	73,321	20,949	2,031	5,053	1,733	6,786	19.1
65.00	Outside of County	0	5,622	6,337	128	127	328	0	328	17.2
66.00	Outside of County	0	37,729	28,053	4,226	887	2,117	331	2,448	15.4
67.00	Outside of County	0	117,564	21,801	38,956	633	1,374	3,381	4,755	24.7
68.00	Outside of County	0	38,735	12,378	10,928	453	946	1,002	1,948	19.9
69.00	Outside of County	0	241,144	68,459	97,698	1,950	5,172	7,364	12,536	19.2
70.00	Outside of County	0	161,607	1,077	97,613	15	38	7,503	7,541	21.4
71.00	Outside of County	0	216,971	129,891	32,342	2,596	6,730	2,417	9,147	23.7
72.00	Outside of County	0	271,029	770	155,992	0	0	10,084	10,084	26.9
73.00	Outside of County	0	96,806	0	61,119	0	0	4,612	4,612	21.0
74.00	Outside of County	0	135,176	17,125	66,910	546	1,335	5,255	6,590	20.5

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
75.00	Outside of County	0	83,907	61,269	17,141	1,946	4,535	1,072	5,607	15.0
76.00	Outside of County	0	27,792	16,839	3,858	497	1,333	313	1,646	16.9
77.00	Outside of County	0	79,794	41,179	19,488	1,068	2,684	1,384	4,068	19.6
78.00	Outside of County	0	71,127	0	20,476	1	2	1,777	1,779	40.0
79.00	Outside of County	0	76,029	57,789	9,304	1,345	3,258	620	3,878	19.6
80.00	Outside of County	0	33,790	0	16,545	0	0	1,306	1,306	25.9
81.00	Outside of County	0	179,639	0	101,065	0	0	7,809	7,809	23.0
82.00	Outside of County	0	52,581	0	26,269	0	0	2,171	2,171	24.2
83.00	Outside of County	0	51,513	34,463	6,809	590	1,536	460	1,996	25.8
84.00	Outside of County	0	51,824	41,800	4,122	1,305	3,049	306	3,355	15.4
85.00	Outside of County	0	54,865	45,516	4,686	1,261	3,154	354	3,508	15.6
86.00	Outside of County	0	85,186	60,752	8,312	1,996	4,538	681	5,219	16.3
87.00	Outside of County	0	63,695	50,468	7,577	1,845	3,996	613	4,609	13.8
88.00	Outside of County	0	71,262	42,588	8,289	1,184	2,955	696	3,651	19.5
89.00	Outside of County	0	18,730	0	6,067	0	0	455	455	41.2
90.00	Outside of County	0	57,294	2,008	28,359	92	157	2,453	2,610	21.9
91.00	Outside of County	0	99,636	13,484	36,724	389	997	3,846	4,843	20.6
92.00	Outside of County	0	50,981	47,673	2,484	1,234	2,964	133	3,097	16.5
93.00	Outside of County	0	93,478	65,190	18,737	1,374	3,459	1,484	4,943	18.9
94.00	Outside of County	0	1,126	101	460	2	4	41	45	25.0
95.00	Outside of County	0	120,186	0	63,810	0	0	4,542	4,542	26.5
96.00	Outside of County	0	161,469	53,588	54,517	1,026	2,520	3,884	6,404	25.2
97.00	Outside of County	0	57,149	50,770	4,505	1,030	2,624	349	2,973	19.2
98.00	Outside of County	0	84,284	13,232	27,461	375	984	2,705	3,689	22.8
99.00	Outside of County	0	71,300	27,660	23,232	806	1,976	2,391	4,367	16.3
100.00	Outside of County	0	21,403	26,733	444	470	1,178	0	1,178	18.2
101.00	Outside of County	0	54,631	41,276	8,874	869	2,253	822	3,075	17.8
102.00	Outside of County	0	22,209	5,147	6,214	92	237	467	704	31.6
103.00	Outside of County	0	95,847	105,652	4,022	2,474	5,823	281	6,104	15.7
104.00	Outside of County	0	60,349	9,120	13,066	184	451	868	1,319	45.8
105.00	Outside of County	0	40,570	51,731	886	1,011	2,513	10	2,523	16.1
106.00	Outside of County	0	6,843	0	3,192	0	0	283	283	24.2
107.00	Outside of County	0	298,215	40,538	95,170	1,362	3,008	7,445	10,453	28.5
108.00	Outside of County	0	27,179	17,051	5,733	370	988	479	1,467	18.5
109.00	Outside of County	0	16,673	0	7,396	0	0	563	563	29.6
110.00	Outside of County	0	62,410	8,674	28,639	209	495	2,207	2,702	23.1
111.00	Outside of County	0	82,367	7,474	15,411	223	512	1,049	1,561	52.8
112.00	Outside of County	0	133,841	30,436	26,983	763	2,056	2,119	4,175	32.1
113.00	Outside of County	0	53,801	118	23,845	0	0	2,386	2,386	22.5
114.00	Outside of County	0	36,216	29,605	6,436	809	2,141	572	2,713	13.4
115.00	Outside of County	0	153,715	86,648	20,877	1,900	4,875	1,584	6,459	23.8
116.00	Outside of County	0	2,995	0	1,487	0	0	116	116	25.8
117.00	Outside of County	0	52,091	17,457	15,402	327	920	1,448	2,368	22.0
118.00	Outside of County	0	77,022	81,272	3,262	2,338	6,182	191	6,373	12.1
119.00	Outside of County	0	134,013	7,173	62,417	216	540	6,222	6,762	19.8
120.00	Outside of County	0	177,343	0	43,368	0	0	4,669	4,669	38.0
121.00	Outside of County	0	138,147	48,733	19,553	1,513	3,882	1,917	5,799	23.8
122.00	Outside of County	0	56,745	15,080	10,510	533	1,248	1,125	2,373	23.9
123.00	Outside of County	0	28,712	7,044	5,104	200	547	536	1,083	26.5
124.00	Outside of County	0	52,747	47,844	2,804	1,044	2,229	168	2,397	22.0
125.00	Outside of County	0	27,897	9,949	5,599	414	817	583	1,400	19.9
126.00	Outside of County	0	16,117	4,802	2,917	156	342	274	616	26.2
127.00	Outside of County	0	38,569	33,515	2,401	870	1,855	169	2,024	19.1
128.00	Outside of County	0	65,721	46,878	6,810	1,262	2,600	538	3,138	20.9
129.00	Outside of County	0	41,262	43,434	1,839	1,045	2,302	117	2,419	17.1
130.00	Outside of County	0	21,003	9,162	2,688	342	786	298	1,084	19.4
131.00	Outside of County	0	47,350	14,663	11,375	494	1,013	1,272	2,285	20.7
132.00	Outside of County	0	27,948	23,156	2,780	556	1,258	235	1,493	18.7
133.00	Outside of County	0	119,213	58,463	14,589	2,077	5,182	1,628	6,810	17.5
134.00	Outside of County	0	61,694	30,116	18,228	1,074	2,483	1,578	4,061	15.2
135.00	Outside of County	0	50,357	0	27,748	0	0	2,740	2,740	18.4
136.00	Outside of County	0	25,917	27,711	1,375	661	1,688	93	1,781	14.6
137.00	Outside of County	0	112,911	102,992	7,041	2,426	6,986	595	7,581	14.9
138.00	El Dorado Diamond Springs	0	21,913	6,086	4,341	264	577	297	874	25.1
139.00	El Dorado Diamond Springs	0	10,562	1,341	1,714	67	144	156	300	35.2
140.00	El Dorado Diamond Springs	0	57,042	128	10,310	10	22	811	833	68.5
141.00	Unincorporated El Dorado County (Remainder Area)	0	1,489	1,678	28	21	49	0	49	30.3
142.00	Unincorporated El Dorado County (Remainder Area)	0	6,599	6,518	172	156	347	0	347	19.0
143.00	Unincorporated El Dorado County (Remainder Area)	0	4,214	3,320	257	108	240	12	252	16.7
144.00	Unincorporated El Dorado County (Remainder Area)	0	4,026	3,565	342	80	200	21	221	18.2
145.00	Unincorporated El Dorado County (Remainder Area)	0	743	648	25	30	70	0	70	10.7
146.00	El Dorado Diamond Springs	0	6,258	2,339	1,112	114	261	98	359	17.4
147.00	El Dorado Diamond Springs	0	3,734	3,551	132	165	378	0	378	9.9
148.00	Outside of County	0	155,376	185,581	5,427	2,264	5,302	120	5,422	28.7

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
149.00	Shingle Springs	0	16,371	1,784	3,481	53	149	287	436	37.6
150.00	Unincorporated El Dorado County (Remainder Area)	0	6,014	6,908	131	107	254	0	254	23.7
151.00	Unincorporated El Dorado County (Remainder Area)	0	1,338	1,775	19	23	67	0	67	20.0
152.00	Shingle Springs	0	33,628	6,254	5,156	201	488	370	858	39.2
153.00	Unincorporated El Dorado County (Remainder Area)	0	8,566	8,194	248	290	623	0	623	13.7
154.00	Unincorporated El Dorado County (Remainder Area)	0	6,924	7,315	183	254	597	0	597	11.6
155.00	Shingle Springs	0	5,233	5,726	132	154	406	0	406	12.9
156.00	Unincorporated El Dorado County (Remainder Area)	0	2,052	2,335	58	27	68	1	69	29.7
157.00	El Dorado Hills	0	8,748	11,088	165	273	790	0	790	11.1
158.00	Cameron Park	0	17,637	19,249	493	624	1,431	11	1,442	12.2
159.00	Cameron Park	0	15,490	14,982	1,418	446	1,082	114	1,196	12.9
160.00	Shingle Springs	0	18,421	16,961	1,145	504	1,223	70	1,293	14.2
161.00	El Dorado Hills	0	11,141	14,175	193	290	754	0	754	14.8
162.00	El Dorado Hills	0	57,968	78,724	867	1,503	4,465	0	4,465	13.0
163.00	El Dorado Hills	0	36,474	7,662	4,826	165	490	438	928	39.3
164.00	El Dorado Hills	0	60,950	0	32,053	0	0	3,124	3,124	19.5
165.00	El Dorado Hills	0	17,564	20,917	421	551	1,369	0	1,369	12.8
166.00	Outside of County	0	29,003	30,873	1,005	766	1,965	50	2,015	14.4
167.00	El Dorado Hills	0	47,585	46,804	2,339	1,520	3,531	111	3,641	13.1
168.00	El Dorado Hills	0	27,172	30,096	1,070	1,133	2,632	35	2,667	10.2
169.00	El Dorado Hills	0	118,128	5,709	25,380	208	517	2,484	3,001	39.4
170.00	El Dorado Hills	0	46,669	736	23,403	26	65	2,562	2,627	17.8
171.00	El Dorado Hills	0	16,477	16,540	1,055	441	1,081	68	1,148	14.3
172.00	El Dorado Hills	0	9,391	0	1,675	0	0	158	158	59.4
173.00	El Dorado Hills	0	46,214	0	10,997	0	0	1,140	1,140	40.5
174.00	Unincorporated El Dorado County (Remainder Area)	0	3,872	1,499	1,084	15	38	54	92	42.2
175.00	Unincorporated El Dorado County (Remainder Area)	0	2,609	635	486	10	24	22	46	57.1
176.00	Unincorporated El Dorado County (Remainder Area)	0	3,214	3,676	69	58	137	0	137	23.4
177.00	Unincorporated El Dorado County (Remainder Area)	0	11,074	8,672	1,806	147	370	130	500	22.1
178.00	Unincorporated El Dorado County (Remainder Area)	0	4,887	5,680	138	87	223	3	226	21.6
179.00	Unincorporated El Dorado County (Remainder Area)	0	707	911	11	21	55	0	55	12.9
180.00	El Dorado Hills	0	17,326	21,816	309	450	1,155	0	1,155	15.0
181.00	El Dorado Hills	0	6,705	5,370	634	120	315	61	376	17.8
182.00	Cameron Park	0	39,432	48,986	725	1,244	3,262	0	3,262	12.1
183.00	Unincorporated El Dorado County (Remainder Area)	0	10,766	12,336	242	354	832	0	832	12.9
184.00	Cameron Park	0	36,902	16,216	4,118	417	1,093	425	1,518	24.3
185.00	Cameron Park	0	3,880	4,502	80	152	349	0	349	11.1
186.00	Cameron Park	0	47,534	4,779	8,149	170	390	896	1,286	37.0
187.00	Cameron Park	0	10,554	7,385	1,144	247	566	104	670	15.7
188.00	Cameron Park	0	6,555	5,800	568	213	489	49	538	12.2
189.00	Unincorporated El Dorado County (Remainder Area)	0	2,490	3,187	40	36	100	0	100	24.8
190.00	Unincorporated El Dorado County (Remainder Area)	0	10,477	13,388	183	255	712	0	712	14.7
191.00	El Dorado Hills	0	1,444	1,836	24	39	109	0	109	13.3
192.00	El Dorado Hills	0	871	1,096	14	25	69	0	69	12.6
193.00	El Dorado Hills	0	14,299	5,330	3,640	156	406	361	768	18.6
194.00	El Dorado Hills	0	15,163	19,720	267	439	1,297	0	1,297	11.7
195.00	El Dorado Hills	0	9,048	472	2,022	10	26	176	203	44.6
196.00	Outside of County	0	52,697	60,113	1,730	1,148	3,198	97	3,295	16.0
197.00	El Dorado Hills	0	3,208	3,949	56	85	225	0	225	14.3
198.00	El Dorado Hills	0	69,156	39,308	6,109	887	2,476	623	3,099	22.3
199.00	El Dorado Hills	0	11,359	2,894	1,629	62	173	143	316	35.9
200.00	El Dorado Hills	0	6,409	307	1,232	7	19	121	140	45.9
201.00	El Dorado Hills	0	20,680	6,831	2,775	150	443	269	712	29.0
202.00	El Dorado Hills	0	37,640	35,644	2,132	762	2,127	169	2,296	16.4
203.00	El Dorado Hills	0	52,139	66,541	1,140	1,300	3,762	43	3,805	13.7
204.00	El Dorado Hills	0	17,212	16,320	632	362	1,048	48	1,096	15.7
205.00	El Dorado Hills	0	503	0	242	0	0	30	30	16.8
206.00	El Dorado Hills	0	1,642	2,104	28	51	148	0	148	11.1
207.00	El Dorado Hills	0	13,021	16,693	221	304	880	0	880	14.8
208.00	Unincorporated El Dorado County (Remainder Area)	0	327	428	5	9	26	0	26	12.5
209.00	El Dorado Hills	0	11,577	4,477	1,417	88	254	118	372	31.1
210.00	El Dorado Hills	0	6,368	8,187	109	162	479	0	479	13.3
211.00	Unincorporated El Dorado County (Remainder Area)	0	136	179	2	4	11	0	11	12.0
212.00	El Dorado Hills	0	2,417	3,139	39	53	153	0	153	15.8
213.00	Unincorporated El Dorado County (Remainder Area)	0	9,270	11,940	154	193	534	0	534	17.4
214.00	Unincorporated El Dorado County (Remainder Area)	0	2,329	3,349	31	31	76	0	76	30.8
215.00	El Dorado Hills	0	6,832	8,671	122	148	413	0	413	16.5
216.00	Unincorporated El Dorado County (Remainder Area)	0	1,749	2,456	26	23	56	0	56	31.2
217.00	Unincorporated El Dorado County (Remainder Area)	0	592	767	9	11	31	0	31	19.3
218.00	Unincorporated El Dorado County (Remainder Area)	0	1,525	1,910	26	28	78	0	78	19.5
219.00	Unincorporated El Dorado County (Remainder Area)	0	3,939	5,007	68	69	191	0	191	20.6
220.00	Unincorporated El Dorado County (Remainder Area)	0	476	640	6	9	25	0	25	19.1
221.00	El Dorado Hills	0	37,355	48,863	562	999	2,596	0	2,596	14.4
222.00	Cameron Park	0	2,156	1,470	418	34	90	58	148	14.6

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project)

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223.00	Cameron Park	0	5,550	7,179	78	174	461	0	461	12.0
224.00	Unincorporated El Dorado County (Remainder Area)	0	8,627	7,460	498	144	382	37	419	20.6
225.00	Unincorporated El Dorado County (Remainder Area)	0	23,151	10,955	2,952	147	424	277	702	33.0
226.00	Cameron Park	0	27,523	27,185	1,229	550	1,591	118	1,709	16.1
227.00	Cameron Park	0	8,741	11,170	205	281	689	10	699	12.5
228.00	Cameron Park	0	20,688	25,457	503	724	1,775	25	1,800	11.5
229.00	El Dorado Hills	0	40,585	34,270	2,241	793	2,061	237	2,298	17.7
230.00	El Dorado Hills	0	22,204	27,429	312	557	1,655	0	1,655	13.4
231.00	Unincorporated El Dorado County (Remainder Area)	0	4,954	6,660	69	134	388	0	388	12.8
232.00	Unincorporated El Dorado County (Remainder Area)	0	4,609	5,975	73	87	241	0	241	19.2
233.00	Cameron Park	0	8,432	3,724	739	116	266	100	366	23.0
234.00	Cameron Park	0	55,432	34,188	5,007	1,085	2,488	670	3,158	17.6
235.00	Cameron Park	0	42,849	55,627	626	1,322	3,580	2	3,582	12.0
236.00	Cameron Park	0	14,824	19,532	257	473	1,281	9	1,290	11.5
237.00	Cameron Park	0	2,256	2,686	43	78	179	0	179	12.6
238.00	Cameron Park	0	39,317	15,448	5,220	415	1,018	527	1,545	25.5
239.00	Cameron Park	0	2,363	3,392	34	86	228	0	228	10.4
240.00	Unincorporated El Dorado County (Remainder Area)	0	6,679	8,485	109	137	363	0	363	18.4
241.00	Cameron Park	0	14,920	7,646	1,265	181	480	151	631	23.6
242.00	Cameron Park	0	706	917	9	24	64	0	64	11.1
243.00	Cameron Park	0	2,037	2,621	32	61	162	1	163	12.5
244.00	Unincorporated El Dorado County (Remainder Area)	0	3,029	3,761	57	51	128	0	128	23.7
245.00	Unincorporated El Dorado County (Remainder Area)	0	785	1,016	11	10	30	0	30	26.2
246.00	Unincorporated El Dorado County (Remainder Area)	0	4,028	5,345	56	63	189	0	189	21.3
247.00	Unincorporated El Dorado County (Remainder Area)	0	13,683	14,378	355	296	636	0	636	21.5
248.00	Unincorporated El Dorado County (Remainder Area)	0	13,356	10,533	941	182	431	39	470	28.4
249.00	Unincorporated El Dorado County (Remainder Area)	0	3,337	1,858	530	26	56	25	81	41.2
250.00	Unincorporated El Dorado County (Remainder Area)	0	2,900	3,331	60	53	124	0	124	23.4
251.00	Unincorporated El Dorado County (Remainder Area)	0	5,671	6,326	135	139	363	0	363	15.6
252.00	Unincorporated El Dorado County (Remainder Area)	0	25,077	29,287	573	666	1,756	0	1,756	14.3
253.00	Unincorporated El Dorado County (Remainder Area)	0	7,608	9,052	158	149	410	0	410	18.6
254.00	Unincorporated El Dorado County (Remainder Area)	0	5,323	6,013	121	119	311	0	311	17.1
255.00	Cameron Park	0	62,532	0	14,331	0	0	1,405	1,405	44.5
256.00	Cameron Park	0	43,107	2,080	10,136	72	175	872	1,047	41.2
257.00	Shingle Springs	0	61,374	15,784	14,296	511	1,335	1,312	2,647	23.2
258.00	Unincorporated El Dorado County (Remainder Area)	0	2,155	2,578	40	36	99	0	99	21.8
259.00	Unincorporated El Dorado County (Remainder Area)	0	2,644	3,166	52	50	132	0	132	20.1
260.00	Shingle Springs	0	26,540	143	5,582	5	15	441	456	58.2
261.00	Shingle Springs	0	26,687	3,654	4,786	121	333	388	721	37.0
262.00	Shingle Springs	0	39,945	5,602	6,436	203	530	514	1,044	38.3
263.00	Shingle Springs	0	9,961	3,882	1,467	121	333	119	452	22.1
264.00	Shingle Springs	0	7,808	3,144	1,041	97	267	82	349	22.4
265.00	Unincorporated El Dorado County (Remainder Area)	0	1,977	2,247	43	44	116	0	116	17.1
266.00	Unincorporated El Dorado County (Remainder Area)	0	6,139	1,665	670	41	88	33	121	50.7
267.00	Unincorporated El Dorado County (Remainder Area)	0	8,737	10,111	219	240	633	0	633	13.8
268.00	Unincorporated El Dorado County (Remainder Area)	0	3,034	3,121	171	72	190	10	200	15.2
269.00	Unincorporated El Dorado County (Remainder Area)	0	13,588	9,345	1,446	217	558	81	639	21.3
270.00	Unincorporated El Dorado County (Remainder Area)	0	6,232	2,665	684	54	135	39	174	35.8
271.00	Unincorporated El Dorado County (Remainder Area)	0	9,930	10,061	736	172	442	50	492	20.2
272.00	Unincorporated El Dorado County (Remainder Area)	0	9,776	6,590	800	145	407	55	462	21.2
273.00	Unincorporated El Dorado County (Remainder Area)	0	7,554	9,041	377	138	400	22	422	17.9
274.00	Unincorporated El Dorado County (Remainder Area)	0	21,610	19,173	1,553	411	1,153	122	1,275	17.0
275.00	Unincorporated El Dorado County (Remainder Area)	0	14,861	17,340	335	379	971	0	971	15.3
276.00	Cameron Park	0	28,002	19,185	2,034	535	1,312	179	1,491	18.8
277.00	Cameron Park	0	4,983	5,907	98	176	427	0	427	11.7
278.00	Unincorporated El Dorado County (Remainder Area)	0	5,802	6,090	216	100	265	10	275	21.1
279.00	Unincorporated El Dorado County (Remainder Area)	0	2,979	3,820	50	55	146	0	146	20.4
280.00	Unincorporated El Dorado County (Remainder Area)	0	1,447	1,705	31	37	103	0	103	14.1
281.00	Unincorporated El Dorado County (Remainder Area)	0	4,892	4,257	423	85	238	28	266	18.4
282.00	Unincorporated El Dorado County (Remainder Area)	0	1,396	1,642	30	39	109	0	109	12.8
283.00	Shingle Springs	0	15,169	3,016	2,190	0	0	197	197	77.0
284.00	Shingle Springs	0	4,232	1,028	647	36	87	53	140	30.1
285.00	Unincorporated El Dorado County (Remainder Area)	0	13,928	2,763	2,932	53	154	233	387	36.0
286.00	Unincorporated El Dorado County (Remainder Area)	0	1,681	2,103	30	36	101	0	101	16.6
287.00	Unincorporated El Dorado County (Remainder Area)	0	1,404	1,703	27	34	87	0	87	16.1
288.00	Unincorporated El Dorado County (Remainder Area)	0	2,194	2,724	40	50	140	0	140	15.6
289.00	Unincorporated El Dorado County (Remainder Area)	0	323	425	5	8	23	0	23	13.9
290.00	Unincorporated El Dorado County (Remainder Area)	0	2,065	2,646	35	44	128	0	128	16.2
291.00	Unincorporated El Dorado County (Remainder Area)	0	12,471	15,788	239	254	647	0	647	19.3
292.00	Unincorporated El Dorado County (Remainder Area)	0	4,347	5,811	64	72	209	0	209	20.8
293.00	Unincorporated El Dorado County (Remainder Area)	0	1,295	1,294	36	41	90	0	90	14.5
294.00	Unincorporated El Dorado County (Remainder Area)	0	4,478	4,697	122	129	321	0	321	14.0
295.00	Unincorporated El Dorado County (Remainder Area)	0	61,832	4,987	22,370	110	282	1,540	1,822	33.9
296.00	El Dorado Diamond Springs	0	51,622	6,688	9,674	188	496	729	1,225	42.2

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297.00	Unincorporated El Dorado County (Remainder Area)	0	2,271	2,691	61	79	208	0	208	10.9
298.00	Unincorporated El Dorado County (Remainder Area)	0	2,837	3,100	71	79	208	0	208	13.6
299.00	Unincorporated El Dorado County (Remainder Area)	0	5,010	5,738	112	114	293	0	293	17.1
300.00	Unincorporated El Dorado County (Remainder Area)	0	1,730	1,918	41	45	116	0	116	14.9
301.00	Unincorporated El Dorado County (Remainder Area)	0	625	550	41	20	44	3	47	13.4
302.00	Unincorporated El Dorado County (Remainder Area)	0	3,890	2,617	209	89	194	10	204	19.0
303.00	El Dorado Diamond Springs	0	4,187	2,702	443	106	228	28	255	16.4
304.00	El Dorado Diamond Springs	0	8,275	285	2,658	12	26	269	296	28.0
305.00	El Dorado Diamond Springs	0	10,712	0	4,984	1	2	536	539	19.9
306.00	El Dorado Diamond Springs	0	7,899	3,166	1,353	128	275	110	386	20.5
307.00	El Dorado Diamond Springs	0	2,955	2,816	92	112	257	0	257	11.5
308.00	El Dorado Diamond Springs	0	240	245	6	12	28	0	28	8.7
309.00	El Dorado Diamond Springs	0	810	719	26	34	74	0	74	10.9
310.00	El Dorado Diamond Springs	0	13,796	638	2,514	29	66	220	286	48.2
311.00	El Dorado Diamond Springs	0	3,548	1,727	439	75	164	33	197	18.0
312.00	El Dorado Diamond Springs	0	9,925	6,799	979	310	711	71	782	12.7
313.00	El Dorado Diamond Springs	0	23,658	3,457	7,049	71	178	534	712	33.2
314.00	El Dorado Diamond Springs	0	10,534	2,500	1,459	100	249	103	352	29.9
315.00	Outside of County	0	0	0	0	0	0	0	0	-
316.00	El Dorado Diamond Springs	0	675	641	22	31	68	0	68	10.0
317.00	El Dorado Diamond Springs	0	140	126	4	8	17	0	17	8.0
318.00	Unincorporated El Dorado County (Remainder Area)	0	8,118	4,732	736	182	452	41	493	16.5
319.00	El Dorado Diamond Springs	0	1,397	1,285	45	57	143	0	143	9.8
320.00	Unincorporated El Dorado County (Remainder Area)	0	4,928	1,604	816	19	48	61	109	45.1
321.00	Unincorporated El Dorado County (Remainder Area)	0	5,218	6,148	139	116	295	2	297	17.6
322.00	Unincorporated El Dorado County (Remainder Area)	0	10,699	10,582	575	242	623	26	649	16.5
323.00	Unincorporated El Dorado County (Remainder Area)	0	8,289	3,756	1,849	67	172	139	311	26.6
324.00	Unincorporated El Dorado County (Remainder Area)	0	7,051	3,627	702	73	183	39	222	31.8
325.00	Unincorporated El Dorado County (Remainder Area)	0	718	834	16	20	51	0	51	14.1
326.00	Unincorporated El Dorado County (Remainder Area)	0	2,086	2,464	49	57	145	0	145	14.4
327.00	Placerville	0	3,214	3,497	83	84	210	0	210	15.3
328.00	Unincorporated El Dorado County (Remainder Area)	0	697	792	16	19	48	0	48	14.7
329.00	Placerville	0	4,827	4,839	141	156	360	0	360	13.4
330.00	Unincorporated El Dorado County (Remainder Area)	0	3,487	3,693	95	109	273	0	273	12.8
331.00	Unincorporated El Dorado County (Remainder Area)	0	6,128	6,971	142	130	325	0	325	18.9
332.00	Unincorporated El Dorado County (Remainder Area)	0	1,433	1,518	39	47	105	0	105	13.6
333.00	Unincorporated El Dorado County (Remainder Area)	0	3,929	4,487	88	91	225	0	225	17.5
334.00	Unincorporated El Dorado County (Remainder Area)	0	1,645	996	259	26	58	18	76	21.6
335.00	Unincorporated El Dorado County (Remainder Area)	0	2,805	3,007	74	76	163	0	163	17.2
336.00	Unincorporated El Dorado County (Remainder Area)	0	1,046	1,114	26	30	66	0	66	15.8
337.00	Unincorporated El Dorado County (Remainder Area)	0	10,241	6,040	1,777	124	304	128	432	23.7
338.00	Unincorporated El Dorado County (Remainder Area)	0	13,795	15,630	402	350	900	11	911	15.1
339.00	Unincorporated El Dorado County (Remainder Area)	0	9,228	11,904	147	224	508	0	508	18.2
340.00	Unincorporated El Dorado County (Remainder Area)	0	8,012	5,215	514	95	202	30	232	34.5
341.00	Unincorporated El Dorado County (Remainder Area)	0	1,628	1,541	174	34	75	16	91	18.0
342.00	Unincorporated El Dorado County (Remainder Area)	0	2,375	2,730	50	48	123	0	123	19.2
343.00	Unincorporated El Dorado County (Remainder Area)	0	4,970	5,766	92	78	177	0	177	28.1
344.00	Unincorporated El Dorado County (Remainder Area)	0	5,870	6,944	107	92	208	0	208	28.2
345.00	Unincorporated El Dorado County (Remainder Area)	0	2,016	2,126	40	34	77	0	77	26.2
346.00	Unincorporated El Dorado County (Remainder Area)	0	1,268	1,247	28	23	51	0	51	24.8
347.00	Unincorporated El Dorado County (Remainder Area)	0	2,643	3,126	50	42	108	0	108	24.5
348.00	Unincorporated El Dorado County (Remainder Area)	0	2,515	2,477	59	48	107	0	107	23.6
349.00	Unincorporated El Dorado County (Remainder Area)	0	8,164	4,868	582	94	193	34	227	35.9
350.00	Unincorporated El Dorado County (Remainder Area)	0	986	1,136	18	20	45	0	45	21.8
351.00	Unincorporated El Dorado County (Remainder Area)	0	1,462	1,839	23	31	70	0	70	20.8
352.00	Unincorporated El Dorado County (Remainder Area)	0	2,097	2,682	31	38	86	0	86	24.3
353.00	Unincorporated El Dorado County (Remainder Area)	0	10,637	10,195	518	200	453	43	496	21.4
354.00	Unincorporated El Dorado County (Remainder Area)	0	7,099	4,730	460	68	154	43	197	36.0
355.00	Placerville	1	27,302	5,119	4,996	257	594	387	981	27.8
356.00	Placerville	1	2,714	2,542	92	109	235	0	235	11.6
357.00	Unincorporated El Dorado County (Remainder Area)	0	8,080	4,221	736	133	294	42	336	24.0
358.00	Placerville	0	10,347	3,346	1,647	128	283	123	406	25.5
359.00	Unincorporated El Dorado County (Remainder Area)	0	3,538	3,679	95	105	247	0	247	14.3
360.00	Unincorporated El Dorado County (Remainder Area)	0	4,183	4,546	99	97	228	0	228	18.3
361.00	Placerville	1	27,095	10,011	4,646	570	1,189	370	1,558	17.4
362.00	Placerville	1	47,002	3,835	8,045	194	457	616	1,073	43.8
363.00	Unincorporated El Dorado County (Remainder Area)	0	416	425	12	19	48	0	48	8.6
364.00	Placerville	0	4,542	3,700	418	173	439	28	466	9.7
365.00	El Dorado Diamond Springs	0	24,337	9,311	3,012	541	1,147	223	1,370	17.8
366.00	El Dorado Diamond Springs	0	10,642	1,556	1,651	108	232	146	378	28.1
367.00	El Dorado Diamond Springs	0	7,174	0	3,571	0	0	398	398	18.0
368.00	El Dorado Diamond Springs	0	4,919	1,333	828	68	157	81	238	20.7
369.00	El Dorado Diamond Springs	0	14,237	8,834	1,426	485	1,088	114	1,202	11.8
370.00	El Dorado Diamond Springs	0	6,948	82	2,927	0	0	317	317	21.9

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
371.00	El Dorado Diamond Springs	0	2,152	2,073	61	69	155	0	155	13.9
372.00	El Dorado Diamond Springs	0	28,865	14,141	3,166	559	1,254	296	1,550	18.6
373.00	El Dorado Diamond Springs	0	559	494	18	27	62	0	62	9.0
374.00	El Dorado Diamond Springs	0	1,048	275	117	14	32	10	42	24.8
375.00	El Dorado Diamond Springs	0	362	329	11	15	34	0	34	10.5
376.00	El Dorado Diamond Springs	0	1,494	724	220	34	78	17	95	15.7
377.00	El Dorado Diamond Springs	0	728	319	172	14	32	16	48	15.1
378.00	El Dorado Diamond Springs	0	548	516	16	27	62	0	62	8.8
379.00	El Dorado Diamond Springs	0	943	872	29	48	111	0	111	8.5
380.00	El Dorado Diamond Springs	0	197	185	6	12	28	0	28	7.1
381.00	El Dorado Diamond Springs	0	116	111	3	7	16	0	16	7.2
382.00	El Dorado Diamond Springs	0	223	184	8	11	25	0	25	8.8
383.00	Unincorporated El Dorado County (Remainder Area)	0	2,363	2,390	65	80	179	0	179	13.2
384.00	El Dorado Diamond Springs	0	4,513	4,460	124	174	390	0	390	11.6
385.00	El Dorado Diamond Springs	0	14,303	13,870	546	600	1,346	14	1,360	10.5
386.00	El Dorado Diamond Springs	0	2,242	2,238	60	90	202	0	202	11.1
387.00	El Dorado Diamond Springs	0	3,295	743	474	36	81	44	124	26.5
388.00	El Dorado Diamond Springs	0	5,471	0	2,617	0	0	278	278	19.7
389.00	El Dorado Diamond Springs	0	5,917	19	2,159	2	5	240	245	24.2
390.00	El Dorado Diamond Springs	0	7,363	4,844	742	311	670	54	724	10.2
391.00	El Dorado Diamond Springs	0	6,061	143	977	11	24	92	116	52.3
392.00	El Dorado Diamond Springs	0	1,017	474	89	28	60	5	66	15.5
393.00	El Dorado Diamond Springs	0	25,735	4,749	3,818	281	645	288	932	27.6
394.00	El Dorado Diamond Springs	0	6,156	111	2,062	8	18	168	186	33.1
395.00	Placerville	1	80,239	1,452	29,808	98	206	2,613	2,819	28.5
396.00	El Dorado Diamond Springs	0	30,752	0	5,561	0	0	425	425	72.4
397.00	El Dorado Diamond Springs	0	1,456	902	121	50	109	7	116	12.5
398.00	El Dorado Diamond Springs	0	1,157	265	145	14	32	11	43	26.7
399.00	El Dorado Diamond Springs	0	961	832	33	43	99	0	99	9.7
400.00	El Dorado Diamond Springs	0	7,364	210	1,244	16	35	97	132	56.0
401.00	Placerville	0	26,989	939	4,605	57	121	337	458	58.9
402.00	El Dorado Diamond Springs	0	4,684	2,564	1,037	137	344	103	447	10.5
403.00	El Dorado Diamond Springs	0	31,743	2,625	12,752	124	267	906	1,174	27.0
404.00	El Dorado Diamond Springs	0	1,733	302	335	19	44	32	76	22.9
405.00	El Dorado Diamond Springs	0	1,678	147	252	9	21	21	41	40.5
406.00	El Dorado Diamond Springs	0	26,327	385	4,410	24	55	339	395	66.7
407.00	El Dorado Diamond Springs	0	16,284	552	3,236	39	84	285	369	44.1
408.00	El Dorado Diamond Springs	0	5,534	0	2,387	1	2	279	281	19.7
409.00	Placerville	0	38,056	3,507	8,081	162	410	610	1,019	37.3
410.00	El Dorado Diamond Springs	0	40,358	14,276	5,636	602	1,418	423	1,840	21.9
411.00	Placerville	1	55,696	5,253	11,522	335	793	982	1,775	31.4
412.00	Unincorporated El Dorado County (Remainder Area)	0	3,447	3,295	106	114	271	0	271	12.7
413.00	Placerville	0	4,925	4,571	171	199	472	1	473	10.4
414.00	El Dorado Diamond Springs	0	20,193	92	5,372	7	15	561	576	35.1
415.00	Unincorporated El Dorado County (Remainder Area)	0	438	319	43	18	38	4	42	10.4
416.00	El Dorado Diamond Springs	0	268	128	55	9	19	7	26	10.2
417.00	Placerville	1	23,025	906	4,841	55	124	424	548	42.0
418.00	Placerville	1	5,545	0	1,390	0	0	130	130	42.7
419.00	Placerville	1	6,947	0	1,220	0	0	112	112	62.1
420.00	Placerville	1	5,300	965	1,334	56	132	117	249	21.3
421.00	Placerville	1	2,560	1,457	411	81	191	28	219	11.7
422.00	Placerville	1	67,876	5,176	31,513	303	714	2,392	3,106	21.9
423.00	Unincorporated El Dorado County (Remainder Area)	0	449	389	26	21	49	1	50	9.0
424.00	Placerville	0	25,707	5,350	4,466	252	582	351	934	27.5
425.00	Placerville	0	67,883	28,973	8,157	1,390	3,090	730	3,820	17.8
426.00	Placerville	0	707	722	19	32	80	0	80	8.8
427.00	Unincorporated El Dorado County (Remainder Area)	0	3,816	4,024	101	102	255	0	255	15.0
428.00	Unincorporated El Dorado County (Remainder Area)	0	551	582	14	22	55	0	55	10.0
429.00	Unincorporated El Dorado County (Remainder Area)	0	1,195	1,391	36	35	87	0	87	13.8
430.00	Unincorporated El Dorado County (Remainder Area)	0	3,101	2,002	551	59	146	44	190	16.3
431.00	Placerville	1	13,673	509	2,265	28	59	167	226	60.5
432.00	Unincorporated El Dorado County (Remainder Area)	0	15,655	10,573	3,134	363	900	241	1,140	13.7
433.00	Placerville	1	16,977	9,966	2,291	678	1,398	175	1,572	10.8
434.00	Placerville	1	831	637	31	44	95	0	95	8.8
435.00	Placerville	1	1,294	667	234	47	100	27	127	10.2
436.00	Unincorporated El Dorado County (Remainder Area)	0	1,147	1,167	50	32	79	2	81	14.2
437.00	Unincorporated El Dorado County (Remainder Area)	0	5,364	5,893	133	147	371	0	371	14.5
438.00	Unincorporated El Dorado County (Remainder Area)	0	5,837	4,240	511	143	303	32	335	17.4
439.00	Unincorporated El Dorado County (Remainder Area)	0	9,625	4,633	1,540	169	359	90	449	21.5
440.00	Unincorporated El Dorado County (Remainder Area)	0	5,959	860	1,585	31	66	111	177	33.7
441.00	Placerville	1	399	391	11	15	35	0	35	11.4
442.00	Placerville	1	13,590	9,830	978	350	882	56	939	14.5
443.00	Unincorporated El Dorado County (Remainder Area)	0	1,949	1,875	57	59	125	0	125	15.6
444.00	Unincorporated El Dorado County (Remainder Area)	0	274	178	17	8	19	1	20	13.7

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project)

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445.00	Placerville	0	840	785	56	26	65	3	68	12.3
446.00	Placerville	1	4,262	759	702	28	65	53	119	36.0
447.00	Unincorporated El Dorado County (Remainder Area)	0	8,319	3,139	1,582	81	199	116	314	26.5
448.00	Placerville	0	1,804	2,023	52	64	161	0	161	11.2
449.00	Unincorporated El Dorado County (Remainder Area)	0	466	474	12	14	30	0	30	15.5
450.00	Unincorporated El Dorado County (Remainder Area)	0	2,342	2,193	76	84	180	0	180	13.0
451.00	Unincorporated El Dorado County (Remainder Area)	0	896	864	26	27	58	0	58	15.5
452.00	Placerville	0	6,929	3,661	930	150	321	66	387	17.9
453.00	Placerville	1	3,302	3,154	141	182	391	0	391	8.4
454.00	Unincorporated El Dorado County (Remainder Area)	0	544	475	19	28	59	0	59	9.2
455.00	Unincorporated El Dorado County (Remainder Area)	0	2,532	2,651	68	73	181	0	181	14.0
456.00	Unincorporated El Dorado County (Remainder Area)	0	1,778	1,765	51	51	109	0	109	16.2
457.00	Unincorporated El Dorado County (Remainder Area)	0	3,121	2,995	252	68	153	13	166	18.8
458.00	Placerville	0	11,438	1,914	1,841	71	157	130	287	39.9
459.00	Placerville	0	727	698	22	28	62	0	62	11.7
460.00	Unincorporated El Dorado County (Remainder Area)	0	826	790	23	22	47	0	47	17.5
461.00	Unincorporated El Dorado County (Remainder Area)	0	114	127	3	6	13	0	13	8.6
462.00	Unincorporated El Dorado County (Remainder Area)	0	2,617	1,234	406	31	67	24	91	28.9
463.00	Unincorporated El Dorado County (Remainder Area)	0	3,700	5,279	47	89	195	0	195	18.9
464.00	Unincorporated El Dorado County (Remainder Area)	0	2,775	3,381	48	55	129	0	129	21.6
465.00	Unincorporated El Dorado County (Remainder Area)	0	3,699	5,340	33	65	163	0	163	22.7
466.00	Unincorporated El Dorado County (Remainder Area)	0	3,061	3,366	114	65	143	7	150	20.5
467.00	Unincorporated El Dorado County (Remainder Area)	0	2,477	3,473	29	49	107	0	107	23.1
468.00	Unincorporated El Dorado County (Remainder Area)	0	5,792	6,853	97	128	263	0	263	22.0
469.00	Unincorporated El Dorado County (Remainder Area)	0	3,764	5,118	42	70	156	0	156	24.1
470.00	Unincorporated El Dorado County (Remainder Area)	0	1,656	2,130	23	33	72	0	72	22.9
471.00	Unincorporated El Dorado County (Remainder Area)	0	1,202	1,580	17	26	57	0	57	21.1
472.00	Unincorporated El Dorado County (Remainder Area)	0	1,199	1,614	17	26	57	0	57	21.0
473.00	Unincorporated El Dorado County (Remainder Area)	0	1,174	669	224	13	33	25	58	20.4
474.00	Unincorporated El Dorado County (Remainder Area)	0	1,751	2,019	35	42	95	0	95	18.4
475.00	Unincorporated El Dorado County (Remainder Area)	0	1,824	2,170	34	42	95	0	95	19.2
476.00	Unincorporated El Dorado County (Remainder Area)	0	4,027	894	529	16	41	34	75	53.6
477.00	Unincorporated El Dorado County (Remainder Area)	0	1,557	2,154	20	31	78	0	78	20.0
478.00	Unincorporated El Dorado County (Remainder Area)	0	1,219	1,424	24	30	66	0	66	18.4
479.00	Unincorporated El Dorado County (Remainder Area)	0	5,051	3,259	424	62	156	29	185	27.4
480.00	Unincorporated El Dorado County (Remainder Area)	0	1,685	2,424	28	31	68	1	69	24.4
481.00	Unincorporated El Dorado County (Remainder Area)	0	1,347	1,915	18	24	53	0	53	25.3
482.00	Unincorporated El Dorado County (Remainder Area)	0	6,415	8,433	88	102	226	0	226	28.4
483.00	Unincorporated El Dorado County (Remainder Area)	0	9,575	4,643	1,044	132	285	76	361	26.5
484.00	Unincorporated El Dorado County (Remainder Area)	0	8,637	4,781	1,184	104	267	118	384	22.5
485.00	Unincorporated El Dorado County (Remainder Area)	0	2,219	2,977	30	40	103	0	103	21.6
486.00	Unincorporated El Dorado County (Remainder Area)	0	5,263	7,012	76	110	249	0	249	21.2
487.00	Unincorporated El Dorado County (Remainder Area)	0	18,803	8,198	3,080	228	504	184	688	27.3
488.00	Unincorporated El Dorado County (Remainder Area)	0	5,711	7,224	105	125	283	0	283	20.2
489.00	Unincorporated El Dorado County (Remainder Area)	0	7,398	6,563	411	157	355	24	379	19.5
490.00	Unincorporated El Dorado County (Remainder Area)	0	1,514	1,794	31	35	86	0	86	17.6
491.00	Unincorporated El Dorado County (Remainder Area)	0	7,397	8,737	162	181	444	0	444	16.7
492.00	Unincorporated El Dorado County (Remainder Area)	0	8,839	3,415	1,050	76	188	72	259	34.1
493.00	Unincorporated El Dorado County (Remainder Area)	0	9,866	3,602	1,478	79	195	101	296	33.3
494.00	Unincorporated El Dorado County (Remainder Area)	0	6,350	2,974	766	71	174	55	229	27.8
495.00	Unincorporated El Dorado County (Remainder Area)	0	641	745	14	17	42	0	42	15.4
496.00	Unincorporated El Dorado County (Remainder Area)	0	7,209	4,177	716	94	232	52	284	25.4
497.00	Unincorporated El Dorado County (Remainder Area)	0	9,462	4,939	1,015	109	263	75	338	28.0
498.00	Unincorporated El Dorado County (Remainder Area)	0	3,583	4,005	177	78	176	13	189	18.9
499.00	Unincorporated El Dorado County (Remainder Area)	0	1,503	1,821	30	38	93	0	93	16.1
500.00	Unincorporated El Dorado County (Remainder Area)	0	5,346	1,114	1,179	11	24	97	121	44.1
501.00	Unincorporated El Dorado County (Remainder Area)	0	2,238	810	559	22	49	58	107	20.8
502.00	Unincorporated El Dorado County (Remainder Area)	0	7,237	8,860	141	147	349	0	349	20.7
503.00	Unincorporated El Dorado County (Remainder Area)	0	5,122	10	852	1	2	56	58	88.0
504.00	Unincorporated El Dorado County (Remainder Area)	0	13,742	5,025	1,648	140	313	103	416	33.0
505.00	Unincorporated El Dorado County (Remainder Area)	0	80	95	1	3	7	0	7	12.0
506.00	Unincorporated El Dorado County (Remainder Area)	0	996	1,013	35	28	64	1	65	15.4
507.00	Unincorporated El Dorado County (Remainder Area)	0	2,126	2,479	49	61	145	0	145	14.7
508.00	Unincorporated El Dorado County (Remainder Area)	0	4,882	2,840	1,175	85	184	114	298	16.4
509.00	Unincorporated El Dorado County (Remainder Area)	0	2,071	404	659	12	27	77	104	19.9
510.00	Unincorporated El Dorado County (Remainder Area)	0	3,526	2,906	226	92	200	15	215	16.4
511.00	Unincorporated El Dorado County (Remainder Area)	0	1,998	1,560	134	46	109	9	118	16.9
512.00	Unincorporated El Dorado County (Remainder Area)	0	1,907	2,158	44	45	107	0	107	17.8
513.00	Unincorporated El Dorado County (Remainder Area)	0	7,962	10,243	172	178	456	7	463	17.2
514.00	Unincorporated El Dorado County (Remainder Area)	0	31,265	42,725	378	714	1,830	0	1,830	17.1
515.00	Unincorporated El Dorado County (Remainder Area)	0	3,144	4,032	54	78	188	0	188	16.7
516.00	Unincorporated El Dorado County (Remainder Area)	0	7,354	9,923	103	162	391	0	391	18.8
517.00	Unincorporated El Dorado County (Remainder Area)	0	23,455	18,728	1,746	489	1,085	139	1,224	19.2
518.00	Unincorporated El Dorado County (Remainder Area)	0	13,110	12,210	809	325	745	53	799	16.4

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519.00	Unincorporated El Dorado County (Remainder Area)	0	7,737	6,132	754	162	371	60	432	17.9
520.00	Unincorporated El Dorado County (Remainder Area)	0	13,936	11,991	1,184	296	678	99	778	17.9
521.00	Unincorporated El Dorado County (Remainder Area)	0	15,950	9,138	1,685	309	686	167	853	18.7
522.00	Unincorporated El Dorado County (Remainder Area)	0	4,807	5,782	168	96	236	9	245	19.6
523.00	Unincorporated El Dorado County (Remainder Area)	0	24,752	9,934	3,165	302	698	272	970	25.5
524.00	Unincorporated El Dorado County (Remainder Area)	0	19,399	8,843	2,565	214	495	207	702	27.6
525.00	Unincorporated El Dorado County (Remainder Area)	0	4,556	5,747	60	97	233	0	233	19.6
526.00	Unincorporated El Dorado County (Remainder Area)	0	3,208	4,022	57	55	142	0	142	22.6
527.00	Unincorporated El Dorado County (Remainder Area)	0	8,794	6,878	850	186	447	71	517	17.0
528.00	Unincorporated El Dorado County (Remainder Area)	0	51,507	63,424	901	1,061	2,556	51	2,607	19.8
529.00	Unincorporated El Dorado County (Remainder Area)	0	1,258	1,214	125	19	46	8	54	23.2
530.00	Unincorporated El Dorado County (Remainder Area)	0	13,310	17,556	225	226	551	0	551	24.2
531.00	Unincorporated El Dorado County (Remainder Area)	0	3,810	4,993	62	59	144	0	144	26.5
532.00	Unincorporated El Dorado County (Remainder Area)	0	3,637	4,552	65	64	156	0	156	23.3
533.00	Unincorporated El Dorado County (Remainder Area)	0	11,686	9,313	996	151	367	53	420	27.9
534.00	Unincorporated El Dorado County (Remainder Area)	0	4,275	5,410	72	69	168	0	168	25.4
535.00	Unincorporated El Dorado County (Remainder Area)	0	5,356	6,700	85	95	245	0	245	21.9
536.00	Unincorporated El Dorado County (Remainder Area)	0	5,487	6,927	84	106	273	0	273	20.1
537.00	Unincorporated El Dorado County (Remainder Area)	0	10,926	14,277	140	208	536	0	536	20.4
538.00	Unincorporated El Dorado County (Remainder Area)	0	15,658	7,329	1,862	159	382	137	519	30.2
539.00	Unincorporated El Dorado County (Remainder Area)	0	13,692	1,969	1,929	11	27	142	169	81.0
540.00	Unincorporated El Dorado County (Remainder Area)	0	9,698	0	1,708	0	0	132	132	73.3
541.00	Unincorporated El Dorado County (Remainder Area)	0	2,581	833	303	18	43	24	67	38.4
542.00	Unincorporated El Dorado County (Remainder Area)	0	6,183	2,183	976	55	130	76	206	30.0
543.00	Unincorporated El Dorado County (Remainder Area)	0	32,542	1,668	6,413	50	118	368	486	66.9
544.00	Unincorporated El Dorado County (Remainder Area)	0	2,511	2,667	63	58	137	0	137	18.3
545.00	Unincorporated El Dorado County (Remainder Area)	0	1,418	1,746	21	27	64	0	64	22.2
546.00	Unincorporated El Dorado County (Remainder Area)	0	7,973	9,976	117	131	310	0	310	25.7
547.00	Unincorporated El Dorado County (Remainder Area)	0	4,947	529	768	13	31	64	95	52.2
548.00	Unincorporated El Dorado County (Remainder Area)	0	15,306	17,415	605	405	960	27	987	15.5
549.00	Unincorporated El Dorado County (Remainder Area)	0	2,385	2,747	64	54	128	1	129	18.5
550.00	Unincorporated El Dorado County (Remainder Area)	0	6,383	1,693	1,005	40	100	62	162	39.3
551.00	Unincorporated El Dorado County (Remainder Area)	0	9,019	1,806	1,369	46	115	87	202	44.6
552.00	Unincorporated El Dorado County (Remainder Area)	0	1,064	452	107	11	26	6	32	33.2
553.00	Unincorporated El Dorado County (Remainder Area)	0	1,474	1,726	33	35	83	0	83	17.8
554.00	Unincorporated El Dorado County (Remainder Area)	0	6,753	7,853	191	185	438	5	443	15.2
555.00	Unincorporated El Dorado County (Remainder Area)	0	1,553	1,743	31	39	92	0	92	16.9
556.00	Unincorporated El Dorado County (Remainder Area)	0	4,482	5,411	81	89	211	0	211	21.3
557.00	Unincorporated El Dorado County (Remainder Area)	0	1,809	1,537	217	34	81	20	101	18.0
558.00	Unincorporated El Dorado County (Remainder Area)	0	2,002	2,488	28	40	96	0	96	20.8
559.00	Unincorporated El Dorado County (Remainder Area)	0	1,255	1,450	22	28	67	0	67	18.7
560.00	Unincorporated El Dorado County (Remainder Area)	0	5,918	1,183	1,769	28	66	172	238	24.8
561.00	Unincorporated El Dorado County (Remainder Area)	0	895	1,012	19	23	54	0	54	16.5
562.00	Unincorporated El Dorado County (Remainder Area)	0	3,761	4,641	56	73	175	0	175	21.4
563.00	Unincorporated El Dorado County (Remainder Area)	0	2,088	2,681	24	40	90	0	90	23.2
564.00	Unincorporated El Dorado County (Remainder Area)	0	1,034	1,202	25	27	62	0	62	16.6
565.00	Unincorporated El Dorado County (Remainder Area)	0	2,166	2,300	53	69	143	0	143	15.2
566.00	Unincorporated El Dorado County (Remainder Area)	0	3,917	3,936	142	112	264	5	269	14.5
567.00	Unincorporated El Dorado County (Remainder Area)	0	3,092	684	588	29	60	50	110	28.1
568.00	Unincorporated El Dorado County (Remainder Area)	0	2,953	744	559	26	61	47	108	27.3
569.00	Unincorporated El Dorado County (Remainder Area)	0	7,051	1,965	1,097	72	169	96	265	26.6
570.00	Unincorporated El Dorado County (Remainder Area)	0	8,726	1,165	1,877	53	109	169	278	31.4
571.00	Unincorporated El Dorado County (Remainder Area)	0	1,096	1,116	28	38	79	0	79	13.9
572.00	Unincorporated El Dorado County (Remainder Area)	0	4,771	1,214	976	39	90	89	178	26.7
573.00	Unincorporated El Dorado County (Remainder Area)	0	7,929	9,661	127	126	284	0	284	27.9
574.00	Unincorporated El Dorado County (Remainder Area)	0	4,381	5,544	54	88	204	1	205	21.4
575.00	Unincorporated El Dorado County (Remainder Area)	0	2,789	4,004	22	37	86	0	86	32.6
576.00	Unincorporated El Dorado County (Remainder Area)	0	2,757	849	326	19	43	33	76	36.4
577.00	Unincorporated El Dorado County (Remainder Area)	0	525	628	8	14	32	0	32	16.6
578.00	Unincorporated El Dorado County (Remainder Area)	0	24,968	38,006	126	451	1,016	0	1,016	24.6
579.00	Unincorporated El Dorado County (Remainder Area)	0	2,769	3,987	21	41	96	0	96	28.8
580.00	Unincorporated El Dorado County (Remainder Area)	0	2,442	3,296	26	42	98	0	98	24.8
581.00	Unincorporated El Dorado County (Remainder Area)	0	4,757	6,976	39	66	146	0	146	32.6
582.00	Unincorporated El Dorado County (Remainder Area)	0	13,241	988	1,624	15	37	65	102	129.9
583.00	Unincorporated El Dorado County (Remainder Area)	0	30,827	46,296	294	446	987	15	1,002	30.8
584.00	Unincorporated El Dorado County (Remainder Area)	0	2,111	2,051	107	22	47	6	53	39.9
585.00	Unincorporated El Dorado County (Remainder Area)	0	9,889	13,997	95	148	327	0	327	30.2
586.00	Unincorporated El Dorado County (Remainder Area)	0	3,746	2,837	262	56	105	10	115	32.6
587.00	Unincorporated El Dorado County (Remainder Area)	0	1,942	2,722	23	48	116	0	116	16.8
588.00	Unincorporated El Dorado County (Remainder Area)	0	15,805	22,366	147	348	892	0	892	17.7
589.00	Unincorporated El Dorado County (Remainder Area)	0	238	287	6	8	16	0	16	14.9
590.00	Unincorporated El Dorado County (Remainder Area)	0	811	1,018	14	23	55	0	55	14.8
591.00	Unincorporated El Dorado County (Remainder Area)	0	67	85	1	3	7	0	7	9.3
592.00	Unincorporated El Dorado County (Remainder Area)	0	14,417	9,268	1,299	361	801	146	947	15.2

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
593.00	Unincorporated El Dorado County (Remainder Area)	0	6,830	5,804	535	155	370	56	426	16.0
594.00	Unincorporated El Dorado County (Remainder Area)	0	11,214	14,858	165	316	754	0	754	14.9
595.00	Unincorporated El Dorado County (Remainder Area)	0	4,058	2,661	254	46	104	27	131	31.0
596.00	Unincorporated El Dorado County (Remainder Area)	0	5,263	3,025	499	59	151	48	199	26.4
597.00	Unincorporated El Dorado County (Remainder Area)	0	12,392	3,024	1,777	122	271	214	485	25.5
598.00	Unincorporated El Dorado County (Remainder Area)	0	8,849	381	1,460	15	33	166	200	44.3
599.00	Unincorporated El Dorado County (Remainder Area)	0	620	755	12	18	40	0	40	15.6
600.00	Unincorporated El Dorado County (Remainder Area)	0	11,415	8,069	1,057	217	481	94	575	19.8
601.00	Unincorporated El Dorado County (Remainder Area)	0	1,332	1,847	5	11	24	0	24	54.8
602.00	Unincorporated El Dorado County (Remainder Area)	0	1,872	115	237	3	6	9	15	128.0
603.00	Unincorporated El Dorado County (Remainder Area)	0	3,602	464	931	12	23	32	55	66.1
604.00	Unincorporated El Dorado County (Remainder Area)	0	3,292	628	454	17	31	13	44	75.1
605.00	Unincorporated El Dorado County (Remainder Area)	0	2,860	915	814	21	46	29	75	38.3
606.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
607.00	Unincorporated El Dorado County (Remainder Area)	0	3,216	4,485	12	19	47	0	47	68.8
608.00	Unincorporated El Dorado County (Remainder Area)	0	30	41	0	1	2	0	2	13.9
609.00	Unincorporated El Dorado County (Remainder Area)	0	9,836	1,516	1,544	37	80	61	141	69.6
610.00	El Dorado Hills	0	60,411	138	27,784	0	0	2,725	2,725	22.2
611.00	El Dorado Hills	0	59,429	35,355	8,717	1,023	2,614	672	3,286	18.1
612.00	El Dorado Hills	0	128,034	1,043	61,734	0	0	5,778	5,778	22.2
613.00	Unincorporated El Dorado County (Remainder Area)	0	119	104	18	4	10	3	13	9.3
614.00	El Dorado Hills	0	6,346	7,533	135	211	550	0	550	11.5
615.00	El Dorado Hills	0	10,601	8,902	718	211	550	60	609	17.4
616.00	El Dorado Hills	0	1,586	1,893	33	53	138	0	138	11.5
617.00	El Dorado Hills	0	13,959	9,802	893	187	553	89	642	21.8
618.00	El Dorado Hills	0	4,660	0	2,105	0	0	265	265	17.6
619.00	El Dorado Hills	0	3,475	0	563	0	0	60	60	57.9
620.00	El Dorado Hills	0	17,382	3,671	1,572	0	0	178	178	97.7
621.00	El Dorado Hills	0	12,646	16,476	217	326	963	0	963	13.1
622.00	El Dorado Hills	0	19,431	18,246	1,111	370	1,094	90	1,184	16.4
623.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
624.00	El Dorado Hills	0	15,295	14,665	671	309	918	54	972	15.7
625.00	El Dorado Hills	0	181	0	104	0	0	12	12	15.1
626.00	Unincorporated El Dorado County (Remainder Area)	0	37,284	5,044	5,624	164	386	554	939	39.7
627.00	Unincorporated El Dorado County (Remainder Area)	0	57,097	0	10,600	0	0	966	966	59.1
628.00	Unincorporated El Dorado County (Remainder Area)	0	19,857	23,703	452	515	1,322	0	1,322	15.0
629.00	Unincorporated El Dorado County (Remainder Area)	0	28,906	0	11,775	0	0	1,704	1,704	17.0
630.00	Unincorporated El Dorado County (Remainder Area)	0	104,952	139,252	1,449	3,236	9,537	0	9,537	11.0
631.00	Unincorporated El Dorado County (Remainder Area)	0	9,420	0	1,375	0	0	146	146	64.5
632.00	Unincorporated El Dorado County (Remainder Area)	0	1,677	2,057	32	53	138	0	138	12.1
633.00	Unincorporated El Dorado County (Remainder Area)	0	7,098	8,556	148	211	550	0	550	12.9
634.00	Unincorporated El Dorado County (Remainder Area)	0	7,438	9,042	150	212	552	0	552	13.5
635.00	Unincorporated El Dorado County (Remainder Area)	0	3,643	4,423	72	106	276	0	276	13.2
636.00	Unincorporated El Dorado County (Remainder Area)	0	6,119	8,422	135	212	556	0	556	11.0
637.00	Unincorporated El Dorado County (Remainder Area)	0	9,557	11,724	187	265	695	0	695	13.8
638.00	Unincorporated El Dorado County (Remainder Area)	0	1,288	1,616	22	36	94	0	94	13.6
639.00	Unincorporated El Dorado County (Remainder Area)	0	2,761	3,376	52	72	189	0	189	14.6
640.00	Unincorporated El Dorado County (Remainder Area)	0	9,626	11,953	183	272	713	0	713	13.5
641.00	Unincorporated El Dorado County (Remainder Area)	0	2,789	3,450	52	72	189	0	189	14.8
642.00	Unincorporated El Dorado County (Remainder Area)	0	36,741	38,833	1,580	926	2,421	96	2,517	14.6
643.00	Unincorporated El Dorado County (Remainder Area)	0	9,371	11,646	180	257	672	0	672	13.9
644.00	Unincorporated El Dorado County (Remainder Area)	0	3,100	3,919	54	90	238	0	238	13.0
645.00	Unincorporated El Dorado County (Remainder Area)	0	21,335	25,171	917	495	1,311	56	1,367	15.6
646.00	Unincorporated El Dorado County (Remainder Area)	0	7,137	8,938	124	180	477	0	477	15.0
647.00	Unincorporated El Dorado County (Remainder Area)	0	1,509	1,894	26	45	119	0	119	12.7
648.00	Unincorporated El Dorado County (Remainder Area)	0	3,895	2,236	513	45	119	42	161	24.2
649.00	Unincorporated El Dorado County (Remainder Area)	0	4,701	2,837	29	45	119	0	119	39.5
650.00	Outside of County	0	2,938,572	1,491,020	495,613	0	0	0	0	-
651.00	Outside of County	0	29,965	17,043	4,120	0	0	0	0	-
652.00	Outside of County	0	0	0	0	0	0	0	0	-
653.00	Outside of County	0	419,259	187,803	51,767	0	0	0	0	-
654.00	Outside of County	0	41,882	9,364	2,427	0	0	0	0	-
655.00	Outside of County	0	353,735	119,832	34,188	0	0	0	0	-
656.00	Outside of County	0	56,605	18,583	7,134	0	0	0	0	-
657.00	Outside of County	0	196,631	9,061	3,608	0	0	0	0	-
658.00	Outside of County	0	0	0	0	0	0	0	0	-
659.00	Outside of County	0	5,756	2,998	939	0	0	0	0	-
660.00	Outside of County	0	182,262	101,471	33,972	0	0	0	0	-
661.00	Outside of County	0	149,181	78,756	24,591	0	0	0	0	-
662.00	Outside of County	0	711,442	372,571	122,013	0	0	0	0	-
663.00	Outside of County	0	735,990	259,511	80,968	0	0	0	0	-
664.00	Outside of County	0	452,444	246,666	66,667	0	0	0	0	-
665.00	Outside of County	0	221,531	97,056	36,135	0	0	0	0	-
666.00	Outside of County	0	102,415	56,436	17,334	0	0	0	0	-

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
667.00	Outside of County	0	0	0	0	0	0	0	0	-
668.00	Outside of County	0	535,640	362,296	0	0	0	0	0	-
669.00	Outside of County	0	0	0	0	0	0	0	0	-
670.00	Outside of County	0	0	0	0	0	0	0	0	-
671.00	Outside of County	0	203,877	110,291	30,795	0	0	0	0	-
672.00	Outside of County	0	38,779	38,872	0	0	0	0	0	-
673.00	Outside of County	0	33,665	16,665	0	0	0	0	0	-
674.00	Outside of County	0	405,025	27,470	0	0	0	0	0	-

2018 Baseline Scenario (Plus Project - Mitigation)

VMT Summary by Jurisdiction - 2018 Baseline Scenario (Plus Project - Mitigation)

	VMT Estimates			VMT Efficiency Metrics			Population Details				
Jurisdiction	Total OD VMT	Home-based PA VMT	Home-based Work PA VMT	Total VMT per Service Population	Home-based VMT per Capita	Home-based Work VMT per Employee	Total Households	Total Population	Total Employment	Total Service Population	Persons Per Household
City of Placerville	298,849	68,407	90,498	21.0	10.4	11.8	2,914	6,581	7,639	14,220	2.26
Unincorporated El Dorado County	3,863,253	3,281,733	435,704	21.4	22.5	12.5	58,291	145,645	34,923	180,568	2.50
629	32,091	0	12,238	20.1		7.7	0	0	1,595	1,595	
630	130,380	181,281	1,284	13.7	19.0		3,236	9,537	0	9,537	2.95
631	15,068	0	2,111	74.6			0	0	202	202	
				Threshold	19.3	11.1					

VMT Summary by Jurisdiction - 2018 Baseline Scenario (Plus Project - Mitigation)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
1.00	Unincorporated El Dorado County (Remainder Area)	0	4,175	2,585	331	46	75	16	91	46.1
2.00	Unincorporated El Dorado County (Remainder Area)	0	22,905	31,555	468	525	1,185	34	1,219	18.8
3.00	Unincorporated El Dorado County (Remainder Area)	0	2,962	3,765	43	34	88	0	88	33.8
4.00	Unincorporated El Dorado County (Remainder Area)	0	1,539	1,531	52	16	34	2	36	43.1
5.00	Unincorporated El Dorado County (Remainder Area)	0	2,870	4,042	27	33	73	0	73	39.6
6.00	Unincorporated El Dorado County (Remainder Area)	0	12,316	15,753	356	270	646	9	655	18.8
7.00	Unincorporated El Dorado County (Remainder Area)	0	25,775	33,321	1,002	516	1,119	71	1,190	21.7
8.00	Unincorporated El Dorado County (Remainder Area)	0	2,721	785	755	14	36	60	96	28.3
9.00	Unincorporated El Dorado County (Remainder Area)	0	28,881	33,580	1,713	482	1,240	117	1,357	21.3
10.00	Outside of County	0	0	0	0	0	0	0	0	-
11.00	Outside of County	0	0	0	0	0	0	0	0	-
12.00	Outside of County	0	40,058	31,492	1,882	663	1,741	96	1,837	21.8
13.00	Outside of County	0	31,250	36,069	693	775	1,995	0	1,995	15.7
14.00	Outside of County	0	64,747	72,451	1,591	1,502	4,068	32	4,100	15.8
15.00	Outside of County	0	500	528	10	10	23	0	23	22.2
16.00	Outside of County	0	55,913	8,936	7,443	149	378	434	812	68.8
17.00	Outside of County	0	0	0	0	0	0	0	0	-
18.00	Outside of County	0	1,565	629	67	41	116	0	116	13.5
19.00	Outside of County	0	0	0	0	0	0	0	0	-
20.00	Outside of County	0	220	18	120	1	1	5	6	36.7
21.00	Outside of County	0	5,296	50	2,587	1	2	112	114	46.5
22.00	Outside of County	0	2,248	268	588	2	6	23	29	77.5
23.00	Outside of County	0	59,598	24,110	6,405	101	273	244	517	115.4
24.00	Outside of County	0	48	30	1	1	1	0	1	48.0
25.00	Outside of County	0	0	0	0	0	0	0	0	-
26.00	Outside of County	0	0	0	0	0	0	0	0	-
27.00	Outside of County	0	1,336	266	511	2	6	22	28	47.7
28.00	Outside of County	0	12,529	14,650	385	123	332	6	338	37.1
29.00	Outside of County	0	7,973	9,202	248	72	192	5	197	40.5
30.00	Outside of County	0	6,077	0	3,254	0	0	133	133	45.7
31.00	Outside of County	0	5,565	4,116	1,061	44	94	45	139	40.0
32.00	Outside of County	0	25,073	6,951	623	676	1,526	0	1,526	16.4
33.00	Outside of County	0	0	0	0	0	0	0	0	-
34.00	Outside of County	0	8,755	9,483	596	75	191	16	207	42.3
35.00	Outside of County	0	0	0	0	0	0	0	0	-
36.00	Outside of County	0	0	0	0	0	0	0	0	-
37.00	Outside of County	0	5,093	0	2,709	0	0	178	178	28.6
38.00	Outside of County	0	0	0	0	0	0	0	0	-
39.00	Outside of County	0	24,522	22,452	3,341	666	1,569	227	1,796	13.7
40.00	Outside of County	0	115,100	26,391	19,186	916	2,079	1,839	3,918	29.4
41.00	Outside of County	0	30,858	26,394	3,994	544	1,271	203	1,474	20.9
42.00	Outside of County	0	0	0	0	0	0	0	0	-
43.00	Outside of County	0	53,386	62,938	1,230	828	2,045	0	2,045	26.1
44.00	Outside of County	0	79,718	76,712	3,328	1,069	2,614	95	2,709	29.4
45.00	Outside of County	0	102,038	24,269	14,737	906	2,057	1,357	3,414	29.9
46.00	Outside of County	0	0	0	0	0	0	0	0	-
47.00	Outside of County	0	101,477	0	43,237	0	0	2,398	2,398	42.3
48.00	Outside of County	0	80,529	75,808	3,572	1,203	3,068	121	3,189	25.3
49.00	Outside of County	0	153,622	0	79,283	0	0	4,642	4,642	33.1
50.00	Outside of County	0	120,697	84,630	19,603	1,025	2,430	826	3,256	37.1
51.00	Outside of County	0	126,162	68,346	18,374	1,768	4,253	1,237	5,490	23.0
52.00	Outside of County	0	46,537	25,814	4,532	297	667	240	907	51.3
53.00	Outside of County	0	114,520	87,049	8,630	1,335	3,452	377	3,829	29.9
54.00	Outside of County	0	95,745	36,486	39,717	476	1,153	1,827	2,980	32.1
55.00	Outside of County	0	83,348	38,338	12,690	675	1,583	800	2,383	35.0
56.00	Outside of County	0	34,776	39,656	1,009	820	1,933	4	1,937	18.0
57.00	Outside of County	0	162,666	0	115,137	0	0	7,375	7,375	22.1
58.00	Outside of County	0	43,818	24,154	6,913	465	1,160	388	1,548	28.3
59.00	Outside of County	0	424	110	175	2	4	9	13	32.6
60.00	Outside of County	0	206,455	17,283	104,684	238	478	4,236	4,714	43.8
61.00	Outside of County	0	273,466	190,283	22,655	2,205	5,227	797	6,024	45.4
62.00	Outside of County	0	55,376	317	27,070	4	8	1,150	1,158	47.8
63.00	Outside of County	0	115,595	18,407	52,590	340	756	3,083	3,839	30.1
64.00	Outside of County	0	79,806	59,741	11,595	865	2,156	560	2,716	29.4
65.00	Outside of County	0	10,414	11,448	220	136	338	0	338	30.8
66.00	Outside of County	0	62,146	50,245	4,331	826	1,950	172	2,122	29.3
67.00	Outside of County	0	10,480	0	2,844	0	0	178	178	58.9
68.00	Outside of County	0	55,273	32,355	11,957	616	1,314	679	1,993	27.7
69.00	Outside of County	0	145,256	91,080	38,920	1,588	4,122	2,320	6,442	22.5
70.00	Outside of County	0	211,286	833	128,165	0	0	6,956	6,956	30.4
71.00	Outside of County	0	107,544	110,404	4,965	1,231	3,088	121	3,209	33.5
72.00	Outside of County	0	255,166	375	135,858	0	0	5,133	5,133	49.7
73.00	Outside of County	0	123,572	0	81,244	0	0	5,627	5,627	22.0
74.00	Outside of County	0	177,221	21,860	82,480	435	1,022	4,728	5,750	30.8

VMT Summary by Jurisdiction - 2018 Baseline Scenario (Plus Project - Mitigation)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
75.00	Outside of County	0	106,682	77,261	27,734	1,936	4,401	1,866	6,267	17.0
76.00	Outside of County	0	42,335	23,507	5,084	508	1,352	297	1,649	25.7
77.00	Outside of County	0	167,242	79,220	34,988	1,155	2,810	1,659	4,469	37.4
78.00	Outside of County	0	89,422	0	24,165	0	0	1,567	1,567	57.1
79.00	Outside of County	0	970	0	0	0	0	20	20	48.5
80.00	Outside of County	0	50,614	0	24,197	0	0	1,410	1,410	35.9
81.00	Outside of County	0	161,635	0	84,268	0	0	4,951	4,951	32.6
82.00	Outside of County	0	56,431	0	30,260	0	0	1,787	1,787	31.6
83.00	Outside of County	0	0	0	0	0	0	0	0	-
84.00	Outside of County	0	64,786	48,152	6,641	1,226	2,817	405	3,222	20.1
85.00	Outside of County	0	72,345	59,917	4,781	1,295	3,246	253	3,499	20.7
86.00	Outside of County	0	111,837	74,501	11,553	1,968	4,487	754	5,241	21.3
87.00	Outside of County	0	103,604	66,162	13,130	2,114	4,344	800	5,144	20.1
88.00	Outside of County	0	86,861	47,668	12,149	1,099	2,679	762	3,441	25.2
89.00	Outside of County	0	11,371	0	4,747	0	0	293	293	38.8
90.00	Outside of County	0	54,067	0	11,083	0	0	592	592	91.3
91.00	Outside of County	0	123,982	16,171	50,750	383	961	4,100	5,061	24.5
92.00	Outside of County	0	60,002	56,279	3,326	1,139	2,709	141	2,850	21.1
93.00	Outside of County	0	0	0	0	0	0	0	0	-
94.00	Outside of County	0	433	479	9	6	15	0	15	28.8
95.00	Outside of County	0	935	0	446	0	0	27	27	34.6
96.00	Outside of County	0	343	0	175	0	0	12	12	28.6
97.00	Outside of County	0	110	102	3	2	4	0	4	27.5
98.00	Outside of County	0	76,670	352	27,361	10	25	2,289	2,314	33.1
99.00	Outside of County	0	50,126	27,226	11,958	791	1,944	958	2,902	17.3
100.00	Outside of County	0	6,019	7,000	130	84	203	0	203	29.6
101.00	Outside of County	0	12,158	0	6,140	0	0	320	320	38.0
102.00	Outside of County	0	6,012	5,232	1,012	51	153	53	206	29.2
103.00	Outside of County	0	58,831	67,993	1,415	910	2,200	0	2,200	26.7
104.00	Outside of County	0	0	0	0	0	0	0	0	-
105.00	Outside of County	0	0	0	0	0	0	0	0	-
106.00	Outside of County	0	2,879	0	1,464	0	0	70	70	41.1
107.00	Outside of County	0	86,610	0	46,052	0	0	3,135	3,135	27.6
108.00	Outside of County	0	439	0	203	0	0	15	15	29.3
109.00	Outside of County	0	19,063	0	4,290	0	0	238	238	80.1
110.00	Outside of County	0	64,244	8,785	29,224	205	426	1,610	2,036	31.6
111.00	Outside of County	0	138,374	12,431	25,362	350	728	1,151	1,879	73.7
112.00	Outside of County	0	198,645	38,907	42,677	747	1,946	2,117	4,063	48.9
113.00	Outside of County	0	92,054	0	47,666	0	0	4,022	4,022	22.9
114.00	Outside of County	0	41,079	30,378	7,810	770	1,950	660	2,610	15.7
115.00	Outside of County	0	0	0	0	0	0	0	0	-
116.00	Outside of County	0	0	0	0	0	0	0	0	-
117.00	Outside of County	0	87,364	33,111	23,858	401	1,031	1,492	2,523	34.6
118.00	Outside of County	0	92,499	84,084	3,782	2,313	5,898	187	6,085	15.2
119.00	Outside of County	0	171,556	7,953	75,605	214	522	6,545	7,067	24.3
120.00	Outside of County	0	197,888	0	57,601	0	0	4,131	4,131	47.9
121.00	Outside of County	0	168,190	57,756	22,609	1,642	4,261	1,724	5,985	28.1
122.00	Outside of County	0	67,698	20,323	12,546	619	1,530	1,071	2,601	26.0
123.00	Outside of County	0	53,294	7,559	10,812	200	529	855	1,384	38.5
124.00	Outside of County	0	81,620	55,087	5,672	1,240	2,628	328	2,956	27.6
125.00	Outside of County	0	60,825	10,911	9,381	389	801	781	1,582	38.5
126.00	Outside of County	0	15,870	4,391	1,805	136	279	129	408	38.9
127.00	Outside of County	0	38,841	34,447	2,047	800	1,693	117	1,810	21.5
128.00	Outside of County	0	86,342	40,246	11,139	999	2,062	767	2,829	30.5
129.00	Outside of County	0	43,062	46,736	827	994	2,246	0	2,246	19.2
130.00	Outside of County	0	32,020	10,063	4,112	369	740	416	1,156	27.7
131.00	Outside of County	0	76,489	20,772	13,765	607	1,234	1,278	2,512	30.4
132.00	Outside of County	0	34,181	20,631	4,040	407	894	260	1,154	29.6
133.00	Outside of County	0	134,122	63,831	14,892	2,087	5,211	1,475	6,686	20.1
134.00	Outside of County	0	70,877	32,240	18,644	1,075	2,460	1,492	3,952	17.9
135.00	Outside of County	0	43,912	0	24,177	0	0	2,114	2,114	20.8
136.00	Outside of County	0	31,978	28,684	1,660	669	1,669	82	1,751	18.3
137.00	Outside of County	0	139,453	104,529	9,471	2,349	6,735	673	7,408	18.8
138.00	El Dorado Diamond Springs	0	5,514	5,303	426	161	367	25	392	14.1
139.00	El Dorado Diamond Springs	0	3,988	1,752	665	62	135	55	190	21.0
140.00	El Dorado Diamond Springs	0	24,443	262	5,021	10	27	383	410	59.6
141.00	Unincorporated El Dorado County (Remainder Area)	0	2,105	1,999	80	21	49	2	51	41.4
142.00	Unincorporated El Dorado County (Remainder Area)	0	7,360	7,938	176	157	353	0	353	20.8
143.00	Unincorporated El Dorado County (Remainder Area)	0	3,593	3,717	132	93	209	4	213	16.9
144.00	Unincorporated El Dorado County (Remainder Area)	0	3,885	3,961	292	74	186	19	205	18.9
145.00	Unincorporated El Dorado County (Remainder Area)	0	800	827	23	30	69	0	69	11.7
146.00	El Dorado Diamond Springs	0	3,804	1,763	628	64	145	51	196	19.4
147.00	El Dorado Diamond Springs	0	4,289	4,505	134	159	359	0	359	11.9
148.00	Outside of County	0	190,064	257,047	7,141	2,250	5,293	137	5,430	35.0

VMT Summary by Jurisdiction - 2018 Baseline Scenario (Plus Project - Mitigation)

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149.00	Shingle Springs	0	6,743	1,745	1,406	37	98	112	210	32.1
150.00	Unincorporated El Dorado County (Remainder Area)	0	7,804	8,567	225	109	260	3	263	29.7
151.00	Unincorporated El Dorado County (Remainder Area)	0	1,491	2,061	20	23	67	0	67	22.2
152.00	Shingle Springs	0	9,803	6,296	1,398	122	315	99	414	23.7
153.00	Unincorporated El Dorado County (Remainder Area)	0	6,423	6,652	214	178	388	5	393	16.3
154.00	Unincorporated El Dorado County (Remainder Area)	0	3,279	3,424	205	84	196	16	212	15.5
155.00	Shingle Springs	0	2,694	3,192	55	62	161	0	161	16.7
156.00	Unincorporated El Dorado County (Remainder Area)	0	2,360	2,795	39	27	67	0	67	35.1
157.00	El Dorado Hills	0	11,501	14,744	185	274	807	0	807	14.2
158.00	Cameron Park	0	22,488	25,840	992	598	1,373	72	1,445	15.6
159.00	Cameron Park	0	13,013	17,070	225	340	878	1	879	14.8
160.00	Shingle Springs	0	7,959	9,927	156	194	501	0	501	15.9
161.00	El Dorado Hills	0	5,847	7,624	83	105	283	0	283	20.7
162.00	El Dorado Hills	0	72,256	99,901	959	1,503	4,414	0	4,414	16.4
163.00	El Dorado Hills	0	348	364	36	7	21	4	25	14.2
164.00	El Dorado Hills	0	27,489	0	14,105	0	0	1,232	1,232	22.3
165.00	El Dorado Hills	0	16,715	19,883	360	373	997	0	997	16.8
166.00	Outside of County	0	41,562	42,175	1,370	749	1,892	49	1,941	21.4
167.00	El Dorado Hills	0	50,433	52,492	2,120	1,297	2,904	55	2,959	17.0
168.00	El Dorado Hills	0	30,758	36,588	923	1,125	2,519	9	2,528	12.2
169.00	El Dorado Hills	0	101,341	157	20,750	0	0	1,688	1,688	60.0
170.00	El Dorado Hills	0	27,161	0	14,930	0	0	1,357	1,357	20.0
171.00	El Dorado Hills	0	14,296	12,878	749	441	790	20	810	17.7
172.00	El Dorado Hills	0	8,168	0	1,925	0	0	168	168	48.6
173.00	El Dorado Hills	0	29,472	0	6,261	0	0	547	547	53.9
174.00	Unincorporated El Dorado County (Remainder Area)	0	2,246	1,567	252	15	37	11	48	46.4
175.00	Unincorporated El Dorado County (Remainder Area)	0	963	886	97	11	26	5	31	30.8
176.00	Unincorporated El Dorado County (Remainder Area)	0	2,066	2,345	41	29	69	0	69	29.9
177.00	Unincorporated El Dorado County (Remainder Area)	0	833	708	119	10	25	7	32	26.1
178.00	Unincorporated El Dorado County (Remainder Area)	0	2,105	2,446	40	30	77	0	77	27.2
179.00	Unincorporated El Dorado County (Remainder Area)	0	9	16	0	1	3	0	3	3.4
180.00	El Dorado Hills	0	2,960	3,707	43	58	149	0	149	19.8
181.00	El Dorado Hills	0	1,316	8	570	1	3	58	61	21.7
182.00	Cameron Park	0	51,789	70,116	694	1,186	3,202	0	3,202	16.2
183.00	Unincorporated El Dorado County (Remainder Area)	0	5,844	7,411	85	152	355	0	355	16.5
184.00	Cameron Park	0	26,221	20,391	2,589	357	964	300	1,264	20.7
185.00	Cameron Park	0	5,237	6,760	75	149	342	0	342	15.3
186.00	Cameron Park	0	598	103	183	3	7	28	35	17.1
187.00	Cameron Park	0	10,157	10,297	886	239	549	85	634	16.0
188.00	Cameron Park	0	7,287	7,490	703	188	432	69	501	14.6
189.00	Unincorporated El Dorado County (Remainder Area)	0	2,917	3,727	44	37	104	0	104	28.2
190.00	Unincorporated El Dorado County (Remainder Area)	0	11,357	14,942	176	237	663	0	663	17.1
191.00	El Dorado Hills	0	824	1,103	11	19	53	0	53	15.5
192.00	El Dorado Hills	0	1,091	1,446	15	25	70	0	70	15.7
193.00	El Dorado Hills	0	8,831	4,395	2,526	100	253	246	499	17.7
194.00	El Dorado Hills	0	18,388	23,859	278	439	1,285	0	1,285	14.3
195.00	El Dorado Hills	0	1,627	537	191	10	26	14	40	41.2
196.00	Outside of County	0	46,212	51,396	1,530	923	2,503	82	2,585	17.9
197.00	El Dorado Hills	0	3,982	4,963	67	86	219	0	219	18.2
198.00	El Dorado Hills	0	58,753	47,360	4,620	887	2,482	453	2,935	20.0
199.00	El Dorado Hills	0	11,236	3,721	1,600	62	173	120	293	38.3
200.00	El Dorado Hills	0	3,384	335	769	7	18	67	85	39.9
201.00	El Dorado Hills	0	13,401	8,499	2,767	150	439	301	740	18.1
202.00	El Dorado Hills	0	42,124	41,900	2,371	737	2,062	199	2,261	18.6
203.00	El Dorado Hills	0	51,246	65,915	1,799	1,043	3,061	139	3,200	16.0
204.00	El Dorado Hills	0	18,946	20,170	614	362	1,067	41	1,108	17.1
205.00	El Dorado Hills	0	1,685	0	786	0	0	80	80	21.1
206.00	El Dorado Hills	0	2,101	2,733	30	52	153	0	153	13.7
207.00	El Dorado Hills	0	15,070	20,008	231	296	869	0	869	17.3
208.00	Unincorporated El Dorado County (Remainder Area)	0	414	564	5	9	26	0	26	15.7
209.00	El Dorado Hills	0	2,996	3,572	172	55	161	14	175	17.1
210.00	El Dorado Hills	0	5,746	7,607	86	125	366	0	366	15.7
211.00	Unincorporated El Dorado County (Remainder Area)	0	166	231	2	4	11	0	11	14.9
212.00	El Dorado Hills	0	1,883	2,551	25	35	103	0	103	18.3
213.00	Unincorporated El Dorado County (Remainder Area)	0	6,837	9,078	100	116	323	0	323	21.2
214.00	Unincorporated El Dorado County (Remainder Area)	0	689	925	10	8	19	0	19	35.6
215.00	El Dorado Hills	0	6,141	8,063	95	113	316	0	316	19.4
216.00	Unincorporated El Dorado County (Remainder Area)	0	401	522	5	5	12	0	12	33.2
217.00	Unincorporated El Dorado County (Remainder Area)	0	743	964	10	11	31	0	31	24.1
218.00	Unincorporated El Dorado County (Remainder Area)	0	1,730	2,253	25	28	78	0	78	22.1
219.00	Unincorporated El Dorado County (Remainder Area)	0	4,449	2,418	1,007	28	78	77	155	28.7
220.00	Unincorporated El Dorado County (Remainder Area)	0	583	769	8	9	25	0	25	23.3
221.00	El Dorado Hills	0	42,934	58,766	564	876	2,359	0	2,359	18.2
222.00	Cameron Park	0	2,669	1,437	253	26	71	26	97	27.6

VMT Summary by Jurisdiction - 2018 Baseline Scenario (Plus Project - Mitigation)

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223.00	Cameron Park	0	4,246	5,759	51	103	279	0	279	15.2
224.00	Unincorporated El Dorado County (Remainder Area)	0	5,530	6,570	341	95	258	29	287	19.3
225.00	Unincorporated El Dorado County (Remainder Area)	0	11,264	7,784	967	92	270	79	349	32.3
226.00	Cameron Park	0	10,040	8,907	754	131	384	76	460	21.8
227.00	Cameron Park	0	186	183	12	5	12	2	14	13.2
228.00	Cameron Park	0	23,997	32,301	496	705	1,703	20	1,723	13.9
229.00	El Dorado Hills	0	383	534	4	9	24	0	24	15.8
230.00	El Dorado Hills	0	560	778	5	12	35	0	35	15.9
231.00	Unincorporated El Dorado County (Remainder Area)	0	975	327	223	5	15	28	43	22.8
232.00	Unincorporated El Dorado County (Remainder Area)	0	2,141	2,876	28	33	92	0	92	23.3
233.00	Cameron Park	0	6,678	3,960	744	92	211	101	312	21.4
234.00	Cameron Park	0	47,580	42,965	4,348	1,004	2,306	587	2,893	16.4
235.00	Cameron Park	0	34,070	45,852	455	861	2,214	0	2,214	15.4
236.00	Cameron Park	0	18,133	24,750	288	468	1,204	9	1,213	15.0
237.00	Cameron Park	0	2,821	3,651	41	75	172	0	172	16.4
238.00	Cameron Park	0	15,304	14,282	1,935	280	676	199	875	17.5
239.00	Cameron Park	0	1,973	1,673	131	32	87	16	103	19.2
240.00	Unincorporated El Dorado County (Remainder Area)	0	7,458	10,036	104	127	345	0	345	21.6
241.00	Cameron Park	0	7,142	9,520	103	164	445	2	447	16.0
242.00	Cameron Park	0	824	1,137	9	22	60	0	60	13.8
243.00	Cameron Park	0	2,444	3,014	117	52	141	13	154	15.9
244.00	Unincorporated El Dorado County (Remainder Area)	0	1,399	1,817	23	22	57	0	57	24.7
245.00	Unincorporated El Dorado County (Remainder Area)	0	849	1,077	11	10	29	0	29	29.3
246.00	Unincorporated El Dorado County (Remainder Area)	0	4,621	6,283	58	63	182	0	182	25.3
247.00	Unincorporated El Dorado County (Remainder Area)	0	14,658	16,732	349	296	646	0	646	22.7
248.00	Unincorporated El Dorado County (Remainder Area)	0	11,172	13,693	224	185	441	0	441	25.3
249.00	Unincorporated El Dorado County (Remainder Area)	0	1,958	2,148	39	27	59	0	59	33.2
250.00	Unincorporated El Dorado County (Remainder Area)	0	3,321	4,013	62	53	123	0	123	27.0
251.00	Unincorporated El Dorado County (Remainder Area)	0	4,408	5,278	88	88	224	0	224	19.7
252.00	Unincorporated El Dorado County (Remainder Area)	0	20,540	25,577	410	434	1,130	0	1,130	18.2
253.00	Unincorporated El Dorado County (Remainder Area)	0	8,967	11,277	162	147	403	0	403	22.3
254.00	Unincorporated El Dorado County (Remainder Area)	0	6,244	7,523	125	116	295	0	295	21.2
255.00	Cameron Park	0	16,051	0	4,606	0	0	426	426	37.7
256.00	Cameron Park	0	43,983	2,046	12,605	47	121	1,042	1,163	37.8
257.00	Shingle Springs	0	29,709	7,094	10,580	153	389	960	1,349	22.0
258.00	Unincorporated El Dorado County (Remainder Area)	0	1,536	1,824	50	21	58	2	60	25.8
259.00	Unincorporated El Dorado County (Remainder Area)	0	1,867	2,339	30	30	78	0	78	23.9
260.00	Shingle Springs	0	5,527	61	1,739	2	4	146	150	36.7
261.00	Shingle Springs	0	15,039	4,304	3,472	92	252	282	534	28.2
262.00	Shingle Springs	0	12,729	5,067	2,881	121	308	238	546	23.3
263.00	Shingle Springs	0	6,124	5,122	514	108	296	35	331	18.5
264.00	Shingle Springs	0	4,702	2,353	604	50	137	45	182	25.8
265.00	Unincorporated El Dorado County (Remainder Area)	0	2,442	3,033	43	45	117	0	117	20.8
266.00	Unincorporated El Dorado County (Remainder Area)	0	2,365	2,168	116	42	92	4	96	24.7
267.00	Unincorporated El Dorado County (Remainder Area)	0	5,516	6,938	125	129	336	0	336	16.4
268.00	Unincorporated El Dorado County (Remainder Area)	0	3,294	3,797	130	69	180	6	186	17.7
269.00	Unincorporated El Dorado County (Remainder Area)	0	9,325	10,916	227	204	516	1	517	18.0
270.00	Unincorporated El Dorado County (Remainder Area)	0	2,469	3,202	42	44	113	0	113	21.8
271.00	Unincorporated El Dorado County (Remainder Area)	0	8,175	10,179	197	150	379	5	384	21.3
272.00	Unincorporated El Dorado County (Remainder Area)	0	6,851	7,912	353	131	347	23	370	18.5
273.00	Unincorporated El Dorado County (Remainder Area)	0	8,019	10,347	253	134	391	12	403	19.9
274.00	Unincorporated El Dorado County (Remainder Area)	0	15,567	14,202	1,300	233	618	99	717	21.7
275.00	Unincorporated El Dorado County (Remainder Area)	0	15,613	18,559	449	321	828	13	841	18.6
276.00	Cameron Park	0	9,161	11,298	255	224	541	12	553	16.6
277.00	Cameron Park	0	6,359	8,231	101	161	416	0	416	15.3
278.00	Unincorporated El Dorado County (Remainder Area)	0	5,379	7,035	83	91	247	0	247	21.8
279.00	Unincorporated El Dorado County (Remainder Area)	0	2,747	3,619	42	45	122	0	122	22.5
280.00	Unincorporated El Dorado County (Remainder Area)	0	1,789	2,246	32	37	98	0	98	18.2
281.00	Unincorporated El Dorado County (Remainder Area)	0	3,820	3,609	526	59	156	36	192	19.9
282.00	Unincorporated El Dorado County (Remainder Area)	0	1,753	2,195	31	39	103	0	103	17.0
283.00	Shingle Springs	0	15,590	3,590	1,997	0	0	161	161	96.8
284.00	Shingle Springs	0	1,607	1,122	292	25	65	25	90	18.0
285.00	Unincorporated El Dorado County (Remainder Area)	0	4,985	1,431	860	12	26	66	92	53.9
286.00	Unincorporated El Dorado County (Remainder Area)	0	1,803	2,354	29	36	95	0	95	18.9
287.00	Unincorporated El Dorado County (Remainder Area)	0	1,728	2,209	28	34	88	0	88	19.7
288.00	Unincorporated El Dorado County (Remainder Area)	0	2,673	3,387	45	51	135	0	135	19.8
289.00	Unincorporated El Dorado County (Remainder Area)	0	361	517	4	8	23	0	23	15.5
290.00	Unincorporated El Dorado County (Remainder Area)	0	2,442	3,266	37	44	129	0	129	19.0
291.00	Unincorporated El Dorado County (Remainder Area)	0	9,933	12,936	182	188	463	0	463	21.4
292.00	Unincorporated El Dorado County (Remainder Area)	0	4,694	6,536	65	72	210	0	210	22.3
293.00	Unincorporated El Dorado County (Remainder Area)	0	1,229	1,281	31	34	77	0	77	15.9
294.00	Unincorporated El Dorado County (Remainder Area)	0	4,015	4,633	94	97	247	0	247	16.3
295.00	Unincorporated El Dorado County (Remainder Area)	0	145,648	5,087	26,219	110	284	1,491	1,775	82.1
296.00	El Dorado Diamond Springs	0	9,537	6,701	835	117	305	56	361	26.4

VMT Summary by Jurisdiction - 2018 Baseline Scenario (Plus Project - Mitigation)

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297.00	Unincorporated El Dorado County (Remainder Area)	0	2,435	3,152	56	70	182	0	182	13.4
298.00	Unincorporated El Dorado County (Remainder Area)	0	3,292	3,808	74	79	206	0	206	16.0
299.00	Unincorporated El Dorado County (Remainder Area)	0	5,070	6,051	105	106	268	0	268	18.9
300.00	Unincorporated El Dorado County (Remainder Area)	0	1,193	1,385	26	28	71	0	71	16.9
301.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	1	2	0	2	0.1
302.00	Unincorporated El Dorado County (Remainder Area)	0	3,975	2,473	498	57	130	33	163	24.4
303.00	El Dorado Diamond Springs	0	3,467	3,664	90	106	231	0	231	15.0
304.00	El Dorado Diamond Springs	0	6,314	380	2,350	12	27	224	251	25.1
305.00	El Dorado Diamond Springs	0	7,573	0	3,127	1	2	283	285	26.5
306.00	El Dorado Diamond Springs	0	1,625	373	622	10	22	55	77	21.2
307.00	El Dorado Diamond Springs	0	621	494	38	16	36	2	38	16.3
308.00	El Dorado Diamond Springs	0	272	271	15	11	25	1	26	10.5
309.00	El Dorado Diamond Springs	0	531	431	52	14	32	4	36	14.8
310.00	El Dorado Diamond Springs	0	4,134	788	1,282	26	59	122	181	22.9
311.00	El Dorado Diamond Springs	0	8,526	1,190	2,105	38	87	158	245	34.9
312.00	El Dorado Diamond Springs	0	867	883	48	31	70	3	73	11.9
313.00	El Dorado Diamond Springs	0	23,383	4,142	6,899	38	99	506	605	38.7
314.00	El Dorado Diamond Springs	0	2,972	3,064	153	81	206	8	214	13.9
315.00	Outside of County	0	0	0	0	0	0	0	0	-
316.00	El Dorado Diamond Springs	0	342	343	9	13	30	0	30	11.5
317.00	El Dorado Diamond Springs	0	206	208	5	8	18	0	18	11.3
318.00	Unincorporated El Dorado County (Remainder Area)	0	4,310	4,635	137	128	326	2	328	13.1
319.00	El Dorado Diamond Springs	0	1,216	1,205	91	38	99	6	105	11.6
320.00	Unincorporated El Dorado County (Remainder Area)	0	5,168	2,219	540	18	44	39	83	62.0
321.00	Unincorporated El Dorado County (Remainder Area)	0	5,254	6,640	102	104	256	0	256	20.5
322.00	Unincorporated El Dorado County (Remainder Area)	0	7,452	7,966	555	153	387	33	420	17.7
323.00	Unincorporated El Dorado County (Remainder Area)	0	2,834	3,433	85	51	129	4	133	21.3
324.00	Unincorporated El Dorado County (Remainder Area)	0	3,637	4,756	61	64	165	0	165	22.1
325.00	Unincorporated El Dorado County (Remainder Area)	0	703	869	14	16	39	0	39	17.8
326.00	Unincorporated El Dorado County (Remainder Area)	0	2,163	2,703	54	49	121	1	122	17.8
327.00	Placerville	0	1,700	1,984	39	40	101	0	101	16.9
328.00	Unincorporated El Dorado County (Remainder Area)	0	845	989	18	19	48	0	48	17.7
329.00	Placerville	0	4,844	5,384	124	139	317	0	317	15.3
330.00	Unincorporated El Dorado County (Remainder Area)	0	2,692	3,087	65	73	184	0	184	14.6
331.00	Unincorporated El Dorado County (Remainder Area)	0	5,811	7,071	117	110	274	0	274	21.2
332.00	Unincorporated El Dorado County (Remainder Area)	0	1,536	1,783	36	47	104	0	104	14.7
333.00	Unincorporated El Dorado County (Remainder Area)	0	4,526	5,636	86	91	226	0	226	20.1
334.00	Unincorporated El Dorado County (Remainder Area)	0	3,817	1,162	1,328	26	58	110	168	22.8
335.00	Unincorporated El Dorado County (Remainder Area)	0	3,018	3,260	125	77	165	5	170	17.8
336.00	Unincorporated El Dorado County (Remainder Area)	0	1,219	1,458	25	30	70	0	70	17.3
337.00	Unincorporated El Dorado County (Remainder Area)	0	9,250	7,605	878	121	302	62	364	25.4
338.00	Unincorporated El Dorado County (Remainder Area)	0	14,090	17,743	373	322	831	14	845	16.7
339.00	Unincorporated El Dorado County (Remainder Area)	0	8,571	12,355	119	188	410	0	410	20.9
340.00	Unincorporated El Dorado County (Remainder Area)	0	6,876	8,530	225	93	205	14	219	31.4
341.00	Unincorporated El Dorado County (Remainder Area)	0	1,489	1,917	87	31	71	8	79	18.9
342.00	Unincorporated El Dorado County (Remainder Area)	0	2,636	3,272	49	48	124	0	124	21.3
343.00	Unincorporated El Dorado County (Remainder Area)	0	3,515	4,120	63	53	116	0	116	30.4
344.00	Unincorporated El Dorado County (Remainder Area)	0	3,791	4,508	68	55	120	0	120	31.6
345.00	Unincorporated El Dorado County (Remainder Area)	0	1,807	1,955	34	29	63	0	63	28.5
346.00	Unincorporated El Dorado County (Remainder Area)	0	1,278	1,401	24	22	49	0	49	25.8
347.00	Unincorporated El Dorado County (Remainder Area)	0	2,942	3,701	49	42	108	0	108	27.2
348.00	Unincorporated El Dorado County (Remainder Area)	0	2,830	3,022	62	49	110	0	110	25.7
349.00	Unincorporated El Dorado County (Remainder Area)	0	6,281	7,978	253	83	191	18	209	30.0
350.00	Unincorporated El Dorado County (Remainder Area)	0	1,178	1,678	17	22	48	0	48	24.5
351.00	Unincorporated El Dorado County (Remainder Area)	0	1,311	1,887	16	23	50	0	50	26.1
352.00	Unincorporated El Dorado County (Remainder Area)	0	1,862	2,631	24	29	63	0	63	29.4
353.00	Unincorporated El Dorado County (Remainder Area)	0	9,057	13,316	100	167	365	1	366	24.8
354.00	Unincorporated El Dorado County (Remainder Area)	0	5,586	3,564	752	53	116	77	193	29.0
355.00	Placerville	1	14,308	6,475	2,960	241	550	244	794	18.0
356.00	Placerville	1	2,488	2,612	74	91	195	0	195	12.8
357.00	Unincorporated El Dorado County (Remainder Area)	0	4,886	3,779	370	89	209	21	230	21.3
358.00	Placerville	0	5,871	2,903	1,195	81	190	98	288	20.4
359.00	Unincorporated El Dorado County (Remainder Area)	0	4,279	5,047	94	105	254	0	254	16.8
360.00	Unincorporated El Dorado County (Remainder Area)	0	5,357	5,765	241	98	237	10	247	21.7
361.00	Placerville	1	17,714	10,112	4,177	458	938	392	1,330	13.3
362.00	Placerville	1	46,369	5,837	10,992	252	591	876	1,467	31.6
363.00	Unincorporated El Dorado County (Remainder Area)	0	326	338	9	13	31	0	31	10.5
364.00	Placerville	0	4,034	3,488	416	138	328	30	358	11.3
365.00	El Dorado Diamond Springs	0	10,881	8,563	1,047	322	722	71	793	13.7
366.00	El Dorado Diamond Springs	0	380	272	42	15	31	4	35	10.8
367.00	El Dorado Diamond Springs	0	4,054	0	1,955	0	0	197	197	20.6
368.00	El Dorado Diamond Springs	0	1,582	1,711	48	68	149	0	149	10.6
369.00	El Dorado Diamond Springs	0	5,662	5,693	283	228	507	13	520	10.9
370.00	El Dorado Diamond Springs	0	6,435	0	3,032	0	0	303	303	21.2

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371.00	El Dorado Diamond Springs	0	740	791	17	21	47	0	47	15.9
372.00	El Dorado Diamond Springs	0	16,858	7,756	2,404	195	433	211	644	26.2
373.00	El Dorado Diamond Springs	0	653	638	19	26	59	0	59	11.1
374.00	El Dorado Diamond Springs	0	414	326	29	13	28	2	30	13.6
375.00	El Dorado Diamond Springs	0	367	364	10	14	32	0	32	11.6
376.00	El Dorado Diamond Springs	0	970	925	56	34	77	3	80	12.2
377.00	El Dorado Diamond Springs	0	563	327	156	13	29	14	43	13.0
378.00	El Dorado Diamond Springs	0	665	645	19	27	59	0	59	11.3
379.00	El Dorado Diamond Springs	0	1,097	1,100	31	48	105	0	105	10.4
380.00	El Dorado Diamond Springs	0	255	243	7	12	26	0	26	9.7
381.00	El Dorado Diamond Springs	0	158	142	5	7	15	0	15	10.3
382.00	El Dorado Diamond Springs	0	261	236	8	11	24	0	24	10.8
383.00	Unincorporated El Dorado County (Remainder Area)	0	1,589	1,727	40	46	102	0	102	15.5
384.00	El Dorado Diamond Springs	0	3,645	3,934	95	120	267	0	267	13.7
385.00	El Dorado Diamond Springs	0	11,686	13,530	336	451	1,002	0	1,002	11.7
386.00	El Dorado Diamond Springs	0	2,650	2,895	67	90	200	0	200	13.3
387.00	El Dorado Diamond Springs	0	1,170	919	107	36	80	8	88	13.3
388.00	El Dorado Diamond Springs	0	6,362	0	3,062	0	0	303	303	21.0
389.00	El Dorado Diamond Springs	0	6,133	11	2,613	2	4	264	268	22.9
390.00	El Dorado Diamond Springs	0	4,303	3,857	359	182	379	23	402	10.7
391.00	El Dorado Diamond Springs	0	2,181	194	547	11	23	54	77	28.3
392.00	El Dorado Diamond Springs	0	670	594	23	28	58	0	58	11.5
393.00	El Dorado Diamond Springs	0	8,996	6,288	1,002	268	605	68	673	13.4
394.00	El Dorado Diamond Springs	0	185	199	5	8	22	0	22	8.5
395.00	Placerville	1	62,365	1,564	26,086	74	166	2,253	2,419	25.8
396.00	El Dorado Diamond Springs	0	28,226	0	5,829	0	0	439	439	64.3
397.00	El Dorado Diamond Springs	0	1,327	1,250	69	50	114	3	117	11.4
398.00	El Dorado Diamond Springs	0	413	319	38	14	32	3	35	11.9
399.00	El Dorado Diamond Springs	0	1,123	1,120	32	43	97	0	97	11.6
400.00	El Dorado Diamond Springs	0	313	259	11	16	33	0	33	9.4
401.00	Placerville	0	9,018	649	2,630	28	63	213	276	32.7
402.00	El Dorado Diamond Springs	0	3,533	1,428	1,076	51	133	106	239	14.8
403.00	El Dorado Diamond Springs	0	23,911	3,656	7,775	124	258	654	912	26.2
404.00	El Dorado Diamond Springs	0	1,342	404	458	19	42	49	91	14.8
405.00	El Dorado Diamond Springs	0	169	148	5	9	20	0	20	8.5
406.00	El Dorado Diamond Springs	0	19,021	547	3,778	24	53	286	339	56.2
407.00	El Dorado Diamond Springs	0	9,566	19	3,365	1	2	309	311	30.7
408.00	El Dorado Diamond Springs	0	4,172	22	1,740	1	2	182	184	22.7
409.00	Placerville	0	18,735	2,985	5,650	104	248	445	693	27.1
410.00	El Dorado Diamond Springs	0	24,454	14,487	3,609	426	1,031	277	1,308	18.7
411.00	Placerville	1	50,786	6,046	13,349	298	712	1,271	1,983	25.6
412.00	Unincorporated El Dorado County (Remainder Area)	0	2,958	3,163	79	86	206	0	206	14.4
413.00	Placerville	0	3,594	3,733	103	126	301	0	301	11.9
414.00	El Dorado Diamond Springs	0	2,618	128	1,180	7	15	120	135	19.5
415.00	Unincorporated El Dorado County (Remainder Area)	0	432	436	12	18	40	0	40	10.7
416.00	El Dorado Diamond Springs	0	147	143	4	9	19	0	19	7.8
417.00	Placerville	1	9,732	1,080	2,877	45	114	278	392	24.8
418.00	Placerville	1	3,194	0	675	0	0	64	64	49.9
419.00	Placerville	1	3,304	0	849	0	0	85	85	38.9
420.00	Placerville	1	1,757	940	501	42	100	52	152	11.5
421.00	Placerville	1	1,653	1,547	98	68	163	5	168	9.9
422.00	Placerville	1	53,010	6,267	24,804	278	652	1,907	2,559	20.7
423.00	Unincorporated El Dorado County (Remainder Area)	0	458	473	12	20	48	0	48	9.6
424.00	Placerville	0	10,238	4,771	2,524	171	391	228	619	16.6
425.00	Placerville	0	53,115	31,884	5,963	1,167	2,617	563	3,180	16.7
426.00	Placerville	0	854	974	19	33	82	0	82	10.4
427.00	Unincorporated El Dorado County (Remainder Area)	0	3,949	4,495	93	93	232	0	232	17.0
428.00	Unincorporated El Dorado County (Remainder Area)	0	640	729	15	22	55	0	55	11.7
429.00	Unincorporated El Dorado County (Remainder Area)	0	1,307	1,636	35	35	83	0	83	15.8
430.00	Unincorporated El Dorado County (Remainder Area)	0	2,521	2,446	179	58	137	10	147	17.2
431.00	Placerville	1	1,796	464	658	22	45	60	105	17.1
432.00	Unincorporated El Dorado County (Remainder Area)	0	15,261	10,363	2,711	309	729	229	958	15.9
433.00	Placerville	1	10,394	9,493	710	481	1,041	36	1,077	9.7
434.00	Placerville	1	671	576	23	33	71	0	71	9.5
435.00	Placerville	1	1,187	635	244	36	77	27	104	11.4
436.00	Unincorporated El Dorado County (Remainder Area)	0	965	1,136	20	25	62	0	62	15.5
437.00	Unincorporated El Dorado County (Remainder Area)	0	5,357	5,604	249	117	287	12	299	17.9
438.00	Unincorporated El Dorado County (Remainder Area)	0	5,575	5,218	234	124	278	11	289	19.3
439.00	Unincorporated El Dorado County (Remainder Area)	0	5,415	6,263	173	156	350	3	353	15.3
440.00	Unincorporated El Dorado County (Remainder Area)	0	1,393	1,091	178	28	63	15	78	17.9
441.00	Placerville	1	360	371	9	12	29	0	29	12.6
442.00	Placerville	1	13,098	10,522	1,043	313	768	69	837	15.7
443.00	Unincorporated El Dorado County (Remainder Area)	0	1,455	1,550	36	38	85	0	85	17.1
444.00	Unincorporated El Dorado County (Remainder Area)	0	198	216	5	8	19	0	19	10.4

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445.00	Placerville	0	1,038	887	151	23	56	11	67	15.4
446.00	Placerville	1	1,762	836	249	25	59	19	78	22.7
447.00	Unincorporated El Dorado County (Remainder Area)	0	3,235	3,926	67	76	189	0	189	17.1
448.00	Placerville	0	1,794	2,063	75	53	130	4	134	13.4
449.00	Unincorporated El Dorado County (Remainder Area)	0	540	568	14	14	30	0	30	18.0
450.00	Unincorporated El Dorado County (Remainder Area)	0	3,262	2,642	395	84	180	31	211	15.5
451.00	Unincorporated El Dorado County (Remainder Area)	0	978	1,022	26	27	58	0	58	16.9
452.00	Placerville	0	6,336	4,033	503	121	259	33	292	21.7
453.00	Placerville	1	2,902	3,030	121	145	310	1	311	9.3
454.00	Unincorporated El Dorado County (Remainder Area)	0	566	535	18	25	54	0	54	10.6
455.00	Unincorporated El Dorado County (Remainder Area)	0	2,705	3,025	67	73	172	0	172	15.7
456.00	Unincorporated El Dorado County (Remainder Area)	0	1,876	2,040	49	51	109	0	109	17.2
457.00	Unincorporated El Dorado County (Remainder Area)	0	2,807	3,037	130	62	137	5	142	19.8
458.00	Placerville	0	2,930	2,564	346	67	157	26	183	16.0
459.00	Placerville	0	308	348	7	11	26	0	26	11.9
460.00	Unincorporated El Dorado County (Remainder Area)	0	1,457	956	266	22	47	20	67	21.7
461.00	Unincorporated El Dorado County (Remainder Area)	0	1,569	219	622	6	14	59	73	21.5
462.00	Unincorporated El Dorado County (Remainder Area)	0	5,248	1,270	1,768	31	66	125	191	27.4
463.00	Unincorporated El Dorado County (Remainder Area)	0	4,457	7,239	40	85	194	0	194	23.0
464.00	Unincorporated El Dorado County (Remainder Area)	0	2,521	3,303	39	47	104	0	104	24.3
465.00	Unincorporated El Dorado County (Remainder Area)	0	3,952	5,691	116	58	134	16	150	26.4
466.00	Unincorporated El Dorado County (Remainder Area)	0	3,535	4,403	203	61	139	22	161	21.9
467.00	Unincorporated El Dorado County (Remainder Area)	0	2,488	3,847	24	39	89	0	89	27.9
468.00	Unincorporated El Dorado County (Remainder Area)	0	6,770	9,755	126	120	277	6	283	23.9
469.00	Unincorporated El Dorado County (Remainder Area)	0	4,083	5,664	137	59	131	15	146	28.0
470.00	Unincorporated El Dorado County (Remainder Area)	0	2,029	3,071	27	32	73	1	74	27.4
471.00	Unincorporated El Dorado County (Remainder Area)	0	1,477	2,038	54	23	53	6	59	25.2
472.00	Unincorporated El Dorado County (Remainder Area)	0	1,951	2,293	148	26	59	20	79	24.6
473.00	Unincorporated El Dorado County (Remainder Area)	0	601	573	30	10	23	2	25	24.0
474.00	Unincorporated El Dorado County (Remainder Area)	0	1,685	2,159	29	37	81	0	81	20.9
475.00	Unincorporated El Dorado County (Remainder Area)	0	1,794	2,371	28	38	83	0	83	21.6
476.00	Unincorporated El Dorado County (Remainder Area)	0	862	1,121	13	16	41	0	41	20.9
477.00	Unincorporated El Dorado County (Remainder Area)	0	2,034	2,550	125	30	69	15	84	24.2
478.00	Unincorporated El Dorado County (Remainder Area)	0	1,474	1,899	24	30	66	0	66	22.3
479.00	Unincorporated El Dorado County (Remainder Area)	0	4,061	3,123	445	51	118	37	155	26.3
480.00	Unincorporated El Dorado County (Remainder Area)	0	1,300	1,999	13	20	46	0	46	28.5
481.00	Unincorporated El Dorado County (Remainder Area)	0	1,338	2,030	15	20	44	0	44	30.4
482.00	Unincorporated El Dorado County (Remainder Area)	0	5,635	7,943	93	74	163	3	166	34.0
483.00	Unincorporated El Dorado County (Remainder Area)	0	4,409	5,178	175	115	249	9	258	17.1
484.00	Unincorporated El Dorado County (Remainder Area)	0	6,740	5,589	956	91	227	114	341	19.8
485.00	Unincorporated El Dorado County (Remainder Area)	0	1,059	1,522	11	15	37	0	37	28.3
486.00	Unincorporated El Dorado County (Remainder Area)	0	4,069	5,889	48	69	156	0	156	26.1
487.00	Unincorporated El Dorado County (Remainder Area)	0	11,797	11,206	745	221	519	36	555	21.3
488.00	Unincorporated El Dorado County (Remainder Area)	0	5,521	7,520	87	107	242	0	242	22.9
489.00	Unincorporated El Dorado County (Remainder Area)	0	6,848	6,980	667	133	300	58	358	19.1
490.00	Unincorporated El Dorado County (Remainder Area)	0	1,171	1,516	19	24	60	0	60	19.6
491.00	Unincorporated El Dorado County (Remainder Area)	0	7,370	9,038	179	160	399	3	402	18.3
492.00	Unincorporated El Dorado County (Remainder Area)	0	5,051	4,434	413	71	176	31	207	24.4
493.00	Unincorporated El Dorado County (Remainder Area)	0	5,112	4,538	373	72	178	26	204	25.0
494.00	Unincorporated El Dorado County (Remainder Area)	0	3,242	3,921	139	68	170	10	180	18.1
495.00	Unincorporated El Dorado County (Remainder Area)	0	651	843	11	16	40	0	40	16.3
496.00	Unincorporated El Dorado County (Remainder Area)	0	7,366	4,510	840	81	201	67	268	27.5
497.00	Unincorporated El Dorado County (Remainder Area)	0	4,307	5,667	102	88	224	3	227	18.9
498.00	Unincorporated El Dorado County (Remainder Area)	0	3,428	4,423	105	70	158	6	164	20.9
499.00	Unincorporated El Dorado County (Remainder Area)	0	1,333	1,769	22	30	75	0	75	17.8
500.00	Unincorporated El Dorado County (Remainder Area)	0	4,152	1,368	610	11	26	51	77	54.1
501.00	Unincorporated El Dorado County (Remainder Area)	0	2,807	1,003	777	22	49	83	132	21.3
502.00	Unincorporated El Dorado County (Remainder Area)	0	7,015	7,643	355	117	272	18	290	24.2
503.00	Unincorporated El Dorado County (Remainder Area)	0	4,182	0	1,020	1	2	76	78	53.5
504.00	Unincorporated El Dorado County (Remainder Area)	0	6,073	6,420	347	141	313	19	332	18.3
505.00	Unincorporated El Dorado County (Remainder Area)	0	74	86	1	3	7	0	7	11.1
506.00	Unincorporated El Dorado County (Remainder Area)	0	1,021	1,227	22	28	62	0	62	16.4
507.00	Unincorporated El Dorado County (Remainder Area)	0	2,739	2,348	396	50	116	37	153	17.9
508.00	Unincorporated El Dorado County (Remainder Area)	0	6,683	3,452	1,858	85	184	186	370	18.1
509.00	Unincorporated El Dorado County (Remainder Area)	0	390	421	22	12	27	2	29	13.6
510.00	Unincorporated El Dorado County (Remainder Area)	0	3,208	3,447	159	92	199	10	209	15.4
511.00	Unincorporated El Dorado County (Remainder Area)	0	2,731	1,854	363	45	105	33	138	19.8
512.00	Unincorporated El Dorado County (Remainder Area)	0	2,833	1,959	370	37	86	27	113	25.1
513.00	Unincorporated El Dorado County (Remainder Area)	0	7,414	10,704	85	142	354	0	354	20.9
514.00	Unincorporated El Dorado County (Remainder Area)	0	31,914	46,929	315	622	1,551	0	1,551	20.6
515.00	Unincorporated El Dorado County (Remainder Area)	0	3,592	4,751	106	69	176	8	184	19.5
516.00	Unincorporated El Dorado County (Remainder Area)	0	8,120	11,765	88	142	362	0	362	22.4
517.00	Unincorporated El Dorado County (Remainder Area)	0	18,900	21,008	1,127	388	857	101	958	19.7
518.00	Unincorporated El Dorado County (Remainder Area)	0	11,842	15,539	310	289	671	17	688	17.2

VMT Summary by Jurisdiction - 2018 Baseline Scenario (Plus Project - Mitigation)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
519.00	Unincorporated El Dorado County (Remainder Area)	0	5,842	7,726	193	142	330	12	342	17.1
520.00	Unincorporated El Dorado County (Remainder Area)	0	11,885	15,954	271	266	617	12	629	18.9
521.00	Unincorporated El Dorado County (Remainder Area)	0	10,769	12,908	588	290	641	60	701	15.4
522.00	Unincorporated El Dorado County (Remainder Area)	0	5,078	7,171	65	85	221	0	221	23.0
523.00	Unincorporated El Dorado County (Remainder Area)	0	16,375	10,162	1,936	240	588	206	794	20.6
524.00	Unincorporated El Dorado County (Remainder Area)	0	14,998	12,779	1,126	205	490	103	593	25.3
525.00	Unincorporated El Dorado County (Remainder Area)	0	4,887	7,157	45	85	199	0	199	24.5
526.00	Unincorporated El Dorado County (Remainder Area)	0	246	337	3	5	12	0	12	20.2
527.00	Unincorporated El Dorado County (Remainder Area)	0	7,703	9,382	366	162	380	38	418	18.4
528.00	Unincorporated El Dorado County (Remainder Area)	0	59,851	84,350	811	1,001	2,429	72	2,501	23.9
529.00	Unincorporated El Dorado County (Remainder Area)	0	916	1,146	13	15	36	0	36	25.3
530.00	Unincorporated El Dorado County (Remainder Area)	0	12,921	17,321	195	191	462	0	462	28.0
531.00	Unincorporated El Dorado County (Remainder Area)	0	2,534	3,402	36	34	82	0	82	30.8
532.00	Unincorporated El Dorado County (Remainder Area)	0	3,998	5,152	60	61	147	0	147	27.1
533.00	Unincorporated El Dorado County (Remainder Area)	0	9,342	8,581	656	105	271	34	305	30.6
534.00	Unincorporated El Dorado County (Remainder Area)	0	3,791	4,958	53	53	128	0	128	29.6
535.00	Unincorporated El Dorado County (Remainder Area)	0	5,927	7,785	76	91	221	0	221	26.8
536.00	Unincorporated El Dorado County (Remainder Area)	0	5,078	6,553	65	82	200	0	200	25.4
537.00	Unincorporated El Dorado County (Remainder Area)	0	10,383	14,112	108	165	402	0	402	25.9
538.00	Unincorporated El Dorado County (Remainder Area)	0	3,970	3,031	310	44	107	22	129	30.8
539.00	Unincorporated El Dorado County (Remainder Area)	0	13,165	1,376	2,118	6	15	166	181	72.9
540.00	Unincorporated El Dorado County (Remainder Area)	0	2,870	0	583	0	0	53	53	54.1
541.00	Unincorporated El Dorado County (Remainder Area)	0	1,048	1,112	62	18	42	6	48	21.7
542.00	Unincorporated El Dorado County (Remainder Area)	0	3,598	3,056	417	52	123	37	160	22.5
543.00	Unincorporated El Dorado County (Remainder Area)	0	10,567	2,415	1,788	49	114	107	221	47.7
544.00	Unincorporated El Dorado County (Remainder Area)	0	679	493	104	9	21	8	29	23.4
545.00	Unincorporated El Dorado County (Remainder Area)	0	1,523	2,044	16	23	54	0	54	28.3
546.00	Unincorporated El Dorado County (Remainder Area)	0	4,822	6,437	55	61	143	0	143	33.8
547.00	Unincorporated El Dorado County (Remainder Area)	0	4,038	520	490	10	23	46	69	58.2
548.00	Unincorporated El Dorado County (Remainder Area)	0	17,398	23,094	472	386	910	22	932	18.7
549.00	Unincorporated El Dorado County (Remainder Area)	0	2,156	2,699	39	42	99	0	99	21.8
550.00	Unincorporated El Dorado County (Remainder Area)	0	264	344	4	7	18	0	18	14.7
551.00	Unincorporated El Dorado County (Remainder Area)	0	5,424	2,503	787	41	105	54	159	34.0
552.00	Unincorporated El Dorado County (Remainder Area)	0	2,442	420	504	8	19	32	51	48.2
553.00	Unincorporated El Dorado County (Remainder Area)	0	1,561	2,035	26	32	75	0	75	20.9
554.00	Unincorporated El Dorado County (Remainder Area)	0	4,026	5,194	106	83	194	4	198	20.3
555.00	Unincorporated El Dorado County (Remainder Area)	0	1,645	2,217	24	34	80	0	80	20.5
556.00	Unincorporated El Dorado County (Remainder Area)	0	5,086	6,950	67	82	192	0	192	26.5
557.00	Unincorporated El Dorado County (Remainder Area)	0	1,692	2,085	31	35	82	1	83	20.4
558.00	Unincorporated El Dorado County (Remainder Area)	0	2,721	2,989	166	36	84	19	103	26.3
559.00	Unincorporated El Dorado County (Remainder Area)	0	1,372	1,817	18	25	59	0	59	23.4
560.00	Unincorporated El Dorado County (Remainder Area)	0	1,599	1,656	101	27	63	10	73	21.9
561.00	Unincorporated El Dorado County (Remainder Area)	0	1,175	1,563	18	22	52	0	52	22.6
562.00	Unincorporated El Dorado County (Remainder Area)	0	4,021	5,907	40	62	145	0	145	27.7
563.00	Unincorporated El Dorado County (Remainder Area)	0	2,204	3,346	17	32	71	0	71	31.2
564.00	Unincorporated El Dorado County (Remainder Area)	0	616	824	10	14	33	0	33	18.4
565.00	Unincorporated El Dorado County (Remainder Area)	0	2,613	3,630	39	56	129	0	129	20.2
566.00	Unincorporated El Dorado County (Remainder Area)	0	3,970	5,323	71	93	220	1	221	18.0
567.00	Unincorporated El Dorado County (Remainder Area)	0	664	800	26	18	42	2	44	15.2
568.00	Unincorporated El Dorado County (Remainder Area)	0	921	1,235	15	26	62	0	62	15.0
569.00	Unincorporated El Dorado County (Remainder Area)	0	3,691	2,797	301	61	144	31	175	21.0
570.00	Unincorporated El Dorado County (Remainder Area)	0	4,788	2,124	783	40	92	92	184	26.0
571.00	Unincorporated El Dorado County (Remainder Area)	0	1,360	1,815	22	33	76	0	76	17.9
572.00	Unincorporated El Dorado County (Remainder Area)	0	1,860	1,355	265	25	61	34	95	19.5
573.00	Unincorporated El Dorado County (Remainder Area)	0	6,527	7,860	123	89	197	2	199	32.9
574.00	Unincorporated El Dorado County (Remainder Area)	0	5,036	7,967	30	71	174	0	174	28.9
575.00	Unincorporated El Dorado County (Remainder Area)	0	2,775	4,106	16	29	71	0	71	39.0
576.00	Unincorporated El Dorado County (Remainder Area)	0	1,088	1,530	17	19	42	1	43	25.3
577.00	Unincorporated El Dorado County (Remainder Area)	0	746	1,106	7	13	29	0	29	26.0
578.00	Unincorporated El Dorado County (Remainder Area)	0	23,444	37,177	107	370	817	0	817	28.7
579.00	Unincorporated El Dorado County (Remainder Area)	0	3,792	5,270	102	38	96	12	108	35.0
580.00	Unincorporated El Dorado County (Remainder Area)	0	2,886	4,121	63	35	89	5	94	30.8
581.00	Unincorporated El Dorado County (Remainder Area)	0	4,279	5,096	295	43	95	32	127	33.8
582.00	Unincorporated El Dorado County (Remainder Area)	0	1,261	1,708	17	13	34	0	34	37.3
583.00	Unincorporated El Dorado County (Remainder Area)	0	27,670	43,165	215	352	774	10	784	35.3
584.00	Unincorporated El Dorado County (Remainder Area)	0	1,750	2,102	56	18	40	3	43	41.0
585.00	Unincorporated El Dorado County (Remainder Area)	0	9,566	14,344	79	124	273	0	273	35.1
586.00	Unincorporated El Dorado County (Remainder Area)	0	5,845	2,492	1,576	51	91	92	183	32.0
587.00	Unincorporated El Dorado County (Remainder Area)	0	2,276	3,404	17	39	99	0	99	22.9
588.00	Unincorporated El Dorado County (Remainder Area)	0	19,743	30,087	127	323	805	0	805	24.5
589.00	Unincorporated El Dorado County (Remainder Area)	0	395	628	2	3	12	0	12	32.9
590.00	Unincorporated El Dorado County (Remainder Area)	0	825	1,129	12	18	46	0	46	18.1
591.00	Unincorporated El Dorado County (Remainder Area)	0	86	121	1	3	8	0	8	11.3
592.00	Unincorporated El Dorado County (Remainder Area)	0	12,629	13,017	749	339	749	91	840	15.0

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593.00	Unincorporated El Dorado County (Remainder Area)	0	6,878	8,944	268	151	382	28	410	16.8
594.00	Unincorporated El Dorado County (Remainder Area)	0	16,896	24,603	184	312	790	5	795	21.2
595.00	Unincorporated El Dorado County (Remainder Area)	0	1,935	1,809	268	25	56	31	87	22.1
596.00	Unincorporated El Dorado County (Remainder Area)	0	2,829	2,760	223	34	85	25	110	25.8
597.00	Unincorporated El Dorado County (Remainder Area)	0	11,039	3,952	1,940	106	234	278	512	21.6
598.00	Unincorporated El Dorado County (Remainder Area)	0	1,722	533	262	14	31	35	66	26.1
599.00	Unincorporated El Dorado County (Remainder Area)	0	705	952	11	17	38	0	38	18.8
600.00	Unincorporated El Dorado County (Remainder Area)	0	11,226	10,918	1,283	205	453	130	583	19.3
601.00	Unincorporated El Dorado County (Remainder Area)	0	1,341	1,899	4	10	22	0	22	61.0
602.00	Unincorporated El Dorado County (Remainder Area)	0	434	135	54	3	5	2	7	59.2
603.00	Unincorporated El Dorado County (Remainder Area)	0	906	722	85	11	20	2	22	42.0
604.00	Unincorporated El Dorado County (Remainder Area)	0	1,420	1,773	110	17	33	3	36	39.3
605.00	Unincorporated El Dorado County (Remainder Area)	0	1,670	1,771	87	18	38	2	40	41.8
606.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
607.00	Unincorporated El Dorado County (Remainder Area)	0	3,538	4,852	12	19	49	0	49	71.6
608.00	Unincorporated El Dorado County (Remainder Area)	0	6	0	0	1	2	0	2	2.9
609.00	Unincorporated El Dorado County (Remainder Area)	0	3,023	3,163	118	34	72	4	76	39.9
610.00	El Dorado Hills	0	38,469	192	20,058	0	0	1,745	1,745	22.0
611.00	El Dorado Hills	0	315	0	10	153	0	1	1	315.0
612.00	El Dorado Hills	0	78,992	0	43,845	0	0	3,121	3,121	25.3
613.00	Unincorporated El Dorado County (Remainder Area)	0	70	66	1	2	5	0	5	13.6
614.00	El Dorado Hills	0	5,988	7,135	113	150	383	0	383	15.6
615.00	El Dorado Hills	0	12,164	9,122	1,018	150	402	75	477	25.5
616.00	El Dorado Hills	0	1,377	1,642	25	37	94	0	94	14.7
617.00	El Dorado Hills	0	20,612	12,754	1,225	187	547	118	665	31.0
618.00	El Dorado Hills	0	3,077	0	1,224	0	0	146	146	21.1
619.00	El Dorado Hills	0	3,385	0	1,240	0	0	151	151	22.4
620.00	El Dorado Hills	0	17,707	3,540	1,755	0	0	188	188	94.2
621.00	El Dorado Hills	0	14,234	18,769	221	327	957	0	957	14.9
622.00	El Dorado Hills	0	21,931	21,547	1,614	370	1,083	147	1,230	17.8
623.00	Unincorporated El Dorado County (Remainder Area)	0	389	0	175	0	0	16	16	24.3
624.00	El Dorado Hills	0	15,673	17,599	1,159	308	905	96	1,001	15.7
625.00	El Dorado Hills	0	853	0	411	0	0	40	40	21.3
626.00	Unincorporated El Dorado County (Remainder Area)	0	7,515	7,129	606	164	383	98	481	15.6
627.00	Unincorporated El Dorado County (Remainder Area)	0	50,655	0	10,202	0	0	897	897	56.5
628.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
629.00	Unincorporated El Dorado County (Remainder Area)	0	32,091	0	12,238	0	0	1,595	1,595	20.1
630.00	Unincorporated El Dorado County (Remainder Area)	0	130,380	181,281	1,284	3,236	9,537	0	9,537	13.7
631.00	Unincorporated El Dorado County (Remainder Area)	0	15,068	0	2,111	0	0	202	202	74.6
632.00	Unincorporated El Dorado County (Remainder Area)	0	1,449	1,743	24	37	94	0	94	15.5
633.00	Unincorporated El Dorado County (Remainder Area)	0	6,282	7,473	120	150	379	0	379	16.6
634.00	Unincorporated El Dorado County (Remainder Area)	0	6,605	7,889	120	150	379	0	379	17.4
635.00	Unincorporated El Dorado County (Remainder Area)	0	5,069	5,987	93	113	286	0	286	17.7
636.00	Unincorporated El Dorado County (Remainder Area)	0	4,491	6,168	80	120	322	0	322	14.0
637.00	Unincorporated El Dorado County (Remainder Area)	0	8,137	9,995	140	171	458	0	458	17.7
638.00	Unincorporated El Dorado County (Remainder Area)	0	1,043	1,270	16	23	62	0	62	16.9
639.00	Unincorporated El Dorado County (Remainder Area)	0	2,280	2,818	36	46	123	0	123	18.5
640.00	Unincorporated El Dorado County (Remainder Area)	0	7,739	9,648	126	176	472	0	472	16.4
641.00	Unincorporated El Dorado County (Remainder Area)	0	2,100	2,617	33	46	123	0	123	17.0
642.00	Unincorporated El Dorado County (Remainder Area)	0	28,386	33,409	1,267	637	1,708	93	1,801	15.8
643.00	Unincorporated El Dorado County (Remainder Area)	0	9,637	11,965	162	216	579	0	579	16.6
644.00	Unincorporated El Dorado County (Remainder Area)	0	2,925	3,681	47	76	194	0	194	15.1
645.00	Unincorporated El Dorado County (Remainder Area)	0	21,364	24,730	975	415	1,059	51	1,110	19.3
646.00	Unincorporated El Dorado County (Remainder Area)	0	8,881	11,052	157	192	490	0	490	18.1
647.00	Unincorporated El Dorado County (Remainder Area)	0	1,590	1,906	69	38	97	6	103	15.4
648.00	Unincorporated El Dorado County (Remainder Area)	0	1,821	2,183	46	38	97	2	99	18.4
649.00	Unincorporated El Dorado County (Remainder Area)	0	5,629	3,180	32	38	97	0	97	58.1
650.00	Outside of County	0	3,034,613	1,491,155	477,407	0	0	0	0	-
651.00	Outside of County	0	28,574	14,248	4,307	0	0	0	0	-
652.00	Outside of County	0	0	0	0	0	0	0	0	-
653.00	Outside of County	0	393,316	159,508	52,047	0	0	0	0	-
654.00	Outside of County	0	56,538	9,096	2,932	0	0	0	0	-
655.00	Outside of County	0	270,945	107,400	35,664	0	0	0	0	-
656.00	Outside of County	0	77,524	18,063	8,817	0	0	0	0	-
657.00	Outside of County	0	186,627	8,175	3,896	0	0	0	0	-
658.00	Outside of County	0	0	0	0	0	0	0	0	-
659.00	Outside of County	0	7,614	3,118	1,442	0	0	0	0	-
660.00	Outside of County	0	165,938	82,548	32,838	0	0	0	0	-
661.00	Outside of County	0	157,912	71,316	26,038	0	0	0	0	-
662.00	Outside of County	0	704,794	338,039	120,756	0	0	0	0	-
663.00	Outside of County	0	683,517	226,968	81,799	0	0	0	0	-
664.00	Outside of County	0	350,124	190,438	56,080	0	0	0	0	-
665.00	Outside of County	0	200,653	79,795	31,510	0	0	0	0	-
666.00	Outside of County	0	89,060	45,188	14,600	0	0	0	0	-

VMT Summary by Jurisdiction - 2018 Baseline Scenario (Plus Project - Mitigation)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
667.00	Outside of County	0	0	0	0	0	0	0	0	-
668.00	Outside of County	0	513,215	313,106	0	0	0	0	0	-
669.00	Outside of County	0	0	0	0	0	0	0	0	-
670.00	Outside of County	0	0	0	0	0	0	0	0	-
671.00	Outside of County	0	170,595	95,943	24,202	0	0	0	0	-
672.00	Outside of County	0	33,290	34,348	0	0	0	0	0	-
673.00	Outside of County	0	24,907	14,942	0	0	0	0	0	-
674.00	Outside of County	0	355,441	29,935	0	0	0	0	0	-

2040 Baseline Scenario (Plus Project - Mitigation)

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project - Mitigation)

	VMT Estimates			VMT Efficiency Metrics			Population Details				
Jurisdiction	Total OD VMT	Home-based PA VMT	Home-based Work PA VMT	Total VMT per Service Population	Home-based VMT per Capita	Home-based Work VMT per Employee	Total Households	Total Population	Total Employment	Total Service Population	Persons Per Household
City of Placerville	405,469	62,679	106,488	24.9	8.2	12.3	3,429	7,658	8,649	16,307	2.23
Unincorporated El Dorado County	5,162,740	3,250,886	683,280	20.7	17.0	11.7	76,328	191,450	58,210	249,661	2.51
629	26,366	0	10,348	16.53		6.5	0	0	1,595	1,595	
630	102,509	135,502	1,336	10.75	14.2		3,236	9,537	0	9,537	2.95
631	12,689	0	1,808	62.82		8.9	0	0	202	202	
				Threshold	14.5	10.2					

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project - Mitigation)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
1.00	Unincorporated El Dorado County (Remainder Area)	0	5,612	1,755	828	47	99	36	135	41.6
2.00	Unincorporated El Dorado County (Remainder Area)	0	23,183	24,306	882	592	1,338	77	1,415	16.4
3.00	Unincorporated El Dorado County (Remainder Area)	0	5,308	6,565	99	74	180	0	180	29.6
4.00	Unincorporated El Dorado County (Remainder Area)	0	1,064	1,361	17	16	35	0	35	30.6
5.00	Unincorporated El Dorado County (Remainder Area)	0	2,583	3,585	26	33	73	0	73	35.4
6.00	Unincorporated El Dorado County (Remainder Area)	0	13,806	15,897	510	366	847	14	861	16.0
7.00	Unincorporated El Dorado County (Remainder Area)	0	24,203	26,605	1,361	565	1,223	92	1,315	18.4
8.00	Unincorporated El Dorado County (Remainder Area)	0	11,337	573	1,987	15	38	129	167	68.0
9.00	Unincorporated El Dorado County (Remainder Area)	0	25,170	30,497	633	559	1,400	13	1,413	17.8
10.00	Outside of County	0	108,966	88,166	11,332	2,178	5,588	1,056	6,644	16.4
11.00	Outside of County	0	112,591	81,314	13,784	2,148	5,511	1,297	6,808	16.5
12.00	Outside of County	0	59,185	45,253	4,895	1,179	3,234	437	3,671	16.1
13.00	Outside of County	0	34,643	40,224	1,549	906	2,458	99	2,557	13.5
14.00	Outside of County	0	58,617	67,905	1,714	1,511	4,120	78	4,198	14.0
15.00	Outside of County	0	3,055	3,928	59	58	166	0	166	18.4
16.00	Outside of County	0	56,393	21,854	7,599	659	1,614	689	2,303	24.5
17.00	Outside of County	0	160,974	140,116	14,178	2,811	7,160	1,363	8,523	18.9
18.00	Outside of County	0	84,449	95,986	3,662	1,930	4,652	246	4,898	17.2
19.00	Outside of County	0	10,428	5,839	1,102	96	217	103	320	32.6
20.00	Outside of County	0	7,652	141	4,107	2	7	283	290	26.4
21.00	Outside of County	0	26,307	73	13,709	2	4	1,082	1,086	24.2
22.00	Outside of County	0	1,692	10	339	1	1	21	22	76.9
23.00	Outside of County	0	29,302	12,806	3,707	115	322	261	583	50.2
24.00	Outside of County	0	4,205	3,087	141	133	133	0	133	31.6
25.00	Outside of County	0	0	0	0	0	0	0	0	-
26.00	Outside of County	0	109,371	102,472	8,058	2,238	5,070	642	5,712	19.1
27.00	Outside of County	0	8,219	75	3,047	2	5	338	343	24.0
28.00	Outside of County	0	240,264	199,712	17,195	4,828	12,553	1,923	14,476	16.6
29.00	Outside of County	0	8,628	10,958	163	170	486	0	486	17.8
30.00	Outside of County	0	70,859	72,862	5,865	1,194	3,041	368	3,409	20.8
31.00	Outside of County	0	10,368	5,364	606	41	106	44	150	68.9
32.00	Outside of County	0	29,818	38,491	693	692	1,811	21	1,832	16.3
33.00	Outside of County	0	38,388	47,636	1,380	857	2,183	69	2,252	17.0
34.00	Outside of County	0	6,131	5,957	708	69	156	32	188	32.6
35.00	Outside of County	0	30,771	37,176	781	812	2,092	0	2,092	14.7
36.00	Outside of County	0	37,268	44,910	914	910	2,318	0	2,318	16.1
37.00	Outside of County	0	58,471	2,551	22,136	57	142	1,643	1,785	32.8
38.00	Outside of County	0	6,736	3,916	641	57	142	45	187	36.1
39.00	Outside of County	0	16,999	14,562	2,136	514	1,180	181	1,361	12.5
40.00	Outside of County	0	76,004	22,155	16,364	851	1,972	1,905	3,877	19.6
41.00	Outside of County	0	35,519	24,493	7,662	592	1,368	567	1,935	18.4
42.00	Outside of County	0	176,337	97,612	24,966	2,081	5,108	1,911	7,019	25.1
43.00	Outside of County	0	34,554	40,202	984	849	2,170	46	2,216	15.6
44.00	Outside of County	0	110,743	80,922	8,963	1,827	4,654	791	5,445	20.3
45.00	Outside of County	0	72,729	23,156	12,203	846	1,936	1,262	3,198	22.7
46.00	Outside of County	0	5,974	6,481	152	164	375	0	375	15.9
47.00	Outside of County	0	202,408	9,397	81,276	284	681	5,991	6,672	30.3
48.00	Outside of County	0	48,271	42,633	3,785	1,211	3,071	266	3,337	14.5
49.00	Outside of County	0	110,336	583	50,364	18	45	4,248	4,293	25.7
50.00	Outside of County	0	73,277	35,887	22,099	981	2,487	1,736	4,223	17.4
51.00	Outside of County	0	98,287	51,541	15,836	1,710	4,116	1,373	5,489	17.9
52.00	Outside of County	0	30,836	15,229	3,205	279	629	279	908	34.0
53.00	Outside of County	0	79,285	47,960	10,981	1,399	3,606	983	4,589	17.3
54.00	Outside of County	0	60,029	22,284	22,470	494	1,220	1,748	2,968	20.2
55.00	Outside of County	0	77,174	30,074	13,987	639	1,471	1,127	2,598	29.7
56.00	Outside of County	0	35,937	39,899	1,303	872	2,337	56	2,393	15.0
57.00	Outside of County	0	107,579	23,988	46,672	660	1,466	4,152	5,618	19.1
58.00	Outside of County	0	36,058	25,877	4,457	613	1,587	352	1,939	18.6
59.00	Outside of County	0	45,184	88	27,073	2	5	2,191	2,196	20.6
60.00	Outside of County	0	68,091	8,187	31,094	240	512	2,711	3,223	21.1
61.00	Outside of County	0	140,319	86,057	22,631	2,381	5,595	1,810	7,405	18.9
62.00	Outside of County	0	51,830	1,901	24,050	33	110	2,000	2,110	24.6
63.00	Outside of County	0	66,267	5,234	27,361	143	350	2,462	2,812	23.6
64.00	Outside of County	0	129,113	72,651	20,886	2,031	5,053	1,733	6,786	19.0
65.00	Outside of County	0	5,574	6,242	127	127	328	0	328	17.0
66.00	Outside of County	0	37,732	27,929	4,230	887	2,117	331	2,448	15.4
67.00	Outside of County	0	117,693	21,730	39,035	633	1,374	3,381	4,755	24.8
68.00	Outside of County	0	38,741	12,355	10,945	453	946	1,002	1,948	19.9
69.00	Outside of County	0	241,118	68,728	97,607	1,950	5,172	7,364	12,536	19.2
70.00	Outside of County	0	161,553	1,067	97,891	15	38	7,503	7,541	21.4
71.00	Outside of County	0	217,128	130,385	32,346	2,596	6,730	2,417	9,147	23.7
72.00	Outside of County	0	270,902	772	155,533	0	0	10,084	10,084	26.9
73.00	Outside of County	0	96,761	0	61,204	0	0	4,612	4,612	21.0
74.00	Outside of County	0	134,951	17,222	66,888	546	1,335	5,255	6,590	20.5

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project - Mitigation)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
75.00	Outside of County	0	84,145	61,470	17,191	1,946	4,535	1,072	5,607	15.0
76.00	Outside of County	0	27,777	16,823	3,858	497	1,333	313	1,646	16.9
77.00	Outside of County	0	81,051	41,500	19,630	1,068	2,684	1,384	4,068	19.9
78.00	Outside of County	0	70,965	0	20,473	1	2	1,777	1,779	39.9
79.00	Outside of County	0	75,962	57,786	9,301	1,345	3,258	620	3,878	19.6
80.00	Outside of County	0	33,735	0	16,550	0	0	1,306	1,306	25.8
81.00	Outside of County	0	179,378	0	100,966	0	0	7,809	7,809	23.0
82.00	Outside of County	0	52,510	0	26,232	0	0	2,171	2,171	24.2
83.00	Outside of County	0	51,528	34,649	6,804	590	1,536	460	1,996	25.8
84.00	Outside of County	0	51,801	41,823	4,135	1,305	3,049	306	3,355	15.4
85.00	Outside of County	0	54,907	45,546	4,698	1,261	3,154	354	3,508	15.7
86.00	Outside of County	0	85,066	60,626	8,314	1,996	4,538	681	5,219	16.3
87.00	Outside of County	0	63,566	50,347	7,588	1,845	3,996	613	4,609	13.8
88.00	Outside of County	0	71,296	42,267	8,301	1,184	2,955	696	3,651	19.5
89.00	Outside of County	0	18,760	0	6,076	0	0	455	455	41.2
90.00	Outside of County	0	57,184	2,000	28,311	92	157	2,453	2,610	21.9
91.00	Outside of County	0	99,518	13,474	36,802	389	997	3,846	4,843	20.5
92.00	Outside of County	0	50,980	47,684	2,497	1,234	2,964	133	3,097	16.5
93.00	Outside of County	0	93,413	65,123	18,752	1,374	3,459	1,484	4,943	18.9
94.00	Outside of County	0	1,126	102	461	2	4	41	45	25.0
95.00	Outside of County	0	120,193	0	63,814	0	0	4,542	4,542	26.5
96.00	Outside of County	0	161,454	53,541	54,546	1,026	2,520	3,884	6,404	25.2
97.00	Outside of County	0	57,226	50,986	4,515	1,030	2,624	349	2,973	19.3
98.00	Outside of County	0	84,472	13,311	27,478	375	984	2,705	3,689	22.9
99.00	Outside of County	0	71,373	27,797	23,277	806	1,976	2,391	4,367	16.3
100.00	Outside of County	0	21,420	26,790	444	470	1,178	0	1,178	18.2
101.00	Outside of County	0	54,706	41,482	8,877	869	2,253	822	3,075	17.8
102.00	Outside of County	0	22,210	5,158	6,213	92	237	467	704	31.6
103.00	Outside of County	0	96,033	106,127	4,033	2,474	5,823	281	6,104	15.7
104.00	Outside of County	0	60,304	9,144	13,055	184	451	868	1,319	45.7
105.00	Outside of County	0	40,663	51,964	889	1,011	2,513	10	2,523	16.1
106.00	Outside of County	0	6,845	0	3,195	0	0	283	283	24.2
107.00	Outside of County	0	297,910	40,469	95,251	1,362	3,008	7,445	10,453	28.5
108.00	Outside of County	0	27,155	17,023	5,728	370	988	479	1,467	18.5
109.00	Outside of County	0	16,685	0	7,405	0	0	563	563	29.6
110.00	Outside of County	0	62,365	8,680	28,847	209	495	2,207	2,702	23.1
111.00	Outside of County	0	82,280	7,459	15,403	223	512	1,049	1,561	52.7
112.00	Outside of County	0	133,854	30,591	27,104	763	2,056	2,119	4,175	32.1
113.00	Outside of County	0	53,898	118	23,869	0	0	2,386	2,386	22.6
114.00	Outside of County	0	36,092	29,591	6,453	809	2,141	572	2,713	13.3
115.00	Outside of County	0	153,433	86,475	20,925	1,900	4,875	1,584	6,459	23.8
116.00	Outside of County	0	2,993	0	1,487	0	0	116	116	25.8
117.00	Outside of County	0	51,921	17,375	15,440	327	920	1,448	2,368	21.9
118.00	Outside of County	0	76,850	81,114	3,266	2,338	6,182	191	6,373	12.1
119.00	Outside of County	0	133,976	7,181	62,582	216	540	6,222	6,762	19.8
120.00	Outside of County	0	177,447	0	43,500	0	0	4,669	4,669	38.0
121.00	Outside of County	0	137,563	48,644	19,609	1,513	3,882	1,917	5,799	23.7
122.00	Outside of County	0	56,533	15,059	10,537	533	1,248	1,125	2,373	23.8
123.00	Outside of County	0	28,718	7,046	5,127	200	547	536	1,083	26.5
124.00	Outside of County	0	52,925	48,173	2,806	1,044	2,229	168	2,397	22.1
125.00	Outside of County	0	28,004	10,023	5,601	414	817	583	1,400	20.0
126.00	Outside of County	0	16,283	4,852	2,928	156	342	274	616	26.4
127.00	Outside of County	0	38,745	33,792	2,403	870	1,855	169	2,024	19.1
128.00	Outside of County	0	65,890	47,170	6,842	1,262	2,600	538	3,138	21.0
129.00	Outside of County	0	41,384	43,671	1,842	1,045	2,302	117	2,419	17.1
130.00	Outside of County	0	21,102	9,186	2,689	342	786	298	1,084	19.5
131.00	Outside of County	0	47,485	14,748	11,387	494	1,013	1,272	2,285	20.8
132.00	Outside of County	0	28,005	23,259	2,784	556	1,258	235	1,493	18.8
133.00	Outside of County	0	119,406	58,564	14,612	2,077	5,182	1,628	6,810	17.5
134.00	Outside of County	0	61,429	29,991	18,249	1,074	2,483	1,578	4,061	15.1
135.00	Outside of County	0	50,369	0	27,775	0	0	2,740	2,740	18.4
136.00	Outside of County	0	25,805	27,636	1,377	661	1,688	93	1,781	14.5
137.00	Outside of County	0	112,503	102,827	7,059	2,426	6,986	595	7,581	14.8
138.00	El Dorado Diamond Springs	0	21,901	6,086	4,337	264	577	297	874	25.1
139.00	El Dorado Diamond Springs	0	10,556	1,339	1,710	67	144	156	300	35.1
140.00	El Dorado Diamond Springs	0	57,011	128	10,305	10	22	811	833	68.5
141.00	Unincorporated El Dorado County (Remainder Area)	0	1,498	1,679	28	21	49	0	49	30.5
142.00	Unincorporated El Dorado County (Remainder Area)	0	6,594	6,516	171	156	347	0	347	19.0
143.00	Unincorporated El Dorado County (Remainder Area)	0	4,210	3,320	256	108	240	12	252	16.7
144.00	Unincorporated El Dorado County (Remainder Area)	0	4,026	3,566	342	80	200	21	221	18.2
145.00	Unincorporated El Dorado County (Remainder Area)	0	742	648	25	30	70	0	70	10.6
146.00	El Dorado Diamond Springs	0	6,259	2,340	1,110	114	261	98	359	17.4
147.00	El Dorado Diamond Springs	0	3,730	3,550	132	165	378	0	378	9.9
148.00	Outside of County	0	155,370	185,548	5,434	2,264	5,302	120	5,422	28.7

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project - Mitigation)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
149.00	Shingle Springs	0	16,328	1,782	3,469	53	149	287	436	37.5
150.00	Unincorporated El Dorado County (Remainder Area)	0	6,061	6,905	131	107	254	0	254	23.9
151.00	Unincorporated El Dorado County (Remainder Area)	0	1,339	1,778	19	23	67	0	67	20.1
152.00	Shingle Springs	0	33,553	6,246	5,137	201	488	370	858	39.1
153.00	Unincorporated El Dorado County (Remainder Area)	0	8,555	8,190	247	290	623	0	623	13.7
154.00	Unincorporated El Dorado County (Remainder Area)	0	6,904	7,305	181	254	597	0	597	11.6
155.00	Shingle Springs	0	5,225	5,721	132	154	406	0	406	12.9
156.00	Unincorporated El Dorado County (Remainder Area)	0	2,063	2,336	58	27	68	1	69	29.9
157.00	El Dorado Hills	0	8,725	11,060	166	273	790	0	790	11.0
158.00	Cameron Park	0	17,574	19,205	490	624	1,431	11	1,442	12.2
159.00	Cameron Park	0	15,443	14,955	1,411	446	1,082	114	1,196	12.9
160.00	Shingle Springs	0	18,369	16,931	1,141	504	1,223	70	1,293	14.2
161.00	El Dorado Hills	0	11,119	14,148	197	290	754	0	754	14.8
162.00	El Dorado Hills	0	57,778	78,480	871	1,503	4,465	0	4,465	12.9
163.00	El Dorado Hills	0	36,461	7,639	4,908	165	490	438	928	39.3
164.00	El Dorado Hills	0	60,940	0	32,131	0	0	3,124	3,124	19.5
165.00	El Dorado Hills	0	17,530	20,859	421	551	1,369	0	1,369	12.8
166.00	Outside of County	0	28,889	30,744	1,009	766	1,965	50	2,015	14.3
167.00	El Dorado Hills	0	47,980	46,707	2,341	1,520	3,531	111	3,641	13.2
168.00	El Dorado Hills	0	27,084	29,982	1,073	1,133	2,632	35	2,667	10.2
169.00	El Dorado Hills	0	117,938	5,684	25,455	208	517	2,484	3,001	39.3
170.00	El Dorado Hills	0	46,664	733	23,481	26	65	2,562	2,627	17.8
171.00	El Dorado Hills	0	16,451	16,498	1,057	441	1,081	68	1,148	14.3
172.00	El Dorado Hills	0	9,385	0	1,680	0	0	158	158	59.4
173.00	El Dorado Hills	0	46,160	0	11,054	0	0	1,140	1,140	40.5
174.00	Unincorporated El Dorado County (Remainder Area)	0	3,877	1,498	1,085	15	38	54	92	42.2
175.00	Unincorporated El Dorado County (Remainder Area)	0	2,617	635	486	10	24	22	46	57.2
176.00	Unincorporated El Dorado County (Remainder Area)	0	3,241	3,674	69	58	137	0	137	23.6
177.00	Unincorporated El Dorado County (Remainder Area)	0	11,143	8,658	1,808	147	370	130	500	22.3
178.00	Unincorporated El Dorado County (Remainder Area)	0	4,926	5,674	138	87	223	3	226	21.8
179.00	Unincorporated El Dorado County (Remainder Area)	0	706	910	11	21	55	0	55	12.9
180.00	El Dorado Hills	0	17,321	21,808	322	450	1,155	0	1,155	15.0
181.00	El Dorado Hills	0	6,691	5,360	647	120	315	61	376	17.8
182.00	Cameron Park	0	39,260	48,889	718	1,244	3,262	0	3,262	12.0
183.00	Unincorporated El Dorado County (Remainder Area)	0	10,726	12,310	237	354	832	0	832	12.9
184.00	Cameron Park	0	36,853	16,204	4,078	417	1,093	425	1,518	24.3
185.00	Cameron Park	0	3,863	4,491	79	152	349	0	349	11.1
186.00	Cameron Park	0	47,238	4,757	8,036	170	390	896	1,286	36.7
187.00	Cameron Park	0	10,528	7,381	1,134	247	566	104	670	15.7
188.00	Cameron Park	0	6,543	5,811	564	213	489	49	538	12.2
189.00	Unincorporated El Dorado County (Remainder Area)	0	2,490	3,187	40	36	100	0	100	24.8
190.00	Unincorporated El Dorado County (Remainder Area)	0	10,480	13,398	184	255	712	0	712	14.7
191.00	El Dorado Hills	0	1,444	1,836	24	39	109	0	109	13.3
192.00	El Dorado Hills	0	871	1,097	14	25	69	0	69	12.6
193.00	El Dorado Hills	0	14,278	5,314	3,650	156	406	361	768	18.6
194.00	El Dorado Hills	0	15,117	19,649	267	439	1,297	0	1,297	11.7
195.00	El Dorado Hills	0	8,980	472	2,020	10	26	176	203	44.3
196.00	Outside of County	0	52,578	59,952	1,734	1,148	3,198	97	3,295	16.0
197.00	El Dorado Hills	0	3,201	3,939	56	85	225	0	225	14.2
198.00	El Dorado Hills	0	69,158	39,397	6,129	887	2,476	623	3,099	22.3
199.00	El Dorado Hills	0	11,359	2,901	1,632	62	173	143	316	35.9
200.00	El Dorado Hills	0	6,407	308	1,233	7	19	121	140	45.9
201.00	El Dorado Hills	0	20,685	6,843	2,778	150	443	269	712	29.0
202.00	El Dorado Hills	0	37,645	35,676	2,137	762	2,127	169	2,296	16.4
203.00	El Dorado Hills	0	51,976	66,343	1,144	1,300	3,762	43	3,805	13.7
204.00	El Dorado Hills	0	17,170	16,284	633	362	1,048	48	1,096	15.7
205.00	El Dorado Hills	0	503	0	243	0	0	30	30	16.8
206.00	El Dorado Hills	0	1,638	2,097	28	51	148	0	148	11.1
207.00	El Dorado Hills	0	13,018	16,698	221	304	880	0	880	14.8
208.00	Unincorporated El Dorado County (Remainder Area)	0	327	428	5	9	26	0	26	12.6
209.00	El Dorado Hills	0	11,579	4,483	1,420	88	254	118	372	31.1
210.00	El Dorado Hills	0	6,362	8,175	109	162	479	0	479	13.3
211.00	Unincorporated El Dorado County (Remainder Area)	0	136	179	2	4	11	0	11	12.0
212.00	El Dorado Hills	0	2,416	3,141	39	53	153	0	153	15.8
213.00	Unincorporated El Dorado County (Remainder Area)	0	9,269	11,942	154	193	534	0	534	17.4
214.00	Unincorporated El Dorado County (Remainder Area)	0	2,331	3,351	32	31	76	0	76	30.9
215.00	El Dorado Hills	0	6,831	8,673	122	148	413	0	413	16.5
216.00	Unincorporated El Dorado County (Remainder Area)	0	1,751	2,458	26	23	56	0	56	31.2
217.00	Unincorporated El Dorado County (Remainder Area)	0	592	767	9	11	31	0	31	19.3
218.00	Unincorporated El Dorado County (Remainder Area)	0	1,525	1,911	26	28	78	0	78	19.5
219.00	Unincorporated El Dorado County (Remainder Area)	0	3,940	5,009	68	69	191	0	191	20.6
220.00	Unincorporated El Dorado County (Remainder Area)	0	476	640	6	9	25	0	25	19.1
221.00	El Dorado Hills	0	37,265	48,772	565	999	2,596	0	2,596	14.4
222.00	Cameron Park	0	2,155	1,469	418	34	90	58	148	14.5

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project - Mitigation)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
223.00	Cameron Park	0	5,544	7,178	78	174	461	0	461	12.0
224.00	Unincorporated El Dorado County (Remainder Area)	0	8,636	7,475	498	144	382	37	419	20.6
225.00	Unincorporated El Dorado County (Remainder Area)	0	23,143	10,955	2,957	147	424	277	702	33.0
226.00	Cameron Park	0	27,460	27,130	1,230	550	1,591	118	1,709	16.1
227.00	Cameron Park	0	8,735	11,171	205	281	689	10	699	12.5
228.00	Cameron Park	0	20,663	25,433	503	724	1,775	25	1,800	11.5
229.00	El Dorado Hills	0	40,512	34,212	2,274	793	2,061	237	2,298	17.6
230.00	El Dorado Hills	0	22,142	27,350	321	557	1,655	0	1,655	13.4
231.00	Unincorporated El Dorado County (Remainder Area)	0	4,944	6,647	70	134	388	0	388	12.7
232.00	Unincorporated El Dorado County (Remainder Area)	0	4,608	5,975	73	87	241	0	241	19.1
233.00	Cameron Park	0	8,421	3,721	737	116	266	100	366	23.0
234.00	Cameron Park	0	55,317	34,164	4,991	1,085	2,488	670	3,158	17.5
235.00	Cameron Park	0	42,766	55,551	624	1,322	3,580	2	3,582	11.9
236.00	Cameron Park	0	14,808	19,526	257	473	1,281	9	1,290	11.5
237.00	Cameron Park	0	2,251	2,683	43	78	179	0	179	12.6
238.00	Cameron Park	0	39,236	15,428	5,204	415	1,018	527	1,545	25.4
239.00	Cameron Park	0	2,362	3,394	34	86	228	0	228	10.4
240.00	Unincorporated El Dorado County (Remainder Area)	0	6,674	8,483	108	137	363	0	363	18.4
241.00	Cameron Park	0	14,910	7,654	1,265	181	480	151	631	23.6
242.00	Cameron Park	0	705	917	9	24	64	0	64	11.1
243.00	Cameron Park	0	2,037	2,623	32	61	162	1	163	12.5
244.00	Unincorporated El Dorado County (Remainder Area)	0	3,032	3,768	57	51	128	0	128	23.7
245.00	Unincorporated El Dorado County (Remainder Area)	0	784	1,015	11	10	30	0	30	26.1
246.00	Unincorporated El Dorado County (Remainder Area)	0	4,031	5,353	56	63	189	0	189	21.3
247.00	Unincorporated El Dorado County (Remainder Area)	0	13,679	14,380	354	296	636	0	636	21.5
248.00	Unincorporated El Dorado County (Remainder Area)	0	13,415	10,571	940	182	431	39	470	28.5
249.00	Unincorporated El Dorado County (Remainder Area)	0	3,345	1,856	530	26	56	25	81	41.3
250.00	Unincorporated El Dorado County (Remainder Area)	0	2,901	3,334	59	53	124	0	124	23.4
251.00	Unincorporated El Dorado County (Remainder Area)	0	5,664	6,321	134	139	363	0	363	15.6
252.00	Unincorporated El Dorado County (Remainder Area)	0	25,004	29,228	571	666	1,756	0	1,756	14.2
253.00	Unincorporated El Dorado County (Remainder Area)	0	7,605	9,049	157	149	410	0	410	18.6
254.00	Unincorporated El Dorado County (Remainder Area)	0	5,318	6,008	121	119	311	0	311	17.1
255.00	Cameron Park	0	62,318	0	14,233	0	0	1,405	1,405	44.3
256.00	Cameron Park	0	42,965	2,076	10,071	72	175	872	1,047	41.0
257.00	Shingle Springs	0	61,191	15,756	14,225	511	1,335	1,312	2,647	23.1
258.00	Unincorporated El Dorado County (Remainder Area)	0	2,155	2,577	40	36	99	0	99	21.8
259.00	Unincorporated El Dorado County (Remainder Area)	0	2,643	3,164	52	50	132	0	132	20.1
260.00	Shingle Springs	0	26,487	143	5,560	5	15	441	456	58.1
261.00	Shingle Springs	0	26,641	3,653	4,767	121	333	388	721	37.0
262.00	Shingle Springs	0	39,866	5,596	6,413	203	530	514	1,044	38.2
263.00	Shingle Springs	0	9,945	3,880	1,462	121	333	119	452	22.0
264.00	Shingle Springs	0	7,794	3,142	1,037	97	267	82	349	22.3
265.00	Unincorporated El Dorado County (Remainder Area)	0	1,975	2,246	43	44	116	0	116	17.0
266.00	Unincorporated El Dorado County (Remainder Area)	0	6,136	1,665	669	41	88	33	121	50.6
267.00	Unincorporated El Dorado County (Remainder Area)	0	8,727	10,106	219	240	633	0	633	13.8
268.00	Unincorporated El Dorado County (Remainder Area)	0	3,031	3,121	171	72	190	10	200	15.2
269.00	Unincorporated El Dorado County (Remainder Area)	0	13,577	9,343	1,445	217	558	81	639	21.2
270.00	Unincorporated El Dorado County (Remainder Area)	0	6,231	2,666	683	54	135	39	174	35.8
271.00	Unincorporated El Dorado County (Remainder Area)	0	9,920	10,056	735	172	442	50	492	20.1
272.00	Unincorporated El Dorado County (Remainder Area)	0	9,766	6,585	798	145	407	55	462	21.2
273.00	Unincorporated El Dorado County (Remainder Area)	0	7,546	9,036	377	138	400	22	422	17.9
274.00	Unincorporated El Dorado County (Remainder Area)	0	21,571	19,151	1,549	411	1,153	122	1,275	16.9
275.00	Unincorporated El Dorado County (Remainder Area)	0	14,838	17,326	334	379	971	0	971	15.3
276.00	Cameron Park	0	27,943	19,170	2,026	535	1,312	179	1,491	18.7
277.00	Cameron Park	0	4,972	5,902	98	176	427	0	427	11.6
278.00	Unincorporated El Dorado County (Remainder Area)	0	5,800	6,090	216	100	265	10	275	21.1
279.00	Unincorporated El Dorado County (Remainder Area)	0	2,976	3,818	50	55	146	0	146	20.4
280.00	Unincorporated El Dorado County (Remainder Area)	0	1,444	1,702	31	37	103	0	103	14.0
281.00	Unincorporated El Dorado County (Remainder Area)	0	4,882	4,253	421	85	238	28	266	18.3
282.00	Unincorporated El Dorado County (Remainder Area)	0	1,391	1,636	30	39	109	0	109	12.7
283.00	Shingle Springs	0	15,133	3,010	2,184	0	0	197	197	76.8
284.00	Shingle Springs	0	4,223	1,027	645	36	87	53	140	30.1
285.00	Unincorporated El Dorado County (Remainder Area)	0	13,915	2,761	2,923	53	154	233	387	35.9
286.00	Unincorporated El Dorado County (Remainder Area)	0	1,678	2,100	30	36	101	0	101	16.6
287.00	Unincorporated El Dorado County (Remainder Area)	0	1,400	1,701	27	34	87	0	87	16.1
288.00	Unincorporated El Dorado County (Remainder Area)	0	2,189	2,717	40	50	140	0	140	15.6
289.00	Unincorporated El Dorado County (Remainder Area)	0	323	425	5	8	23	0	23	13.9
290.00	Unincorporated El Dorado County (Remainder Area)	0	2,063	2,644	35	44	128	0	128	16.2
291.00	Unincorporated El Dorado County (Remainder Area)	0	12,459	15,784	239	254	647	0	647	19.3
292.00	Unincorporated El Dorado County (Remainder Area)	0	4,353	5,824	64	72	209	0	209	20.8
293.00	Unincorporated El Dorado County (Remainder Area)	0	1,293	1,293	36	41	90	0	90	14.4
294.00	Unincorporated El Dorado County (Remainder Area)	0	4,473	4,697	122	129	321	0	321	14.0
295.00	Unincorporated El Dorado County (Remainder Area)	0	61,766	4,983	22,323	110	282	1,540	1,822	33.9
296.00	El Dorado Diamond Springs	0	51,564	6,680	9,645	188	496	729	1,225	42.1

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project - Mitigation)

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297.00	Unincorporated El Dorado County (Remainder Area)	0	2,269	2,690	61	79	208	0	208	10.9
298.00	Unincorporated El Dorado County (Remainder Area)	0	2,834	3,098	71	79	208	0	208	13.6
299.00	Unincorporated El Dorado County (Remainder Area)	0	5,004	5,737	112	114	293	0	293	17.1
300.00	Unincorporated El Dorado County (Remainder Area)	0	1,728	1,917	41	45	116	0	116	14.9
301.00	Unincorporated El Dorado County (Remainder Area)	0	624	550	41	20	44	3	47	13.4
302.00	Unincorporated El Dorado County (Remainder Area)	0	3,886	2,617	208	89	194	10	204	19.0
303.00	El Dorado Diamond Springs	0	4,184	2,702	443	106	228	28	255	16.4
304.00	El Dorado Diamond Springs	0	8,273	285	2,653	12	26	269	296	28.0
305.00	El Dorado Diamond Springs	0	10,697	0	4,975	1	2	536	539	19.9
306.00	El Dorado Diamond Springs	0	7,894	3,165	1,350	128	275	110	386	20.5
307.00	El Dorado Diamond Springs	0	2,952	2,816	92	112	257	0	257	11.5
308.00	El Dorado Diamond Springs	0	239	244	6	12	28	0	28	8.7
309.00	El Dorado Diamond Springs	0	809	719	26	34	74	0	74	10.9
310.00	El Dorado Diamond Springs	0	13,795	638	2,510	29	66	220	286	48.2
311.00	El Dorado Diamond Springs	0	3,546	1,727	439	75	164	33	197	18.0
312.00	El Dorado Diamond Springs	0	9,919	6,799	978	310	711	71	782	12.7
313.00	El Dorado Diamond Springs	0	23,617	3,459	7,048	71	178	534	712	33.2
314.00	El Dorado Diamond Springs	0	10,529	2,501	1,458	100	249	103	352	29.9
315.00	Outside of County	0	0	0	0	0	0	0	0	-
316.00	El Dorado Diamond Springs	0	674	641	22	31	68	0	68	10.0
317.00	El Dorado Diamond Springs	0	140	126	4	8	17	0	17	8.0
318.00	Unincorporated El Dorado County (Remainder Area)	0	8,112	4,734	736	182	452	41	493	16.4
319.00	El Dorado Diamond Springs	0	1,395	1,286	45	57	143	0	143	9.8
320.00	Unincorporated El Dorado County (Remainder Area)	0	4,926	1,604	816	19	48	61	109	45.0
321.00	Unincorporated El Dorado County (Remainder Area)	0	5,214	6,148	139	116	295	2	297	17.5
322.00	Unincorporated El Dorado County (Remainder Area)	0	10,694	10,581	575	242	623	26	649	16.5
323.00	Unincorporated El Dorado County (Remainder Area)	0	8,282	3,755	1,848	67	172	139	311	26.6
324.00	Unincorporated El Dorado County (Remainder Area)	0	7,048	3,627	702	73	183	39	222	31.8
325.00	Unincorporated El Dorado County (Remainder Area)	0	718	834	16	20	51	0	51	14.1
326.00	Unincorporated El Dorado County (Remainder Area)	0	2,085	2,464	49	57	145	0	145	14.4
327.00	Placerville	0	3,212	3,498	83	84	210	0	210	15.3
328.00	Unincorporated El Dorado County (Remainder Area)	0	697	792	16	19	48	0	48	14.7
329.00	Placerville	0	4,823	4,841	141	156	360	0	360	13.4
330.00	Unincorporated El Dorado County (Remainder Area)	0	3,484	3,693	95	109	273	0	273	12.8
331.00	Unincorporated El Dorado County (Remainder Area)	0	6,128	6,973	142	130	325	0	325	18.9
332.00	Unincorporated El Dorado County (Remainder Area)	0	1,433	1,519	39	47	105	0	105	13.6
333.00	Unincorporated El Dorado County (Remainder Area)	0	3,938	4,494	88	91	225	0	225	17.5
334.00	Unincorporated El Dorado County (Remainder Area)	0	1,644	996	259	26	58	18	76	21.6
335.00	Unincorporated El Dorado County (Remainder Area)	0	2,805	3,009	74	76	163	0	163	17.2
336.00	Unincorporated El Dorado County (Remainder Area)	0	1,045	1,114	26	30	66	0	66	15.8
337.00	Unincorporated El Dorado County (Remainder Area)	0	10,254	6,046	1,777	124	304	128	432	23.7
338.00	Unincorporated El Dorado County (Remainder Area)	0	13,841	15,672	402	350	900	11	911	15.2
339.00	Unincorporated El Dorado County (Remainder Area)	0	9,243	11,947	146	224	508	0	508	18.2
340.00	Unincorporated El Dorado County (Remainder Area)	0	8,023	5,228	514	95	202	30	232	34.5
341.00	Unincorporated El Dorado County (Remainder Area)	0	1,630	1,546	174	34	75	16	91	18.0
342.00	Unincorporated El Dorado County (Remainder Area)	0	2,382	2,737	50	48	123	0	123	19.3
343.00	Unincorporated El Dorado County (Remainder Area)	0	4,970	5,768	92	78	177	0	177	28.1
344.00	Unincorporated El Dorado County (Remainder Area)	0	5,870	6,946	107	92	208	0	208	28.2
345.00	Unincorporated El Dorado County (Remainder Area)	0	2,015	2,125	40	34	77	0	77	26.2
346.00	Unincorporated El Dorado County (Remainder Area)	0	1,268	1,246	28	23	51	0	51	24.8
347.00	Unincorporated El Dorado County (Remainder Area)	0	2,652	3,133	50	42	108	0	108	24.6
348.00	Unincorporated El Dorado County (Remainder Area)	0	2,514	2,477	59	48	107	0	107	23.5
349.00	Unincorporated El Dorado County (Remainder Area)	0	8,172	4,880	582	94	193	34	227	35.9
350.00	Unincorporated El Dorado County (Remainder Area)	0	986	1,139	18	20	45	0	45	21.8
351.00	Unincorporated El Dorado County (Remainder Area)	0	1,467	1,844	23	31	70	0	70	20.9
352.00	Unincorporated El Dorado County (Remainder Area)	0	2,096	2,683	31	38	86	0	86	24.3
353.00	Unincorporated El Dorado County (Remainder Area)	0	10,662	10,214	518	200	453	43	496	21.5
354.00	Unincorporated El Dorado County (Remainder Area)	0	7,106	4,742	460	68	154	43	197	36.1
355.00	Placerville	1	27,290	5,122	4,994	257	594	387	981	27.8
356.00	Placerville	1	2,713	2,544	92	109	235	0	235	11.6
357.00	Unincorporated El Dorado County (Remainder Area)	0	8,076	4,222	736	133	294	42	336	24.0
358.00	Placerville	0	10,343	3,348	1,646	128	283	123	406	25.5
359.00	Unincorporated El Dorado County (Remainder Area)	0	3,549	3,690	95	105	247	0	247	14.4
360.00	Unincorporated El Dorado County (Remainder Area)	0	4,194	4,555	99	97	228	0	228	18.4
361.00	Placerville	1	27,095	10,018	4,650	570	1,189	370	1,558	17.4
362.00	Placerville	1	46,985	3,841	8,043	194	457	616	1,073	43.8
363.00	Unincorporated El Dorado County (Remainder Area)	0	415	425	12	19	48	0	48	8.6
364.00	Placerville	0	4,538	3,702	418	173	439	28	466	9.7
365.00	El Dorado Diamond Springs	0	24,317	9,315	3,006	541	1,147	223	1,370	17.7
366.00	El Dorado Diamond Springs	0	10,630	1,557	1,648	108	232	146	378	28.1
367.00	El Dorado Diamond Springs	0	7,169	0	3,568	0	0	398	398	18.0
368.00	El Dorado Diamond Springs	0	4,916	1,333	827	68	157	81	238	20.7
369.00	El Dorado Diamond Springs	0	14,231	8,849	1,424	485	1,088	114	1,202	11.8
370.00	El Dorado Diamond Springs	0	6,944	82	2,929	0	0	317	317	21.9

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project - Mitigation)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
371.00	El Dorado Diamond Springs	0	2,150	2,073	61	69	155	0	155	13.9
372.00	El Dorado Diamond Springs	0	28,829	14,136	3,162	559	1,254	296	1,550	18.6
373.00	El Dorado Diamond Springs	0	558	494	18	27	62	0	62	9.0
374.00	El Dorado Diamond Springs	0	1,047	276	117	14	32	10	42	24.8
375.00	El Dorado Diamond Springs	0	362	329	11	15	34	0	34	10.5
376.00	El Dorado Diamond Springs	0	1,493	724	220	34	78	17	95	15.7
377.00	El Dorado Diamond Springs	0	727	319	172	14	32	16	48	15.1
378.00	El Dorado Diamond Springs	0	547	516	16	27	62	0	62	8.8
379.00	El Dorado Diamond Springs	0	942	872	29	48	111	0	111	8.5
380.00	El Dorado Diamond Springs	0	197	185	6	12	28	0	28	7.1
381.00	El Dorado Diamond Springs	0	115	111	3	7	16	0	16	7.1
382.00	El Dorado Diamond Springs	0	222	183	8	11	25	0	25	8.8
383.00	Unincorporated El Dorado County (Remainder Area)	0	2,361	2,390	65	80	179	0	179	13.2
384.00	El Dorado Diamond Springs	0	4,510	4,459	124	174	390	0	390	11.6
385.00	El Dorado Diamond Springs	0	14,286	13,857	544	600	1,346	14	1,360	10.5
386.00	El Dorado Diamond Springs	0	2,240	2,238	60	90	202	0	202	11.1
387.00	El Dorado Diamond Springs	0	3,294	743	474	36	81	44	124	26.5
388.00	El Dorado Diamond Springs	0	5,467	0	2,620	0	0	278	278	19.7
389.00	El Dorado Diamond Springs	0	5,913	18	2,160	2	5	240	245	24.2
390.00	El Dorado Diamond Springs	0	7,359	4,853	740	311	670	54	724	10.2
391.00	El Dorado Diamond Springs	0	6,057	143	975	11	24	92	116	52.3
392.00	El Dorado Diamond Springs	0	1,016	474	89	28	60	5	66	15.5
393.00	El Dorado Diamond Springs	0	25,715	4,749	3,816	281	645	288	932	27.6
394.00	El Dorado Diamond Springs	0	6,150	111	2,061	8	18	168	186	33.1
395.00	Placerville	1	80,256	1,454	29,854	98	206	2,613	2,819	28.5
396.00	El Dorado Diamond Springs	0	30,737	0	5,559	0	0	425	425	72.4
397.00	El Dorado Diamond Springs	0	1,455	903	121	50	109	7	116	12.5
398.00	El Dorado Diamond Springs	0	1,156	265	145	14	32	11	43	26.7
399.00	El Dorado Diamond Springs	0	961	832	33	43	99	0	99	9.7
400.00	El Dorado Diamond Springs	0	7,360	210	1,244	16	35	97	132	56.0
401.00	Placerville	0	26,983	940	4,603	57	121	337	458	58.9
402.00	El Dorado Diamond Springs	0	4,678	2,564	1,036	137	344	103	447	10.5
403.00	El Dorado Diamond Springs	0	31,700	2,627	12,756	124	267	906	1,174	27.0
404.00	El Dorado Diamond Springs	0	1,735	302	335	19	44	32	76	22.9
405.00	El Dorado Diamond Springs	0	1,676	147	252	9	21	21	41	40.4
406.00	El Dorado Diamond Springs	0	26,313	385	4,408	24	55	339	395	66.7
407.00	El Dorado Diamond Springs	0	16,295	553	3,245	39	84	285	369	44.2
408.00	El Dorado Diamond Springs	0	5,529	0	2,383	1	2	279	281	19.7
409.00	Placerville	0	38,066	3,509	8,086	162	410	610	1,019	37.3
410.00	El Dorado Diamond Springs	0	40,484	14,334	5,633	602	1,418	423	1,840	22.0
411.00	Placerville	1	55,666	5,256	11,515	335	793	982	1,775	31.4
412.00	Unincorporated El Dorado County (Remainder Area)	0	3,445	3,298	106	114	271	0	271	12.7
413.00	Placerville	0	4,921	4,573	171	199	472	1	473	10.4
414.00	El Dorado Diamond Springs	0	20,175	92	5,361	7	15	561	576	35.0
415.00	Unincorporated El Dorado County (Remainder Area)	0	437	319	42	18	38	4	42	10.4
416.00	El Dorado Diamond Springs	0	267	128	55	9	19	7	26	10.2
417.00	Placerville	1	23,011	908	4,840	55	124	424	548	42.0
418.00	Placerville	1	5,542	0	1,390	0	0	130	130	42.6
419.00	Placerville	1	6,945	0	1,220	0	0	112	112	62.1
420.00	Placerville	1	5,299	966	1,334	56	132	117	249	21.3
421.00	Placerville	1	2,558	1,458	410	81	191	28	219	11.7
422.00	Placerville	1	67,795	5,176	31,492	303	714	2,392	3,106	21.8
423.00	Unincorporated El Dorado County (Remainder Area)	0	449	389	26	21	49	1	50	9.0
424.00	Placerville	0	25,696	5,352	4,464	252	582	351	934	27.5
425.00	Placerville	0	67,859	28,961	8,168	1,390	3,090	730	3,820	17.8
426.00	Placerville	0	706	722	19	32	80	0	80	8.8
427.00	Unincorporated El Dorado County (Remainder Area)	0	3,815	4,026	101	102	255	0	255	15.0
428.00	Unincorporated El Dorado County (Remainder Area)	0	551	582	14	22	55	0	55	10.0
429.00	Unincorporated El Dorado County (Remainder Area)	0	1,195	1,391	36	35	87	0	87	13.8
430.00	Unincorporated El Dorado County (Remainder Area)	0	3,101	2,003	551	59	146	44	190	16.3
431.00	Placerville	1	13,684	509	2,268	28	59	167	226	60.5
432.00	Unincorporated El Dorado County (Remainder Area)	0	15,642	10,574	3,132	363	900	241	1,140	13.7
433.00	Placerville	1	16,960	9,971	2,290	678	1,398	175	1,572	10.8
434.00	Placerville	1	829	637	31	44	95	0	95	8.7
435.00	Placerville	1	1,293	668	234	47	100	27	127	10.2
436.00	Unincorporated El Dorado County (Remainder Area)	0	1,148	1,168	50	32	79	2	81	14.3
437.00	Unincorporated El Dorado County (Remainder Area)	0	5,361	5,896	133	147	371	0	371	14.5
438.00	Unincorporated El Dorado County (Remainder Area)	0	5,851	4,249	511	143	303	32	335	17.5
439.00	Unincorporated El Dorado County (Remainder Area)	0	9,648	4,644	1,539	169	359	90	449	21.5
440.00	Unincorporated El Dorado County (Remainder Area)	0	5,967	862	1,584	31	66	111	177	33.7
441.00	Placerville	1	399	391	11	15	35	0	35	11.4
442.00	Placerville	1	13,585	9,844	978	350	882	56	939	14.5
443.00	Unincorporated El Dorado County (Remainder Area)	0	1,948	1,876	57	59	125	0	125	15.6
444.00	Unincorporated El Dorado County (Remainder Area)	0	274	178	17	8	19	1	20	13.7

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project - Mitigation)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
445.00	Placerville	0	839	785	56	26	65	3	68	12.3
446.00	Placerville	1	4,261	760	702	28	65	53	119	35.9
447.00	Unincorporated El Dorado County (Remainder Area)	0	8,332	3,143	1,581	81	199	116	314	26.5
448.00	Placerville	0	1,804	2,025	52	64	161	0	161	11.2
449.00	Unincorporated El Dorado County (Remainder Area)	0	466	474	12	14	30	0	30	15.5
450.00	Unincorporated El Dorado County (Remainder Area)	0	2,339	2,193	76	84	180	0	180	13.0
451.00	Unincorporated El Dorado County (Remainder Area)	0	896	865	26	27	58	0	58	15.5
452.00	Placerville	0	6,923	3,663	929	150	321	66	387	17.9
453.00	Placerville	1	3,301	3,157	140	182	391	0	391	8.4
454.00	Unincorporated El Dorado County (Remainder Area)	0	543	475	19	28	59	0	59	9.2
455.00	Unincorporated El Dorado County (Remainder Area)	0	2,530	2,650	68	73	181	0	181	14.0
456.00	Unincorporated El Dorado County (Remainder Area)	0	1,777	1,765	51	51	109	0	109	16.2
457.00	Unincorporated El Dorado County (Remainder Area)	0	3,122	2,998	252	68	153	13	166	18.8
458.00	Placerville	0	11,436	1,914	1,841	71	157	130	287	39.9
459.00	Placerville	0	727	698	22	28	62	0	62	11.7
460.00	Unincorporated El Dorado County (Remainder Area)	0	826	790	23	22	47	0	47	17.5
461.00	Unincorporated El Dorado County (Remainder Area)	0	114	128	3	6	13	0	13	8.6
462.00	Unincorporated El Dorado County (Remainder Area)	0	2,615	1,234	406	31	67	24	91	28.9
463.00	Unincorporated El Dorado County (Remainder Area)	0	3,707	5,296	47	89	195	0	195	19.0
464.00	Unincorporated El Dorado County (Remainder Area)	0	2,781	3,394	48	55	129	0	129	21.6
465.00	Unincorporated El Dorado County (Remainder Area)	0	3,709	5,358	33	65	163	0	163	22.7
466.00	Unincorporated El Dorado County (Remainder Area)	0	3,066	3,378	114	65	143	7	150	20.5
467.00	Unincorporated El Dorado County (Remainder Area)	0	2,482	3,482	29	49	107	0	107	23.1
468.00	Unincorporated El Dorado County (Remainder Area)	0	5,798	6,875	97	128	263	0	263	22.0
469.00	Unincorporated El Dorado County (Remainder Area)	0	3,770	5,132	42	70	156	0	156	24.2
470.00	Unincorporated El Dorado County (Remainder Area)	0	1,659	2,136	23	33	72	0	72	22.9
471.00	Unincorporated El Dorado County (Remainder Area)	0	1,204	1,585	17	26	57	0	57	21.1
472.00	Unincorporated El Dorado County (Remainder Area)	0	1,202	1,620	17	26	57	0	57	21.1
473.00	Unincorporated El Dorado County (Remainder Area)	0	1,174	671	224	13	33	25	58	20.4
474.00	Unincorporated El Dorado County (Remainder Area)	0	1,753	2,021	35	42	95	0	95	18.4
475.00	Unincorporated El Dorado County (Remainder Area)	0	1,829	2,174	34	42	95	0	95	19.2
476.00	Unincorporated El Dorado County (Remainder Area)	0	4,030	895	529	16	41	34	75	53.7
477.00	Unincorporated El Dorado County (Remainder Area)	0	1,560	2,161	20	31	78	0	78	20.0
478.00	Unincorporated El Dorado County (Remainder Area)	0	1,221	1,425	24	30	66	0	66	18.4
479.00	Unincorporated El Dorado County (Remainder Area)	0	5,059	3,271	424	62	156	29	185	27.4
480.00	Unincorporated El Dorado County (Remainder Area)	0	1,688	2,429	28	31	68	1	69	24.4
481.00	Unincorporated El Dorado County (Remainder Area)	0	1,349	1,921	18	24	53	0	53	25.4
482.00	Unincorporated El Dorado County (Remainder Area)	0	6,428	8,459	88	102	226	0	226	28.5
483.00	Unincorporated El Dorado County (Remainder Area)	0	9,574	4,646	1,044	132	285	76	361	26.5
484.00	Unincorporated El Dorado County (Remainder Area)	0	8,645	4,785	1,183	104	267	118	384	22.5
485.00	Unincorporated El Dorado County (Remainder Area)	0	2,219	2,980	30	40	103	0	103	21.6
486.00	Unincorporated El Dorado County (Remainder Area)	0	5,266	7,018	76	110	249	0	249	21.2
487.00	Unincorporated El Dorado County (Remainder Area)	0	18,796	8,203	3,079	228	504	184	688	27.3
488.00	Unincorporated El Dorado County (Remainder Area)	0	5,710	7,226	105	125	283	0	283	20.2
489.00	Unincorporated El Dorado County (Remainder Area)	0	7,397	6,568	411	157	355	24	379	19.5
490.00	Unincorporated El Dorado County (Remainder Area)	0	1,513	1,794	31	35	86	0	86	17.6
491.00	Unincorporated El Dorado County (Remainder Area)	0	7,398	8,742	162	181	444	0	444	16.7
492.00	Unincorporated El Dorado County (Remainder Area)	0	8,849	3,420	1,050	76	188	72	259	34.1
493.00	Unincorporated El Dorado County (Remainder Area)	0	9,877	3,606	1,477	79	195	101	296	33.3
494.00	Unincorporated El Dorado County (Remainder Area)	0	6,358	2,977	765	71	174	55	229	27.8
495.00	Unincorporated El Dorado County (Remainder Area)	0	641	745	14	17	42	0	42	15.4
496.00	Unincorporated El Dorado County (Remainder Area)	0	7,217	4,182	716	94	232	52	284	25.4
497.00	Unincorporated El Dorado County (Remainder Area)	0	9,473	4,946	1,015	109	263	75	338	28.0
498.00	Unincorporated El Dorado County (Remainder Area)	0	3,581	4,006	177	78	176	13	189	18.9
499.00	Unincorporated El Dorado County (Remainder Area)	0	1,503	1,822	30	38	93	0	93	16.1
500.00	Unincorporated El Dorado County (Remainder Area)	0	5,341	1,114	1,179	11	24	97	121	44.0
501.00	Unincorporated El Dorado County (Remainder Area)	0	2,236	810	559	22	49	58	107	20.8
502.00	Unincorporated El Dorado County (Remainder Area)	0	7,239	8,866	141	147	349	0	349	20.7
503.00	Unincorporated El Dorado County (Remainder Area)	0	5,118	10	852	1	2	56	58	87.9
504.00	Unincorporated El Dorado County (Remainder Area)	0	13,736	5,027	1,647	140	313	103	416	33.0
505.00	Unincorporated El Dorado County (Remainder Area)	0	80	95	1	3	7	0	7	12.0
506.00	Unincorporated El Dorado County (Remainder Area)	0	995	1,013	35	28	64	1	65	15.4
507.00	Unincorporated El Dorado County (Remainder Area)	0	2,125	2,480	49	61	145	0	145	14.7
508.00	Unincorporated El Dorado County (Remainder Area)	0	4,879	2,842	1,175	85	184	114	298	16.4
509.00	Unincorporated El Dorado County (Remainder Area)	0	2,070	404	659	12	27	77	104	19.9
510.00	Unincorporated El Dorado County (Remainder Area)	0	3,525	2,908	226	92	200	15	215	16.4
511.00	Unincorporated El Dorado County (Remainder Area)	0	1,997	1,561	134	46	109	9	118	16.9
512.00	Unincorporated El Dorado County (Remainder Area)	0	1,907	2,159	44	45	107	0	107	17.8
513.00	Unincorporated El Dorado County (Remainder Area)	0	7,980	10,260	172	178	456	7	463	17.2
514.00	Unincorporated El Dorado County (Remainder Area)	0	31,289	42,769	378	714	1,830	0	1,830	17.1
515.00	Unincorporated El Dorado County (Remainder Area)	0	3,150	4,036	54	78	188	0	188	16.7
516.00	Unincorporated El Dorado County (Remainder Area)	0	7,371	9,936	103	162	391	0	391	18.9
517.00	Unincorporated El Dorado County (Remainder Area)	0	23,457	18,746	1,747	489	1,085	139	1,224	19.2
518.00	Unincorporated El Dorado County (Remainder Area)	0	13,111	12,220	810	325	745	53	799	16.4

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project - Mitigation)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
519.00	Unincorporated El Dorado County (Remainder Area)	0	7,735	6,137	754	162	371	60	432	17.9
520.00	Unincorporated El Dorado County (Remainder Area)	0	13,936	12,001	1,184	296	678	99	778	17.9
521.00	Unincorporated El Dorado County (Remainder Area)	0	15,944	9,145	1,685	309	686	167	853	18.7
522.00	Unincorporated El Dorado County (Remainder Area)	0	4,809	5,787	169	96	236	9	245	19.6
523.00	Unincorporated El Dorado County (Remainder Area)	0	24,759	9,938	3,164	302	698	272	970	25.5
524.00	Unincorporated El Dorado County (Remainder Area)	0	19,399	8,848	2,565	214	495	207	702	27.6
525.00	Unincorporated El Dorado County (Remainder Area)	0	4,561	5,756	60	97	233	0	233	19.6
526.00	Unincorporated El Dorado County (Remainder Area)	0	3,212	4,028	57	55	142	0	142	22.6
527.00	Unincorporated El Dorado County (Remainder Area)	0	8,795	6,882	850	186	447	71	517	17.0
528.00	Unincorporated El Dorado County (Remainder Area)	0	51,551	63,509	903	1,061	2,556	51	2,607	19.8
529.00	Unincorporated El Dorado County (Remainder Area)	0	1,259	1,216	126	19	46	8	54	23.2
530.00	Unincorporated El Dorado County (Remainder Area)	0	13,318	17,571	226	226	551	0	551	24.2
531.00	Unincorporated El Dorado County (Remainder Area)	0	3,813	4,998	62	59	144	0	144	26.5
532.00	Unincorporated El Dorado County (Remainder Area)	0	3,640	4,557	65	64	156	0	156	23.4
533.00	Unincorporated El Dorado County (Remainder Area)	0	11,693	9,326	998	151	367	53	420	27.9
534.00	Unincorporated El Dorado County (Remainder Area)	0	4,279	5,417	72	69	168	0	168	25.5
535.00	Unincorporated El Dorado County (Remainder Area)	0	5,361	6,710	85	95	245	0	245	21.9
536.00	Unincorporated El Dorado County (Remainder Area)	0	5,491	6,935	84	106	273	0	273	20.1
537.00	Unincorporated El Dorado County (Remainder Area)	0	10,933	14,292	140	208	536	0	536	20.4
538.00	Unincorporated El Dorado County (Remainder Area)	0	15,661	7,340	1,864	159	382	137	519	30.2
539.00	Unincorporated El Dorado County (Remainder Area)	0	13,693	1,971	1,932	11	27	142	169	81.0
540.00	Unincorporated El Dorado County (Remainder Area)	0	9,698	0	1,712	0	0	132	132	73.3
541.00	Unincorporated El Dorado County (Remainder Area)	0	2,583	835	304	18	43	24	67	38.4
542.00	Unincorporated El Dorado County (Remainder Area)	0	6,182	2,183	976	55	130	76	206	30.0
543.00	Unincorporated El Dorado County (Remainder Area)	0	32,544	1,669	6,413	50	118	368	486	66.9
544.00	Unincorporated El Dorado County (Remainder Area)	0	2,510	2,667	63	58	137	0	137	18.3
545.00	Unincorporated El Dorado County (Remainder Area)	0	1,419	1,748	21	27	64	0	64	22.2
546.00	Unincorporated El Dorado County (Remainder Area)	0	7,980	9,988	117	131	310	0	310	25.7
547.00	Unincorporated El Dorado County (Remainder Area)	0	4,949	529	768	13	31	64	95	52.2
548.00	Unincorporated El Dorado County (Remainder Area)	0	15,302	17,420	605	405	960	27	987	15.5
549.00	Unincorporated El Dorado County (Remainder Area)	0	2,385	2,747	64	54	128	1	129	18.5
550.00	Unincorporated El Dorado County (Remainder Area)	0	6,380	1,693	1,004	40	100	62	162	39.3
551.00	Unincorporated El Dorado County (Remainder Area)	0	9,019	1,807	1,370	46	115	87	202	44.6
552.00	Unincorporated El Dorado County (Remainder Area)	0	1,064	453	107	11	26	6	32	33.2
553.00	Unincorporated El Dorado County (Remainder Area)	0	1,473	1,727	33	35	83	0	83	17.8
554.00	Unincorporated El Dorado County (Remainder Area)	0	6,750	7,854	191	185	438	5	443	15.2
555.00	Unincorporated El Dorado County (Remainder Area)	0	1,553	1,744	31	39	92	0	92	16.9
556.00	Unincorporated El Dorado County (Remainder Area)	0	4,483	5,413	81	89	211	0	211	21.3
557.00	Unincorporated El Dorado County (Remainder Area)	0	1,811	1,541	217	34	81	20	101	18.0
558.00	Unincorporated El Dorado County (Remainder Area)	0	2,004	2,492	28	40	96	0	96	20.9
559.00	Unincorporated El Dorado County (Remainder Area)	0	1,256	1,452	22	28	67	0	67	18.7
560.00	Unincorporated El Dorado County (Remainder Area)	0	5,920	1,185	1,769	28	66	172	238	24.8
561.00	Unincorporated El Dorado County (Remainder Area)	0	895	1,012	19	23	54	0	54	16.5
562.00	Unincorporated El Dorado County (Remainder Area)	0	3,765	4,649	56	73	175	0	175	21.5
563.00	Unincorporated El Dorado County (Remainder Area)	0	2,089	2,683	24	40	90	0	90	23.2
564.00	Unincorporated El Dorado County (Remainder Area)	0	1,034	1,202	25	27	62	0	62	16.6
565.00	Unincorporated El Dorado County (Remainder Area)	0	2,166	2,301	53	69	143	0	143	15.2
566.00	Unincorporated El Dorado County (Remainder Area)	0	3,916	3,936	142	112	264	5	269	14.5
567.00	Unincorporated El Dorado County (Remainder Area)	0	3,092	684	588	29	60	50	110	28.1
568.00	Unincorporated El Dorado County (Remainder Area)	0	2,951	744	559	26	61	47	108	27.3
569.00	Unincorporated El Dorado County (Remainder Area)	0	7,051	1,966	1,096	72	169	96	265	26.6
570.00	Unincorporated El Dorado County (Remainder Area)	0	8,724	1,165	1,877	53	109	169	278	31.4
571.00	Unincorporated El Dorado County (Remainder Area)	0	1,095	1,116	28	38	79	0	79	13.9
572.00	Unincorporated El Dorado County (Remainder Area)	0	4,771	1,215	976	39	90	89	178	26.7
573.00	Unincorporated El Dorado County (Remainder Area)	0	7,932	9,664	127	126	284	0	284	27.9
574.00	Unincorporated El Dorado County (Remainder Area)	0	4,382	5,546	54	88	204	1	205	21.4
575.00	Unincorporated El Dorado County (Remainder Area)	0	2,792	4,008	22	37	86	0	86	32.6
576.00	Unincorporated El Dorado County (Remainder Area)	0	2,757	849	326	19	43	33	76	36.4
577.00	Unincorporated El Dorado County (Remainder Area)	0	524	627	8	14	32	0	32	16.6
578.00	Unincorporated El Dorado County (Remainder Area)	0	24,984	38,030	126	451	1,016	0	1,016	24.6
579.00	Unincorporated El Dorado County (Remainder Area)	0	2,770	3,988	21	41	96	0	96	28.8
580.00	Unincorporated El Dorado County (Remainder Area)	0	2,443	3,298	26	42	98	0	98	24.8
581.00	Unincorporated El Dorado County (Remainder Area)	0	4,768	6,995	39	66	146	0	146	32.6
582.00	Unincorporated El Dorado County (Remainder Area)	0	13,249	989	1,625	15	37	65	102	130.0
583.00	Unincorporated El Dorado County (Remainder Area)	0	30,828	46,307	294	446	987	15	1,002	30.8
584.00	Unincorporated El Dorado County (Remainder Area)	0	2,116	2,056	107	22	47	6	53	40.0
585.00	Unincorporated El Dorado County (Remainder Area)	0	9,906	14,032	95	148	327	0	327	30.2
586.00	Unincorporated El Dorado County (Remainder Area)	0	3,747	2,840	262	56	105	10	115	32.6
587.00	Unincorporated El Dorado County (Remainder Area)	0	1,941	2,724	23	48	116	0	116	16.8
588.00	Unincorporated El Dorado County (Remainder Area)	0	15,808	22,386	147	348	892	0	892	17.7
589.00	Unincorporated El Dorado County (Remainder Area)	0	238	287	6	8	16	0	16	14.9
590.00	Unincorporated El Dorado County (Remainder Area)	0	811	1,019	14	23	55	0	55	14.8
591.00	Unincorporated El Dorado County (Remainder Area)	0	67	85	1	3	7	0	7	9.3
592.00	Unincorporated El Dorado County (Remainder Area)	0	14,413	9,275	1,299	361	801	146	947	15.2

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project - Mitigation)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
593.00	Unincorporated El Dorado County (Remainder Area)	0	6,828	5,808	535	155	370	56	426	16.0
594.00	Unincorporated El Dorado County (Remainder Area)	0	11,216	14,870	165	316	754	0	754	14.9
595.00	Unincorporated El Dorado County (Remainder Area)	0	4,059	2,664	254	46	104	27	131	31.0
596.00	Unincorporated El Dorado County (Remainder Area)	0	5,260	3,027	499	59	151	48	199	26.4
597.00	Unincorporated El Dorado County (Remainder Area)	0	12,387	3,027	1,778	122	271	214	485	25.5
598.00	Unincorporated El Dorado County (Remainder Area)	0	8,845	381	1,461	15	33	166	200	44.3
599.00	Unincorporated El Dorado County (Remainder Area)	0	620	756	12	18	40	0	40	15.6
600.00	Unincorporated El Dorado County (Remainder Area)	0	11,413	8,076	1,057	217	481	94	575	19.8
601.00	Unincorporated El Dorado County (Remainder Area)	0	1,334	1,849	5	11	24	0	24	54.9
602.00	Unincorporated El Dorado County (Remainder Area)	0	1,872	115	237	3	6	9	15	128.0
603.00	Unincorporated El Dorado County (Remainder Area)	0	3,603	464	932	12	23	32	55	66.1
604.00	Unincorporated El Dorado County (Remainder Area)	0	3,291	628	454	17	31	13	44	75.1
605.00	Unincorporated El Dorado County (Remainder Area)	0	2,860	916	815	21	46	29	75	38.3
606.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
607.00	Unincorporated El Dorado County (Remainder Area)	0	3,218	4,489	12	19	47	0	47	68.8
608.00	Unincorporated El Dorado County (Remainder Area)	0	30	41	0	1	2	0	2	13.9
609.00	Unincorporated El Dorado County (Remainder Area)	0	9,840	1,516	1,545	37	80	61	141	69.6
610.00	El Dorado Hills	0	60,390	138	27,845	0	0	2,725	2,725	22.2
611.00	El Dorado Hills	0	59,385	35,273	8,734	1,023	2,614	672	3,286	18.1
612.00	El Dorado Hills	0	128,106	1,041	61,866	0	0	5,778	5,778	22.2
613.00	Unincorporated El Dorado County (Remainder Area)	0	119	104	18	4	10	3	13	9.3
614.00	El Dorado Hills	0	6,325	7,504	136	211	550	0	550	11.5
615.00	El Dorado Hills	0	10,568	8,850	720	211	550	60	609	17.3
616.00	El Dorado Hills	0	1,583	1,889	33	53	138	0	138	11.5
617.00	El Dorado Hills	0	13,922	9,777	896	187	553	89	642	21.7
618.00	El Dorado Hills	0	4,659	0	2,112	0	0	265	265	17.6
619.00	El Dorado Hills	0	3,472	0	564	0	0	60	60	57.9
620.00	El Dorado Hills	0	17,354	3,664	1,575	0	0	178	178	97.5
621.00	El Dorado Hills	0	12,617	16,438	217	326	963	0	963	13.1
622.00	El Dorado Hills	0	19,378	18,182	1,112	370	1,094	90	1,184	16.4
623.00	Unincorporated El Dorado County (Remainder Area)	0	0	0	0	0	0	0	0	-
624.00	El Dorado Hills	0	15,244	14,612	674	309	918	54	972	15.7
625.00	El Dorado Hills	0	181	0	104	0	0	12	12	15.1
626.00	Unincorporated El Dorado County (Remainder Area)	0	37,092	5,038	5,476	164	386	554	939	39.5
627.00	Unincorporated El Dorado County (Remainder Area)	0	56,876	0	10,526	0	0	966	966	58.9
628.00	Unincorporated El Dorado County (Remainder Area)	0	19,810	23,650	453	515	1,322	0	1,322	15.0
629.00	Unincorporated El Dorado County (Remainder Area)	0	26,366	0	10,348	0	0	1,595	1,595	16.5
630.00	Unincorporated El Dorado County (Remainder Area)	0	102,509	135,502	1,336	3,236	9,537	0	9,537	10.7
631.00	Unincorporated El Dorado County (Remainder Area)	0	12,689	0	1,808	0	0	202	202	62.8
632.00	Unincorporated El Dorado County (Remainder Area)	0	1,674	2,052	33	53	138	0	138	12.1
633.00	Unincorporated El Dorado County (Remainder Area)	0	7,080	8,534	149	211	550	0	550	12.9
634.00	Unincorporated El Dorado County (Remainder Area)	0	7,419	9,017	150	212	552	0	552	13.4
635.00	Unincorporated El Dorado County (Remainder Area)	0	3,634	4,410	72	106	276	0	276	13.2
636.00	Unincorporated El Dorado County (Remainder Area)	0	6,094	8,375	135	212	556	0	556	11.0
637.00	Unincorporated El Dorado County (Remainder Area)	0	9,531	11,690	187	265	695	0	695	13.7
638.00	Unincorporated El Dorado County (Remainder Area)	0	1,284	1,610	22	36	94	0	94	13.6
639.00	Unincorporated El Dorado County (Remainder Area)	0	2,752	3,366	52	72	189	0	189	14.6
640.00	Unincorporated El Dorado County (Remainder Area)	0	9,602	11,918	183	272	713	0	713	13.5
641.00	Unincorporated El Dorado County (Remainder Area)	0	2,779	3,435	52	72	189	0	189	14.7
642.00	Unincorporated El Dorado County (Remainder Area)	0	36,637	38,710	1,581	926	2,421	96	2,517	14.6
643.00	Unincorporated El Dorado County (Remainder Area)	0	9,343	11,606	180	257	672	0	672	13.9
644.00	Unincorporated El Dorado County (Remainder Area)	0	3,093	3,909	54	90	238	0	238	13.0
645.00	Unincorporated El Dorado County (Remainder Area)	0	21,304	25,124	918	495	1,311	56	1,367	15.6
646.00	Unincorporated El Dorado County (Remainder Area)	0	7,123	8,915	125	180	477	0	477	14.9
647.00	Unincorporated El Dorado County (Remainder Area)	0	1,506	1,889	26	45	119	0	119	12.6
648.00	Unincorporated El Dorado County (Remainder Area)	0	3,896	2,240	514	45	119	42	161	24.2
649.00	Unincorporated El Dorado County (Remainder Area)	0	4,700	2,839	29	45	119	0	119	39.4
650.00	Outside of County	0	2,934,396	1,489,346	497,203	0	0	0	0	-
651.00	Outside of County	0	29,961	17,035	4,127	0	0	0	0	-
652.00	Outside of County	0	0	0	0	0	0	0	0	-
653.00	Outside of County	0	419,218	187,805	51,796	0	0	0	0	-
654.00	Outside of County	0	41,882	9,373	2,423	0	0	0	0	-
655.00	Outside of County	0	353,527	119,850	34,187	0	0	0	0	-
656.00	Outside of County	0	56,543	18,592	7,131	0	0	0	0	-
657.00	Outside of County	0	196,611	9,063	3,607	0	0	0	0	-
658.00	Outside of County	0	0	0	0	0	0	0	0	-
659.00	Outside of County	0	5,755	3,001	939	0	0	0	0	-
660.00	Outside of County	0	182,256	101,473	33,871	0	0	0	0	-
661.00	Outside of County	0	148,997	78,765	24,563	0	0	0	0	-
662.00	Outside of County	0	712,805	372,888	122,237	0	0	0	0	-
663.00	Outside of County	0	735,562	260,882	81,863	0	0	0	0	-
664.00	Outside of County	0	452,721	246,992	66,723	0	0	0	0	-
665.00	Outside of County	0	221,736	97,234	36,190	0	0	0	0	-
666.00	Outside of County	0	102,513	56,541	17,359	0	0	0	0	-

VMT Summary by Jurisdiction - 2040 Baseline Scenario (Plus Project - Mitigation)

TAZ	Community Region	In the City of Placerville (1=Yes, 0=N	Total OD VMT	Home-based PA VMT	Home-Based Work PA VMT	Households	Population	Employement	Service Population	Total OD VMT per Service Population
667.00	Outside of County	0	0	0	0	0	0	0	0	-
668.00	Outside of County	0	535,910	362,238	0	0	0	0	0	-
669.00	Outside of County	0	0	0	0	0	0	0	0	-
670.00	Outside of County	0	0	0	0	0	0	0	0	-
671.00	Outside of County	0	203,912	110,331	30,824	0	0	0	0	-
672.00	Outside of County	0	38,782	38,874	0	0	0	0	0	-
673.00	Outside of County	0	33,744	16,693	0	0	0	0	0	-
674.00	Outside of County	0	405,480	27,483	0	0	0	0	0	-

Appendix L

Deer Creek WWTP Mitigation Monitoring Program

ENV095

DEER CREEK WASTEWATER TREATMENT PLANT EXPANSION PROJECT

Mitigation Monitoring Program

October 13, 1998

Prepared for:
El Dorado Irrigation District

Prepared by:
Environmental Science Associates

ESA Environmental Science Associates

DEER CREEK WASTEWATER TREATMENT PLANT EXPANSION PROJECT

Mitigation Monitoring Program

October 13, 1998

Prepared for:
El Dorado Irrigation District
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Prepared by:
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DEER CREEK WASTEWATER TREATMENT PLANT EXPANSION PROJECT EIR

MITIGATION MONITORING PROGRAM

INTRODUCTION

The California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq., as amended by Chapter 1232) requires all state and local agencies to establish monitoring or reporting programs for projects approved by a public agency whenever approval involves the adoption of either a "mitigated negative declaration" or specified environmental findings related to environmental impact reports.

The mitigation monitoring program contained herein is intended to satisfy the requirements of CEQA as they relate to the Final Environmental Impact Report (EIR) for the Deer Creek Wastewater Treatment Plant (WWTP) Expansion Project prepared by the El Dorado Irrigation District (EID). This MMP is intended to be used by EID staff and mitigation monitoring personnel to ensure compliance with mitigation measures during project implementation. Mitigation measures identified in this MMP were developed as part of the EIR process for the proposed project.

The Deer Creek Wastewater Treatment Plant Expansion Project EIR presents a detailed set of mitigation measures that will be implemented throughout the lifetime of the project. Mitigation is defined by CEQA as a measure which:

- Avoids the impact altogether by not taking a certain action or parts of an action.
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment.
- Reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project.
- Compensates for the impact by replacing or providing substitute resources or environments.

The intent of the MMP is to ensure the effective implementation and enforcement of adopted mitigation measures and permit conditions. The MMP will provide for monitoring of construction activities as

necessary, in-the-field identification and resolution of environmental concerns, monitoring of daily operations of the wastewater treatment plant, and proper reporting to EID staff.

COMPLIANCE CHECKLIST

Monitoring and documenting the implementation of mitigation measures will be coordinated by EID. **Table 1** of this report identifies the mitigation measure, the monitoring action for the mitigation measure, the responsible party for the monitoring action, and timing of the monitoring action. EID will be responsible for fully understanding and effectively implementing the mitigation measures contained within the MMP to ensure that identified significant impacts have been avoided or mitigated to a level of less than significant.

FIELD MONITORING OF CONSTRUCTION

During expansion of the wastewater treatment plant, EID's construction inspector will be responsible for field monitoring of mitigation measure compliance. The inspector will report to EID and will be thoroughly familiar with the plans and requirements set forth in the permit conditions and the MMP. In addition, the inspector will be familiar with construction contract requirements, construction schedules, standard construction practices, and mitigation techniques. In order to track the status of mitigation measure implementation, field monitoring activities will be documented on compliance monitoring report worksheets. The time commitment of the inspector will vary depending on the intensity and location of construction. Aided by **Table 1**, the inspector will be responsible for the following activities:

- On- site, day-to-day monitoring of construction activities.
- Reviewing construction plans and equipment staging/access plans to ensure conformance with adopted mitigation measures.
- Ensuring contractor knowledge of and compliance with all appropriate permit conditions and the MMP.
- Evaluating the adequacy of construction impact mitigation measures and proposing improvements to the contractors and EID staff.
- Having the authority to require correction of activities that violate project permit conditions or mitigation measures, or that represent unsafe or dangerous conditions. The inspector shall have the ability and authority to secure compliance with the conditions or standards through the EID General Manager, if necessary.
- Acting in the role of contact for adjacent property owners or any other affected persons who wish to register observations of violations of project permit conditions or mitigation measures, or unsafe or dangerous conditions. Upon receiving any complaints, the inspector shall immediately contact the construction contractor representative. The inspector shall be

responsible for verifying any such observations and for developing any necessary corrective actions in consultation with the construction representative and EID.

- Maintaining prompt and regular communication with EID, other appropriate County agencies, or pertinent resource agencies (i.e., California Department of Fish and Game [CDFG], U.S. Fish and Wildlife Service [USFWS], U.S. Army Corps of Engineers [COE]).

- Obtaining assistance as necessary from technical experts, such as archaeologists, botanists, wildlife biologists, and wetland scientists, in order to develop site- specific procedures for implementing the mitigation measures.

- Maintaining a log of all significant interactions, violations of permit conditions or mitigation measures, and necessary corrective measures.

In the event that resolution of disputes between the public and/or governmental agencies and the project contractors regarding adherence to permit conditions and mitigation measures is not resolved by the inspector, the dispute shall be referred to the EID General Manager for resolution.

MONITORING OF WWTP OPERATIONS

The primary responsibility for carrying out mitigation measures applying to operation of the plant will lie with EID. Appointed staff will be thoroughly familiar with operational procedures and the MMP requirements. Ultimate enforcing responsibilities for corresponding on-going, operational-type mitigation measures lie with, but are not limited to, the Central Valley Regional Water Quality Control Board (RWQCB), El Dorado County Department of Environmental Management, California Department of Fish and Game, and the El Dorado Air Pollution Control District. Aided by **Table 1**, EID's appointed monitor of mitigation measure implementation will be responsible for the following activities:

- Ensuring staff knowledge of and compliance with all appropriate permit conditions and the MMP.

- Should a copper bioavailability study indicate copper-related problems, ensuring sufficient monitoring of addition of measures to reduce copper levels in wastewater prior to discharge.

- As enforced by El Dorado County Department of Environmental Management, continually updating its hazardous materials inventory and Emergency Response Plan and ensuring that EID remains current in staff hazardous materials training.

- Maintaining EID's compliance with the State Health and Safety Code.

- Ensuring updated compliance with the appropriate aquatic life criteria of the pertinent contaminant control regulations as they are developed.

- Coordinating participation in local land use activities and informing area developers of their disclosure responsibilities in regards to odor impacts.

- Coordinating implementation of mitigation measures targeted at noise reduction.
- Ensuring compliance with regulatory agency standards in regards to odor control and development of an odor control plan.
- Maintaining prompt and regular communication with the appropriate County agencies, or pertinent resource agencies (i.e., California Department of Fish and Game, El Dorado Air Pollution Control District, and State Water Resources Control Board).
- Maintaining a log of all significant interactions, violations of permit conditions or mitigation measures, and necessary corrective measures.

TABLE 1
MITIGATION MONITORING PROGRAM

	Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Standards	Verification of Compliance (Initials & Date)
4.3	**HYDROLOGY AND WATER QUALITY**					
4.3.6a	El Dorado Irrigation District (EID) shall prepare a copper bioavailability study to determine the fraction of discharged copper in toxic form. Should the bioavailability study determine there is a significant adverse risk to representative sensitive aquatic species, then EID shall implement mitigation measures to reduce the level of risk to Deer Creek aquatic resources to a level of less than significant. Such mitigation measures could include: ▪ Chemical addition of additives which enhance the complexing of copper in the wastewater treatment train prior to discharge. ▪ Implement an Industrial Pre-Treatment Program targeting the sources of copper within the service area of the Deer Creek WWTP. The program will identify primary sources of copper and means of controlling copper prior to discharge into the sanitary sewer system through any number of best management practices and best available control technologies to be implemented by the individual sources through sanitary sewer discharge permits.	EID	Regional Water Quality Control Board (RWQCB)	As required by NPDES permit.	Acceptance of study by RWQCB.	
4.3.6b	EID shall implement necessary controls at the Deer Creek WWTP to meet the freshwater aquatic life criteria of the pertinent contaminant control regulations as future aquatic life criteria are developed and modified. Future design of the Deer Creek WWTP shall allow accommodation of necessary treatment facilities required to meet foreseeable future effluent discharge criteria.	EID	RWQCB	Ongoing	Compliance with NPDES permit	
4.4	**AIR QUALITY**					
4.4.2a	EID shall require its contractors to demonstrate to the El Dorado APCD their compliance with rule 223- Fugitive Dust of the El Dorado APCD Rules and Regulations Handbook. A fugitive dust prevention and control plan describing the proposed Best Management Practices (BMPs) to be implemented for the control of fugitive dusts throughout the construction phase shall	EID	El Dorado APCD	Prior to construction	Site inspection to verify that measures are being implemented	

TABLE 1
MITIGATION MONITORING PROGRAM (Continued)

	Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Standards	Verification of Compliance (Initials & Date)
	be prepared and reviewed by the APCD prior to initiation of dust creating construction activities, including site grading, excavation, and/or demolition.					
4.4.2b	EID shall require construction contract documents to state that all fuel combustion construction equipment (both stationary and mobile) be tuned for optimal performance during all construction activities. In addition and to the extent possible, EID and its contractors shall implement the following measures: ▪ Retard diesel engine injection timing by two to four degrees. ▪ Use electricity from power poles rather than by temporary gasoline or diesel generators. ▪ Use reformulated, low-emission diesel fuel. ▪ Use catalytic converters on gasoline-powered equipment. ▪ Do not leave inactive construction equipment idling for prolonged periods (i.e., more than two minutes). ▪ Schedule construction activities and material hauls that affect flow to off-peak hours. ▪ Configure construction parking to minimize traffic interference.	EID	EID	Prior to bid	Verification of contract wording	
4.4.2c	EID shall encourage the use of low- emission construction equipment and shall encourage the use of feasible construction employee transportation alternatives such as ridesharing.	EID	EID	Throughout construction	Verify compliance	
4.4.3	Since the impact was found to be less than significant, mitigation is not required. However, the following measures are suggested to reduce energy consumption and any associated emissions connected with the production of energy at off-site power generation facilities. ▪ To the extent reasonably feasible, the District and its contractors shall implement the following measures: ▪ Tree planting in excess of that already required. Retain existing trees to reduce building heating/cooling needs.	EID	EID	Prior to bid and throughout construction	Verify installation and compliance	

TABLE 1
MITIGATION MONITORING PROGRAM (Continued)

	Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Standards	Verification of Compliance (Initials & Date)
	▪ Improve the thermal integrity of buildings, and reduce the thermal load with automated time clocks or occupant sensors. ▪ Use energy-efficient, low-sodium parking lot and street lights. ▪ Install lamps that give the highest light output per watt of electricity consumed. ▪ Control mechanical systems or equipment with time clock or computer systems.					
4.4.4	Since the impact was found to be less than significant, mitigation is not required. However, the following measures are suggested to reduce energy consumption and any associated emissions connected with the production of energy at off-site power generation facilities. To the extent reasonably feasible, the District and its contractors shall implement the following measures: ▪ Tree planting in excess of that already required. Retain existing trees to reduce building heating/cooling needs. ▪ Improve the thermal integrity of buildings, and reduce the thermal load with automated time clocks or occupant sensors. ▪ Use energy-efficient, low-sodium parking lot and street lights. ▪ Install lamps that give the highest light output per watt of electricity consumed. ▪ Control mechanical systems or equipment with time clock or computer systems.	EID	EID	Prior to bid and throughout construction	Verify installation and compliance	
4.4.6a	EID shall design and build facilities that can be retrofitted in the future with odor control mechanisms. Odor control should target the chief odor sources: head works, primary treatment processes, and sludge dewatering facilities. Odor control mechanisms could include, but should not be limited to, the following measures:	EID	EID	During design and construction	Plan review and site inspection to verify that measures are being implemented	

TABLE 1
MITIGATION MONITORING PROGRAM (Continued)

	Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Standards	Verification of Compliance (Initials & Date)
	▪ Sealed and scrubbed headworks, ▪ Chemical treatment of influent prior to entrance at the headworks, and ▪ Enclosed sludge handling areas. Implementation of the odor control mechanisms shall occur, when deemed necessary, in response to odor generation problems or future potential odor complaints.					
4.4.6b	EID shall continue to operate the Deer Creek WWTP in a fashion prohibiting the stockpiling of dewatered sludge in uncontained outdoor open areas.	EID	EID	Ongoing	Site inspection to verify that measures are being implemented	
4.4.6c	EID shall implement an odor complaint monitoring program to gauge the need and timing of additional odor control measures at the treatment plant. Such a monitoring program shall consist of a standard complaint logging procedure, including date, time, and origin of complaint along with a description of the atmospheric conditions present during the time of the complaint. The complaint shall be followed up by an inspection of the treatment plant to determine the source of the nuisance odor and any actions taken to remedy the problem. The complaint log will be maintained on- site for at least five years.	EID	EID	On- going	Verification of implemented odor complaint monitoring program	
4.4.6d	EID shall comply with the direction of the appropriate regulatory agencies regarding odor control.	EID	EID	On- going	Verify compliance	
4.4.6e	EID shall actively participate in land use planning activities in the vicinity of the Deer Creek WWTP and publicly comment on future developments proposed in the vicinity of the treatment plant.	EID	EID	On- going	Verified participation in future land use planning activities	
4.4.6f	EID, as a condition of sewer hook- up and annexation, shall require the applicant of the planned Marble Valley subdivision to notify all prospective owners of the potential for significant odor impacts associated with WWTP operations during individual lot sale proceedings.	EID	EID	Prior to sewer hookup and annexation	Verification of written agreement with said applicant to disclosure of odor impacts	

TABLE 1
MITIGATION MONITORING PROGRAM (Continued)

	Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Standards	Verification of Compliance (Initials & Date)
4.5	**GEOLOGY, SOILS, AND SEISMICITY**					
4.5.2a	Prior to project construction, EID shall require that specific Best Management Practices (BMPs) for erosion control will be implemented throughout the construction phase for all grading and excavation activities until successful surface stabilization has been achieved. Typical BMPs include hydroseeding, goetextiles and mats, and straw bale or sand bag barriers.	EID	EID	Throughout construction	Site inspection to verify that measures are being implemented	
4.5.2b	Minimize elapsed time between excavation and reuse of excavated material on- site and provide adequate stockpile coverage or watering during the entire storage period.	EID	EID	Throughout construction	Site inspection to verify that measures are being implemented	
4.6	**BIOLOGICAL RESOURCES**					
4.6.1a	EID shall retain a qualified wildlife biologist to conduct a survey for nesting raptors (in March or April) at the project site prior to construction activity (i.e., grading). Active raptor nests located within 500 feet of construction activity shall be mapped.	EID	EID	Prior to construction	Verification of monitoring results	
4.6.1b	If active raptor nests are located on or within 500 feet of an active or scheduled construction site, then appropriate buffer zones shall be established in consultation with the CDFG, and construction activities shall be prohibited within this buffer zone until the end of the nesting season (April thorough July) or until the young have fledged. A qualified wildlife biologist shall monitor the nest to determine when the young have fledged and submit weekly reports to the CDFG throughout the nesting season.	EID	California Department of Fish and Game and EID	Prior to construction	Submission of weekly reports to CDFG	
4.6.1c	If necessary, identified nest trees may only be removed prior to the onset of the nesting season (March) or after young have fledged (late July).	EID	EID	Prior to construction	Verify compliance	
4.6.2a	The preferred mitigation for VELB is avoidance as described in the most recent mitigation guidelines for VELB (USFWS, 1996). Avoidance includes, among other requirements, fencing all elderberry shrubs at least 20 feet from the shrub dripline and protection of the area within 100 feet of the shrubs following construction. If all avoidance measures outlined in the mitigation guidelines are followed, no further mitigation is necessary.	EID	US Fish and Wildlife Service and EID	Prior to construction	Site inspection to verify that measures are being implemented/ Submission of VELB mitigation plan to USFWS	

TABLE 1
MITIGATION MONITORING PROGRAM (Continued)

	Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Standards	Verification of Compliance (Initials & Date)
	If the shrub cannot be avoided, a survey of the shrub to be removed should be conducted by a qualified biologist to determine if any VELB exit holes are present. EID should then enter into formal consultation with the USFWS and develop a VELB mitigation plan based on the 1996 guidelines.					
4.6.2b	To ensure protection of the avoided elderberry shrub, highly visible temporary fencing shall be placed at a distance which is at 20 feet from the diameter of the elderberry shrub. This exclusionary fencing shall remain in place until all construction work is complete. At no time during construction may vehicles, wastes, or construction materials be placed inside of the exclusionary fencing. This protective measure shall be included in the construction plan and specifications.	EID	EID	Prior to construction	Site inspection to verify that measures are being implemented	
4.6.3	EID shall retain a qualified wildlife biologist to conduct a survey to identify active yellow warbler and yellow- breasted chat nests within a 350- foot radius of the project site prior to construction activities. This survey may be conducted in conjunction with the raptor nest survey (Mitigation Measure 4.6.2a). If no active nests are found, construction may proceed. In the event that an active yellow warbler or yellow- breasted chat nest are observed on or within 350 feet of an active or scheduled construction site, then appropriate buffer zones shall be established in consultation with the CDFG, and construction activities shall be prohibited within this buffer zone until the end of the nesting season (March to early August) or until the young have fledged. A qualified wildlife biologist shall monitor the nest to determine when the young have fledged and submit weekly reports to the CDFG throughout the nesting season. If necessary, identified nest trees may only be removed prior to the onset of the nesting season (March) or after young have fledged (early August).	EID	California Department of Fish and Game and EID	Prior to construction	Verification of monitoring results	
4.6.7	EID shall include provisions in all construction contracts for the proposed project that prohibit construction employee parking in undesignated areas. In addition, EID shall erect exclusionary fencing between the existing access road and open meadow area located between the effluent channel and Deer Creek to discourage workers from parking in this area.	EID	EID	Throughout construction	Site inspection to verify that measures are being implemented	

TABLE 1
MITIGATION MONITORING PROGRAM (Continued)

	Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Standards	Verification of Compliance (Initials & Date)
4.7	**NOISE**					
4.7.3a	Future project level design of the Deer Creek WWTP to the maximum 10.8-mgd capacity shall incorporate the best available noise attenuating technologies and noise barriers such that a noise level measurement taken 150 feet beyond the Deer Creek WWTP fenceline would not exceed 58 dBA, L_{eq}, a noise level performance standard that can be reasonably assumed to ensure El Dorado County Noise Element nighttime noise standard compliance. Such technologies shall focus on the design of acoustical enclosures for stationary noise sources such as pumps, motors, and blowers; the use of inherently quieter treatment equipment, when available; and the use of soundwalls, if necessary.	EID	EID	On- going	Site inspection to verify that measures are being implemented	
4.7.3b	EID shall evaluate WWTP activities that generate noise and implement policies targeted at reducing noise during these activities. Such an evaluation shall include the review of current noise attenuating practices such as keeping equipment building doors closed at all times.	EID	EID	On- going	Site inspection to verify that measures are being implemented	
4.8	**HAZARDOUS MATERIALS / PUBLIC HEALTH**					
4.8.2a	EID shall continue to update its Deer Creek WWTP hazardous materials inventory and Emergency Response Plan throughout the phased expansion process, thus ensuring that the plan and inventory is accurate and relevant at all times. Updates shall be conducted pursuant to the guidelines provided by EID's administering agency: the El Dorado County Department of Environmental Management. The updated inventory and emergency plans shall be written to comply with the requirements of Section 6.95 of the State Health and Safety Code.	EID	El Dorado County Department of Environmental Management	On- going	Updated Deer Creek WWTP hazardous material inventory and Emergency Response Plan	
4.8.2b	EID shall consult with the El Dorado County Department of Environmental Management during phased expansion to ensure that the Deer Creek WWTP is current with all its responsibilities concerning hazardous materials and their inventory, handling and emergency response training, and complaint with all relevant sections of the State Health and Safety Code.	EID	El Dorado County Department of Environmental Management	On- going	Verify compliance	

TABLE 1
MITIGATION MONITORING PROGRAM (Continued)

	Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Standards	Verification of Compliance (Initials & Date)
4.8.4a	EID shall consult and work with the El Dorado County Department of Environmental Management, the El Dorado County Fire Department, and the Marble Valley Development to design, install, or modify an appropriate site access road that would provide adequate routes for emergency entrance and egress to existing and future proposed (3.6 mgd and 10.8 mgd) Deer Creek WWTP facilities, taking into consideration construction activities. Deer Creek WWTP emergency response plans should be revised accordingly to take advantage of any new or modified access points.	EID	EID	On- going	Development of adequate routes for emergency ingress and egress to facilities	
4.8.4b	EID shall ensure through contract documents, that all contractors and subcontractors are aware and understand their responsibilities in an emergency situation, and that contractors and subcontractors keep all designated evacuation and emergency response routes free of equipment or materials that would hinder or impede a timely emergency response.	EID	EID	On- going	Execution of contract agreements with contractors	
4.9	**AESTHETIC RESOURCES**					
4.9.2a	Additional outdoor light fixtures shall be limited to low- pressure sodium lamps. High- intensity discharge light fixtures, including, but not limited to raw halide, mercury, and high- pressure sodium will be prohibited.	EID	EID	On-going	Site inspection to verify that measures are being implemented	
4.9.2b	Additional outdoor light fixtures will be designed in such a way that no light rays are emitted directly from the fixture at angles above the horizontal plane and sideway light emissions are 20 percent below the horizontal plane. Additional lighting fixtures shall be limited to safety and security purposes.	EID	EID	On- going	Site inspection to verify that measures are being implemented	
4.10	**TRAFFIC AND CIRCULATION**					
4.10.1	EID shall ensure that roadways damaged by the project are returned to pre- project conditions by implementing the following measures: ▪ Prior to construction activities, a pre- project survey of project area roadways shall be performed with El Dorado County officials and private roadway owners to determine existing roadway conditions.	EID	EID, El Dorado County, and private roadway owners	On-going	Site inspection to verify that measures are being implemented	

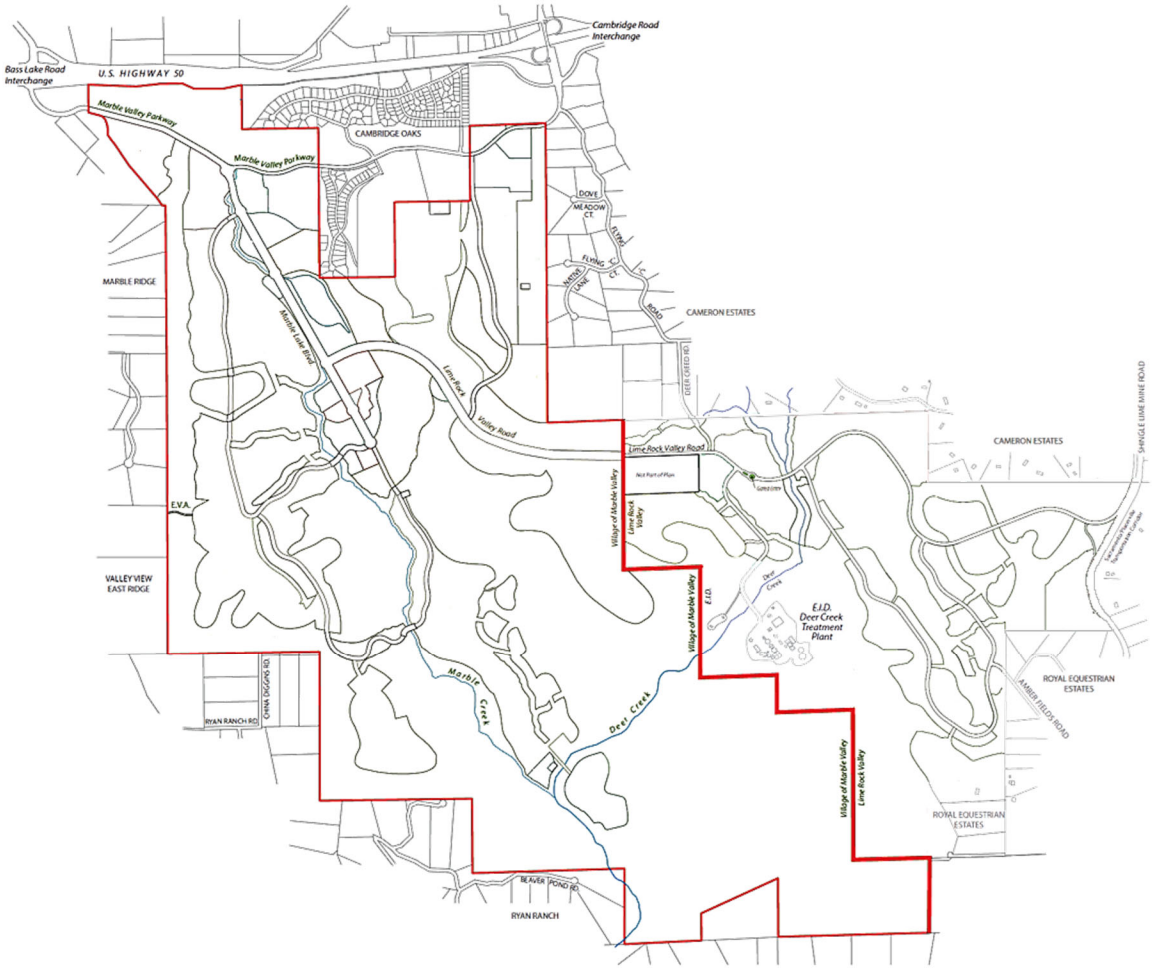
TABLE 1
MITIGATION MONITORING PROGRAM (Continued)

	Mitigation Measure	Implementing Responsibility	Monitoring Responsibility	Timing	Compliance Standards	Verification of Compliance (Initials & Date)
	▪ A post- project survey of project traveled roadways shall be performed with El Dorado County officials and private roadway owners to determine if any damage has occurred from construction activities. If damage has occurred, EID shall be responsible for repairing the damage to the satisfaction of El Dorado County and the private roadway owner.					
4.11	**CULTURAL RESOURCES**					
4.11.1	In the event that any prehistoric or historic subsurface cultural resources are discovered during construction- related earthmoving activities, all work within 50 feet of the resources shall be halted and EID shall consult with a qualified archaeologist to assess the significance of the find. This provision will be included in all construction contracts awarded by EID. If any find is determined to be significant by the qualified archaeologist, then representatives of EID and the qualified archaeologist would meet to determine the appropriate course of action to avoid impacts to the find. If the discovery includes human remains, Section VII of CEQA guidelines Appendix K shall be followed, requiring coordination with the Native American Heritage Commission if the human remains are of Native American origin. In addition, the El Dorado County Coroner shall be contacted. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according the current professional standards.	EID	EID	Prior to construction	Site inspection to verify that measures are being implemented	

Appendix M

Wildfire Risk Analysis

Wildland Fire Evacuation Risk Report
Fire Behavior
The Village of Marble Valley Project



Prepared for:
Marble Valley Company, LLC

and

El Dorado Hills Fire Department
El Dorado County Fire Department

Prepared By:

firesafe ::PLANNING SOLUTIONS

10/24/23

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Executive Summary

A review of the expected fire behavior in the interface of the Marble Valley development indicates that the fire behavior could produce extreme fire behavior, and as such, risk reduction measures will be necessary. Many of these risk reduction measures are required by the State and Local fire/building regulations, fire department standards, and guidelines, and by risk reduction measures already considered and applied by the development review process. Fire behavior modeling predicts that there will be varied timeframes for evacuation of the Project Site under fire scenarios where the fire is burning into the community from an adjacent area. Each scenario has its own set of parameters. Where fires are initialized within the Project Site or near its boundary, the fire incident command and control may have to determine if the population will be moved or "sheltered in place."

The proposed community with its increased built-in fire protection features (defensible space, fuel modification, hardening of the structures and required maintenance), placement of the structures on the topography, overall orientation to the fuels, wind, and slope and nested (safe center) configuration would be a candidate for a "shelter in place" decision. While "shelter in place" is never a first option, history shows us that moving populations, once the fire has arrived, has increased risk, and should not be attempted when safe alternatives exist.

The configuration of the Project Site, the placement of the structures and features on the topography and the nature of the wildland fuels surrounding the project create conditions where the fire will travel at great speeds when wind, slope and fuel align but all of the access points are not impacted by fire at the same time.

The fire behavior static modeling in this report with flame lengths of up to 55' under the worst-case scenario would be protected by compliance with the Fire Department fuel modification/defensible space standards. Fuel modification/defensible space is designed to reduce and change the fuel types as the combustible vegetation gets closer to the structure. As a "rule of thumb," two times the maximum flame length is adequate protection from radiant heat in a hardened structure. These distances also protect from direct flame contact (a distance greater than the flame length by a factor of two) and convected heat (less impactful than the radiant heat distance as discussed previously). The structure hardening (including ember intrusion projection) protects from embers and brands which may travel long distances under worst-case conditions.

The configuration of the Project Site development areas, the increased number of evacuation alternatives and the enhance protection features within the building construction and defensible space of the Project Site creates the conditions necessary to allow the resident to have viable options for all fire scenarios in the event that the community is impacted by a wildland fire. This report will be used as the basis for fire behavior assumptions in the evacuation modeling for the Project Site.

Introduction

The Village of Marble Valley Specific Plan (VMVSP, also referred to herein as the Project Site) is a proposed master-planned community by Marble Valley Company, LLC, located in the historic Marble Valley in the western foothills of El Dorado County. The VMVSP encompasses approximately 2,341 acres south of U.S. Highway 50, east of Bass Lake Road and west of Cambridge Road. The Specific Plan features a variety of residential types supported by employment, commercial, and recreational uses accessible to the public, including a village center, schools, vineyards, wine center, and historic park. The Specific Plan incorporates contemporary planning principles through a series of integrated land uses and transportation options, clustering a majority of the development footprint along a one-mile core with interconnecting trails and open spaces.

Purpose and Scope of Report

Firesafe Planning Solutions performed an assessment of risks related to wildfires in order to assess the intensity of a wildfire approaching the Project Site. This report provides the results of that assessment and objective hazard and risk assessments which can be used to establish the community risk reduction measures (hazard less reduction measures = risk) that are equal to or greater than the hazards which would be encountered in a worst-case scenario.

The study takes into consideration existing/future vegetative interface fuels, topography, fire , and weather conditions during extreme fire conditions. The report provides results of computer calculations that measured the fire intensity, flame lengths, rate of spread, and fire travel distance (arrival times) from worst-case scenario wildfires in both the extreme (Diablo wind) and the predominant (Onshore wind) wind conditions.

The Fire Hazard Planning Technical Advisory General Plan Technical Advice Series, 2022 Update Finalized – August 2022, Figure 7, Page 31, from the Governor's Office of Planning and Research, provided a visualization of risk vs hazard for wildfires as shown in Figure 1. This report will use this guidance and terminology.

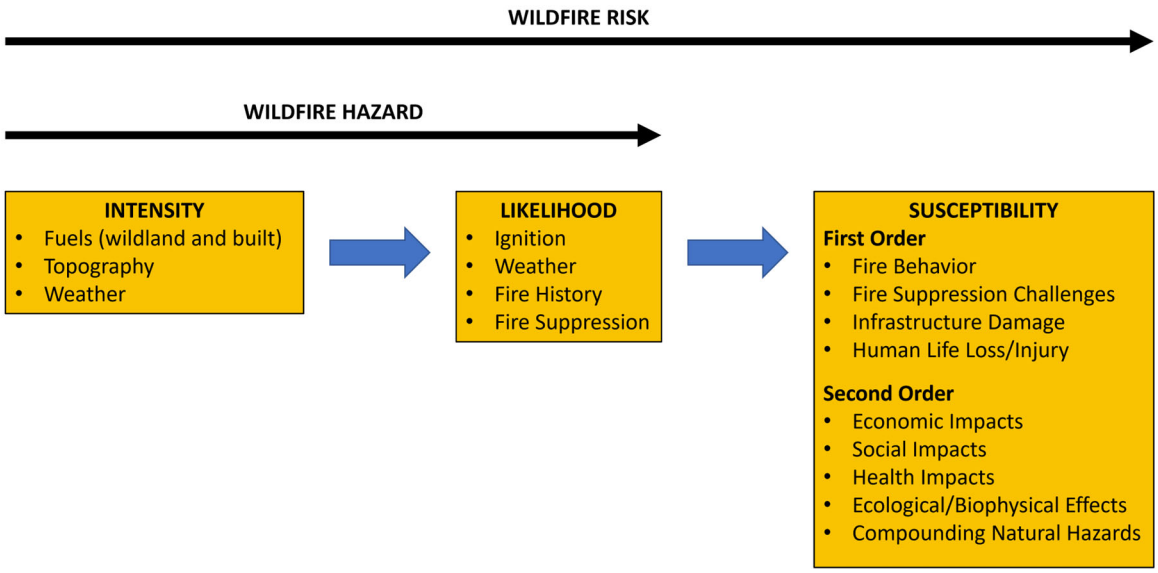


Figure 1 - Visualization of risk vs. hazard for wildfires-

The results of fire behavior calculations have been incorporated into the analysis of the interfaces of the project with adjacent wildlands and the potential ingress/egress routes used by the Project Site on a daily basis and under emergency conditions where evacuation might be possible.

Scope

This document will address the following tasks as outlined in the California Attorney General's "*Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act*" (AG Guidelines):

1. Determination if project impact will substantially impair an adopted emergency response plan or emergency evacuation plan.
2. Determine the project-specific Wildland Fire Hazard and Wildland Fire Risk to quantify issues that may exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
3. Determine if the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment;
4. Determine if people or structures will be exposed to significant risks due to the completion of the project; and
5. Consider whether a project will "expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires."

CEQA Appendix G,

Section XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a. Substantially impair an adopted emergency response plan or emergency evacuation plan.

b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

The AG guidelines encompass the CEQA Appendix G, Section XX, subsection a, b, and c requirements, and as this report addresses the AG guidelines, it addresses the Appendix G issues in the same effort. This report will not speak to the Appendix G requirements directly except as it applies to evacuation.

Project Description

The Project Site comprises approximately 2,341 acres located in the unincorporated area of the County of El Dorado (County) south of U.S. Highway 50 (US 50) and is located approximately 19 miles west of Placerville and 24 miles east of downtown Sacramento (Figure 2, Regional Location Map). This is where the 398-lot Marble Valley Master Plan was previously approved by the El Dorado County Board of Supervisors in 1998. If approved by the Board of Supervisors, the proposed VMVSP would replace the 1998 Master Plan approval. The site is approximately 1,000 feet southeast of US 50 and the Bass Lake Road interchange in El Dorado Hills, California (Figure 3, Project Location).

The Project Site is surrounded by the Cambridge Oaks residential development and US 50 to the north; Marble Ridge residential development and Valley View Specific Plan area to the west; Ryan Ranch residential development to the southwest; Sun Ridge Systems to the south; and Cameron Estates, the proposed Lime Rock Valley Specific Plan, Deer Creek Wastewater Treatment Plant, and Royal Equestrian Estates to the east.

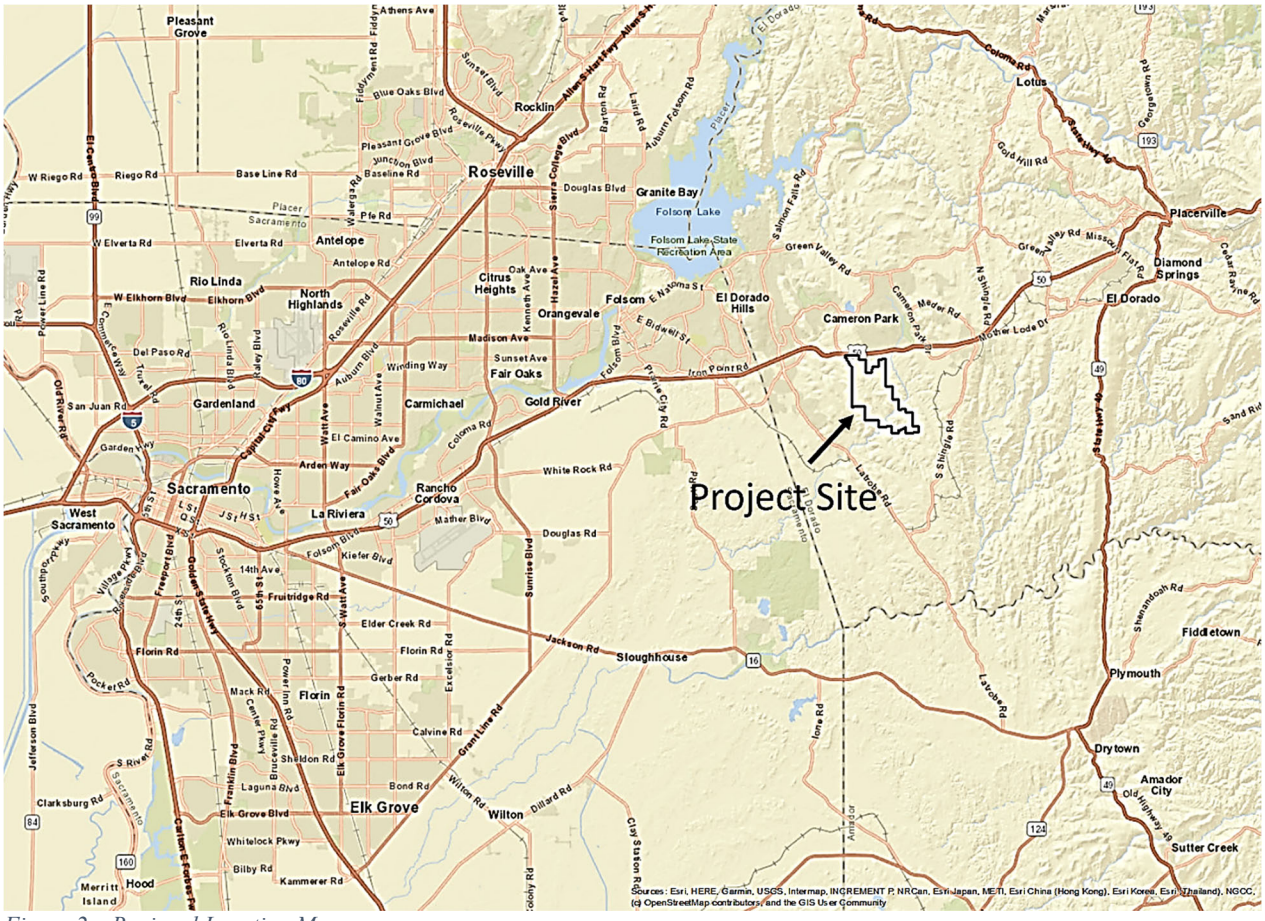


Figure 2 – Regional Location Map

The Project Site has two configurations under review for this analysis. The first is the project on its own; the second, is a configuration with an adjoining project (Lime Rock) to the east which will share some infrastructure (roads and evacuation points) with the Project Site (Figure 3).

The Project Site is proposed with up to 3,236 dwelling units, 475,000 square feet of commercial use, 87 acres of public facilities/recreational use, 1,282 acres of open space, 42 acres of agricultural use, and 73 acres of new road impact areas and future right-of-way. Planned improvements will take place on approximately 1,875 acres located mostly north of Deer Creek. The proposed project is designed in a manner that concentrates a majority of the development (clustered development) along a 1-mile core adjacent to the entry roadway and preserves, enhances, and highlights the historic character of the site derived from the historical use of the property for limestone mining.

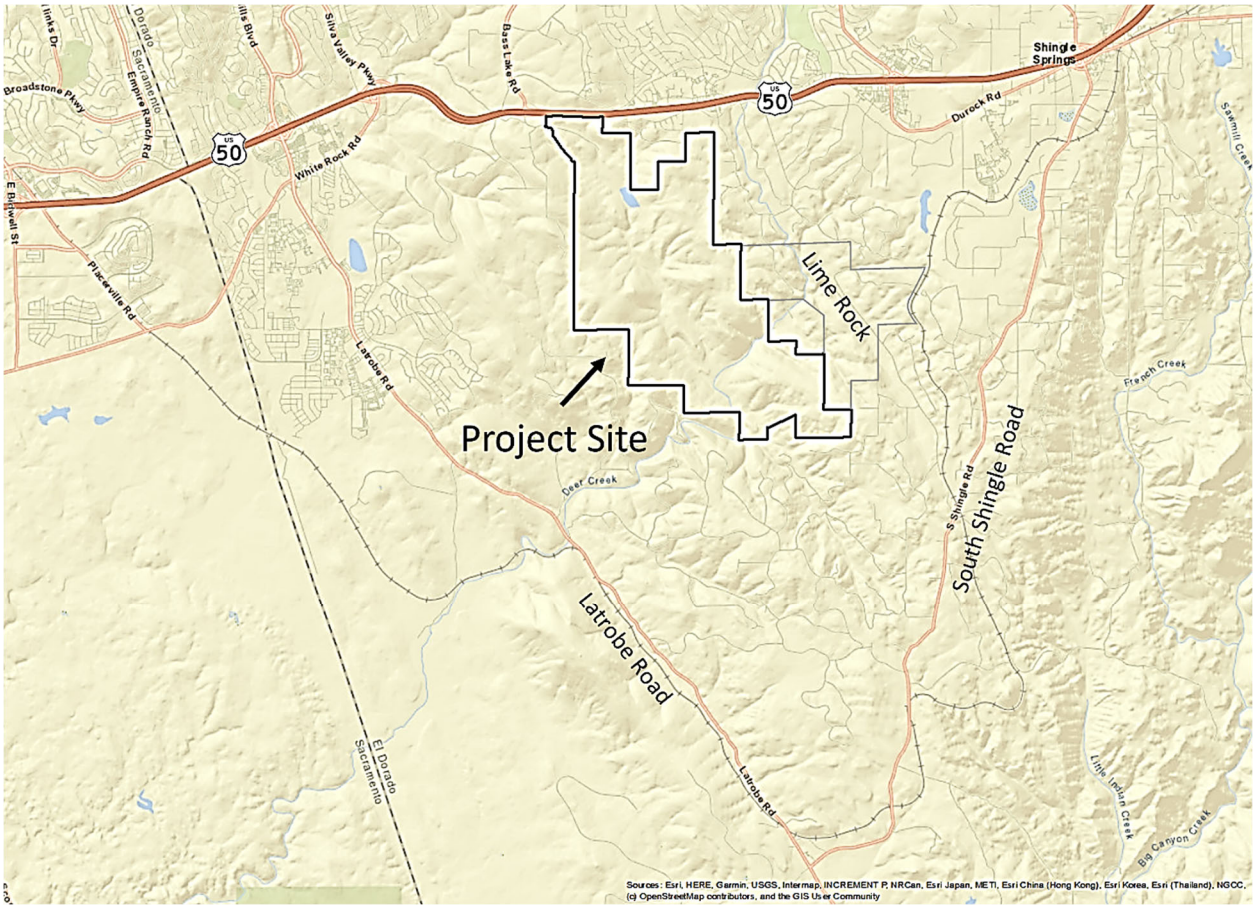


Figure 3 – Vicinity Map

Current Environmental Conditions

General Location of Site and Adjacent Wildland

The Project Site will have undeveloped natural areas on all sides of the majority of the development area rather than directly abutting existing development. The site was designed with the "clustered development" concept, where density is concentrated in the development area to maximize the amount of open space on the balance of the site. This is illustrated in Figure 4.

The majority of the unclassified (no dominant lifeform – light red) is in the existing development areas. The grasses are indicated in light yellow, the shrubs in dark brown, and the green and

light blue areas are trees. The dark blue (non-vegetated) areas are water bodies or quarries for the most part.

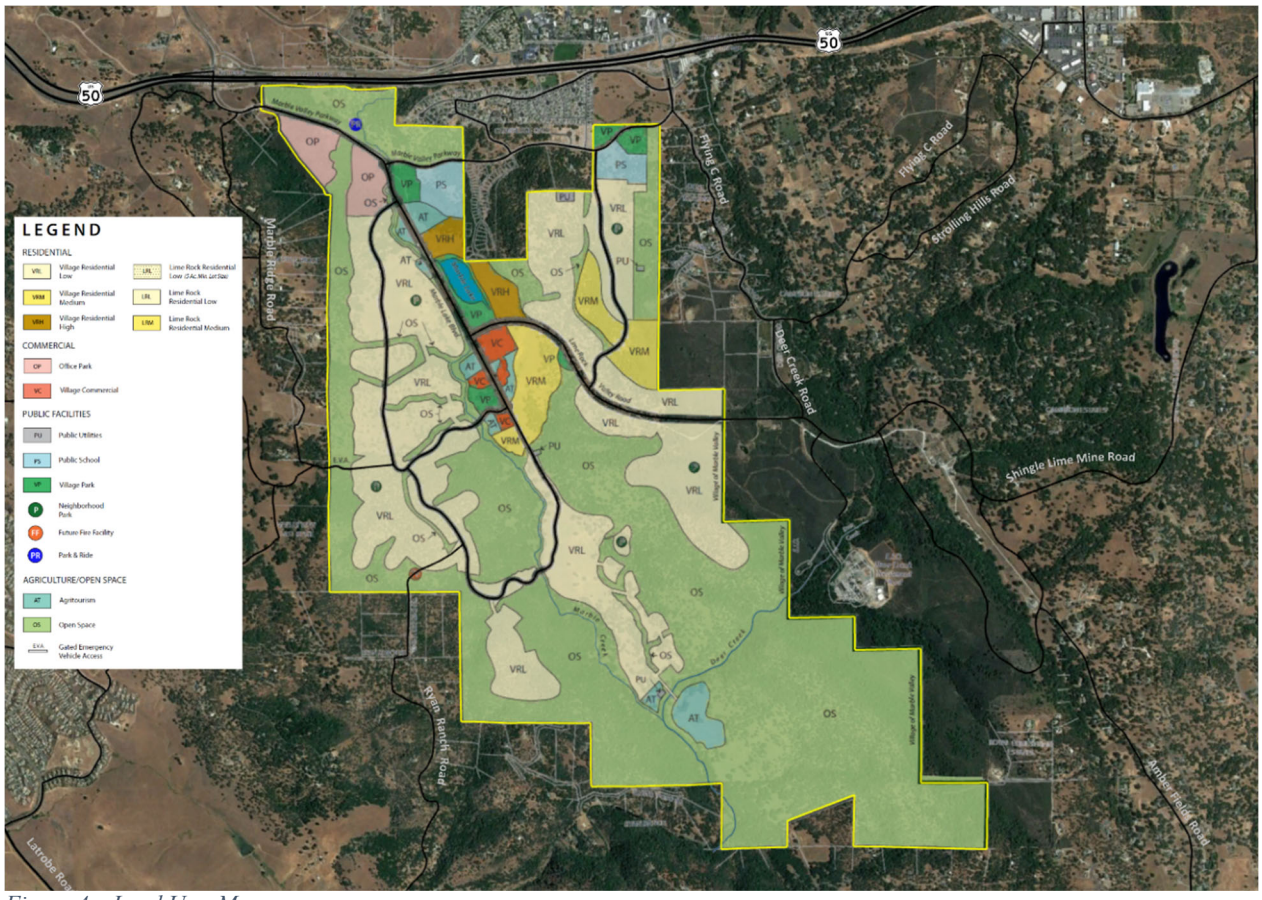


Figure 4 – Land Use Map

Landfire data is provided in 30-meter grids with the predominant value in the grid representing the entire grid. This is true for all of the data sourced from the Landfire site (elevation, slope, aspect, wildland fuels, existing vegetation type, canopy coverage, etc.). It is necessary to review the data to ensure that processing errors have not occurred, which has been done at a macro level.

The wildland interface is a mixture of Herbaceous (grasses) and Shrublands (chaparral/brush) and conifer/oak woodlands. Much of this open space will be native species with the exception of the fuel modification/defensible space zones. Fire behavior modeling was completed using the data from the Landfire data site (https://www.landfire.gov) which provided the source for the fuels types, vegetation type, slope, aspect, and elevation for this report and for the models used in this report. Figure 5 provides an illustration of the various wildland fuel types (grasslands, shrublands, tree covered/canopy (open or sparse), sparsely vegetated, no dominant vegetation) in general categories. For the most part, this illustration is simply grass, shrub, trees, little vegetation or areas where the diversity of vegetation does not allow for classification under this category.

When the development area is added (Figure 6), it is possible to see the interface that will be created with this project. Figure 7, on the following page, provides the development area for the alternative development configuration (Lime Rock Project) to illustrate the east interface if that development occurs as currently envisioned. A large amount of the shrub interface is eliminated or modified, reducing the wildland threat in that area.

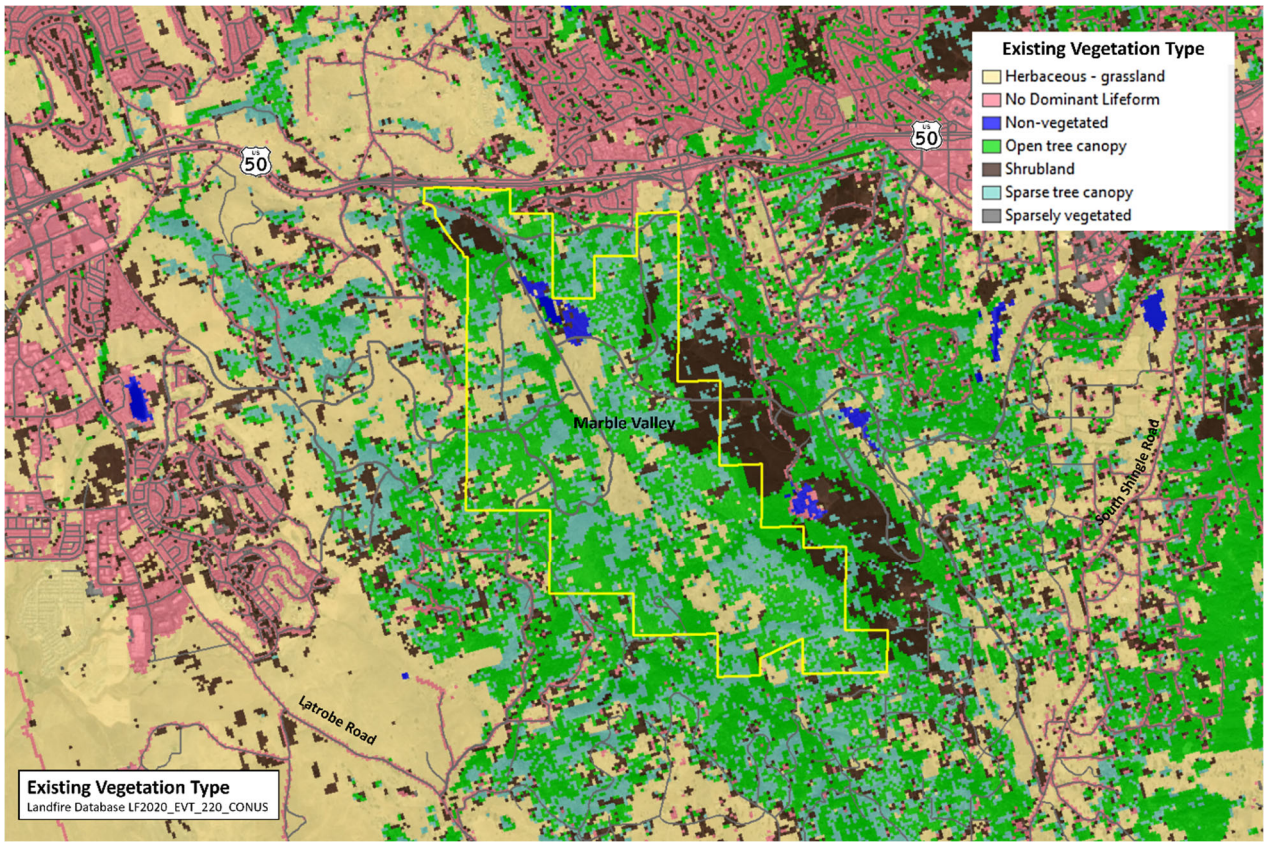


Figure 5 – Vegetation Type Map

Agency responsible for fire protection

The El Dorado Hills Fire Department (EDHFD) is the service provider to the Project Site on the west side of the Project Site and El Dorado County Fire Protection District (EDCFPD) is the current service provider to the east side of the Project Site as shown in Figure 8.

As shown in Figure 9, the entire Project Site is in SRA. All, or nearly all, of the SRA lands, are in one of the three Fire Hazard Severity Zones classifications. (Very High, High, or Moderate).

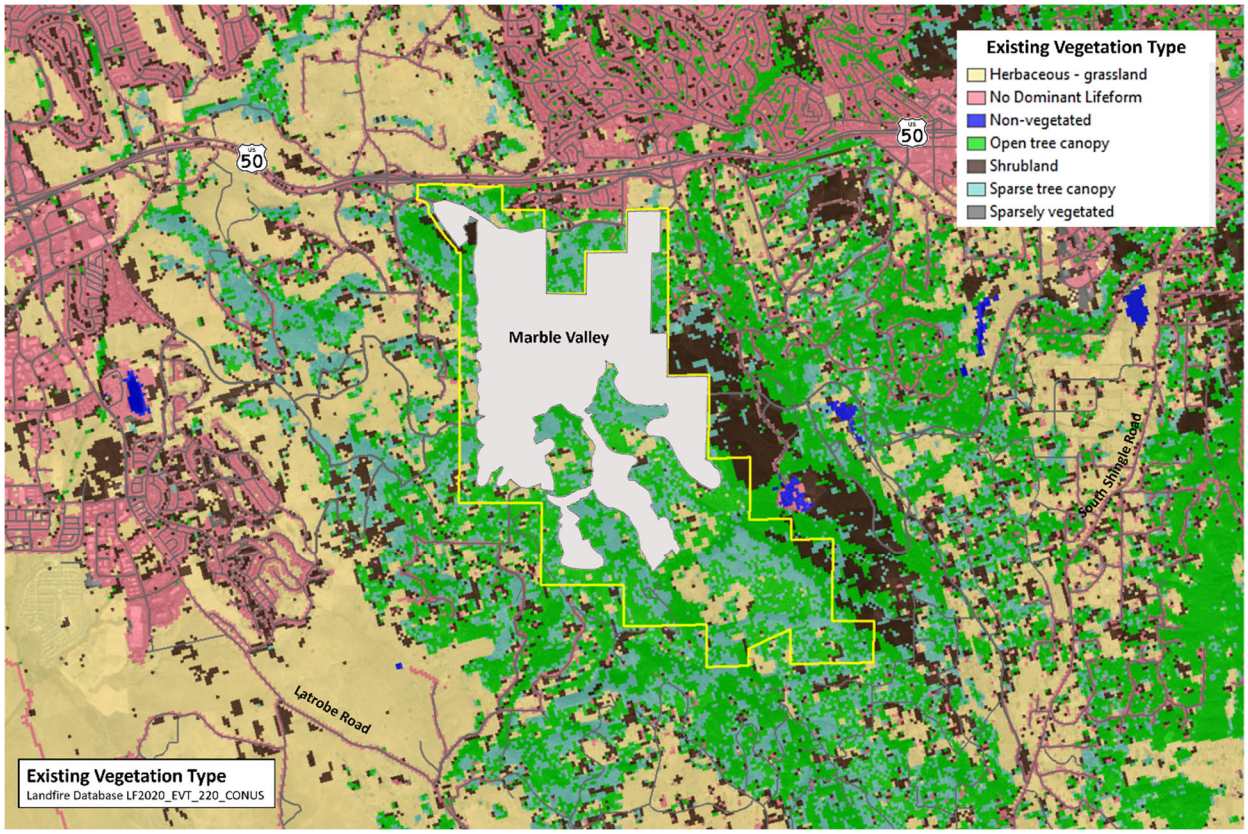


Figure 6 – Vegetation Type Map with Development Area for Marble Valley

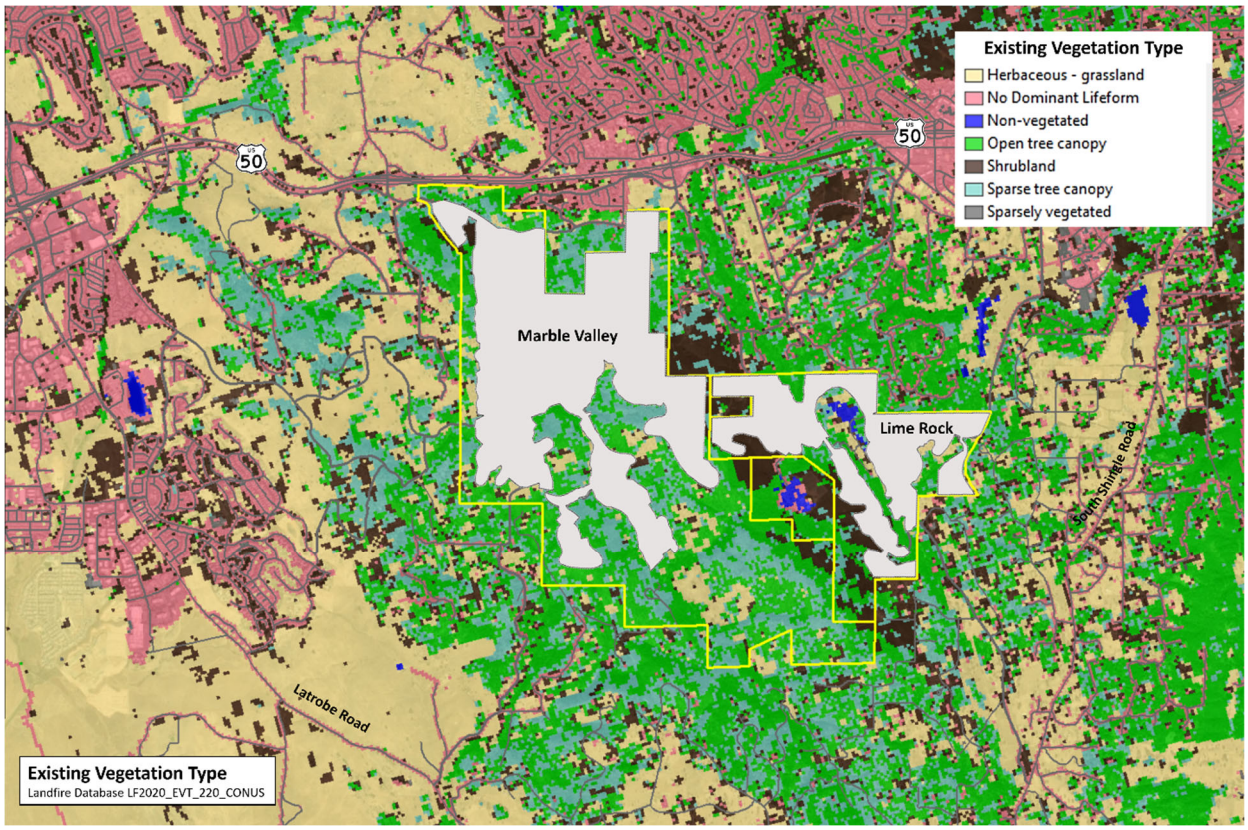


Figure 7 – Vegetation Type Map with Marble Valley and Lime Rock Development Areas

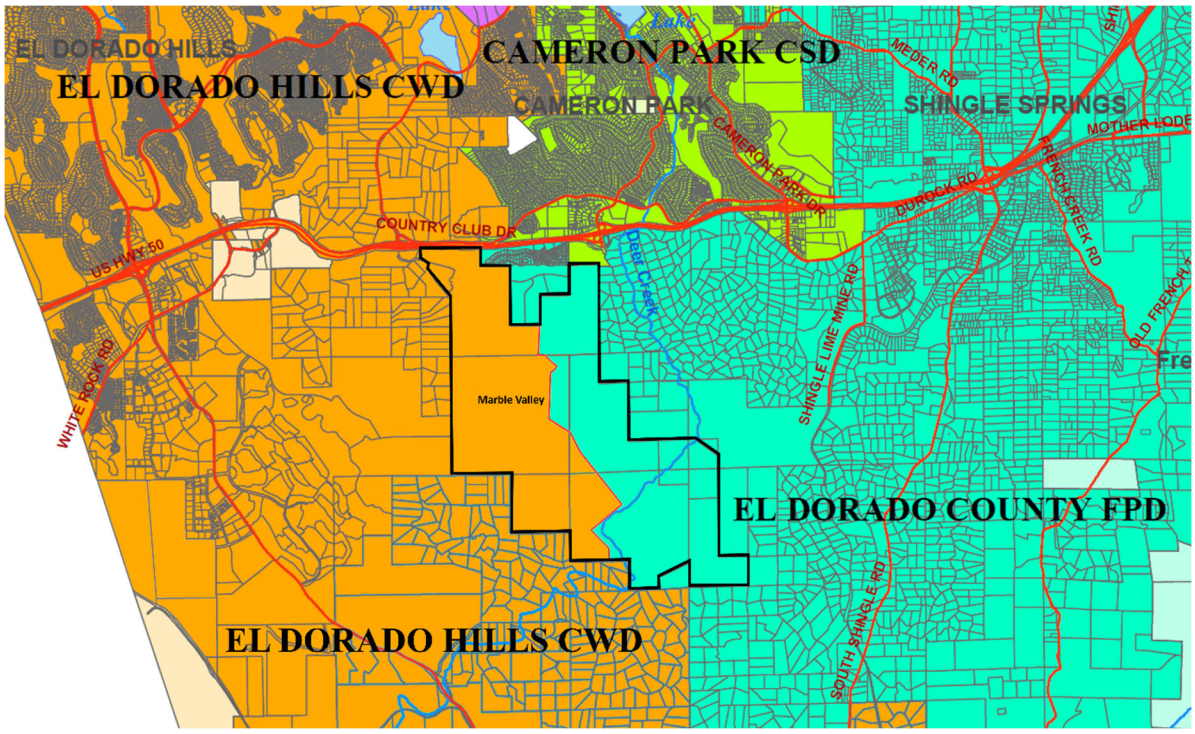


Figure 8 – Fire Protection Area Boundaries

SRA/LRA/FRA

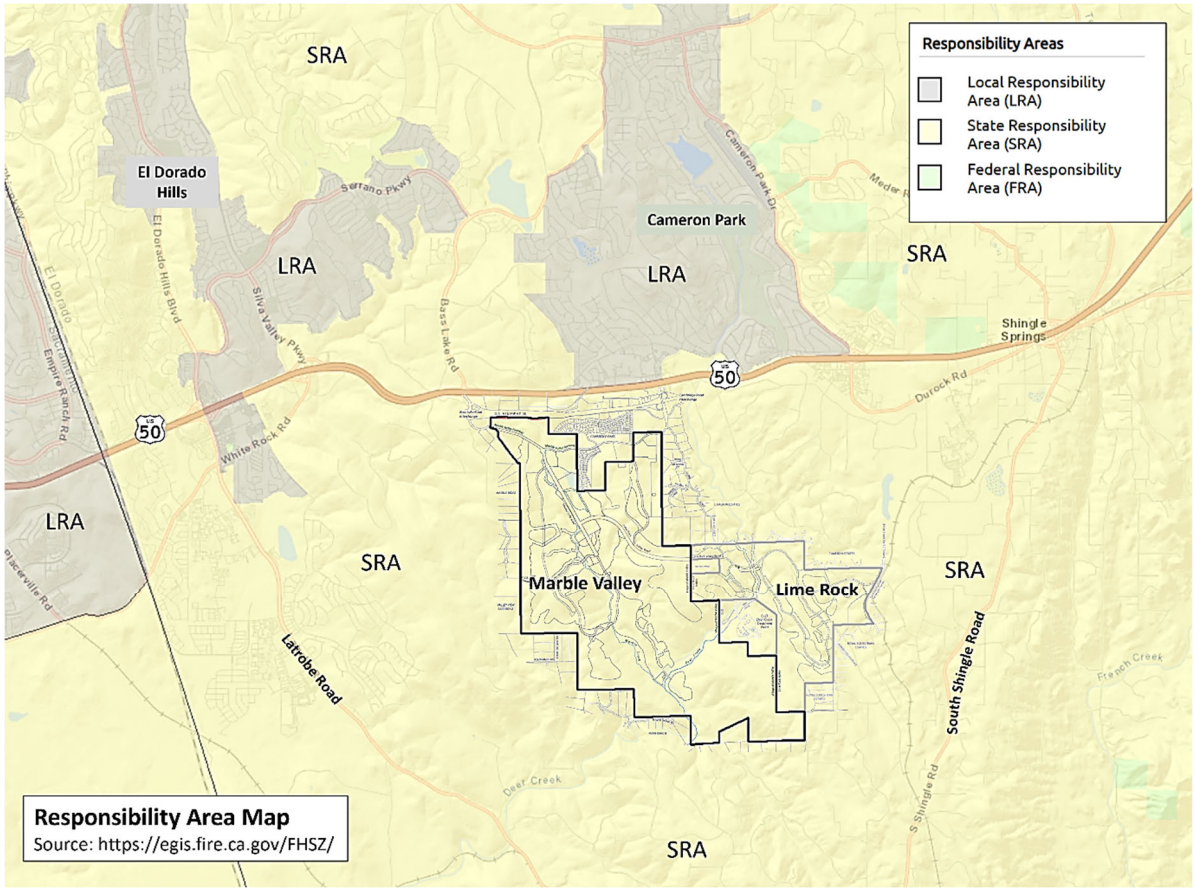


Figure 9 – Map Responsabilty Areas (SRA/LRA/FRA)

Fire Severity Zones and proximity

Fire Hazard Severity Zones are currently based on potential fuels, fire weather conditions, and terrain and represent potential fire hazard exposure to structures and other human infrastructure assets. FHSZ areas are adopted as a Title 14 regulation, fulfill the obligations laid out in Public Resources Code (PRC) Sections 4201-04, and are essential in various fire safety regulations, building construction standards, and real estate hazard disclosure requirements. These zones were determined in November 2007 for SRA and September 2008 for LRA and are currently in the process of being revised by CalFire (CalFire Website). The 2007 Fire Severity Zone Map is provided in the Reference section of this report. New "draft" maps are out for review for the SRA areas for the entire state. In Figure 10, are the proposed classification for the Protect Site and adjoining lands. These new maps will be adopted within the next few months. The map shown in Figure 10 is the configuration which is being recommended for adotpion.

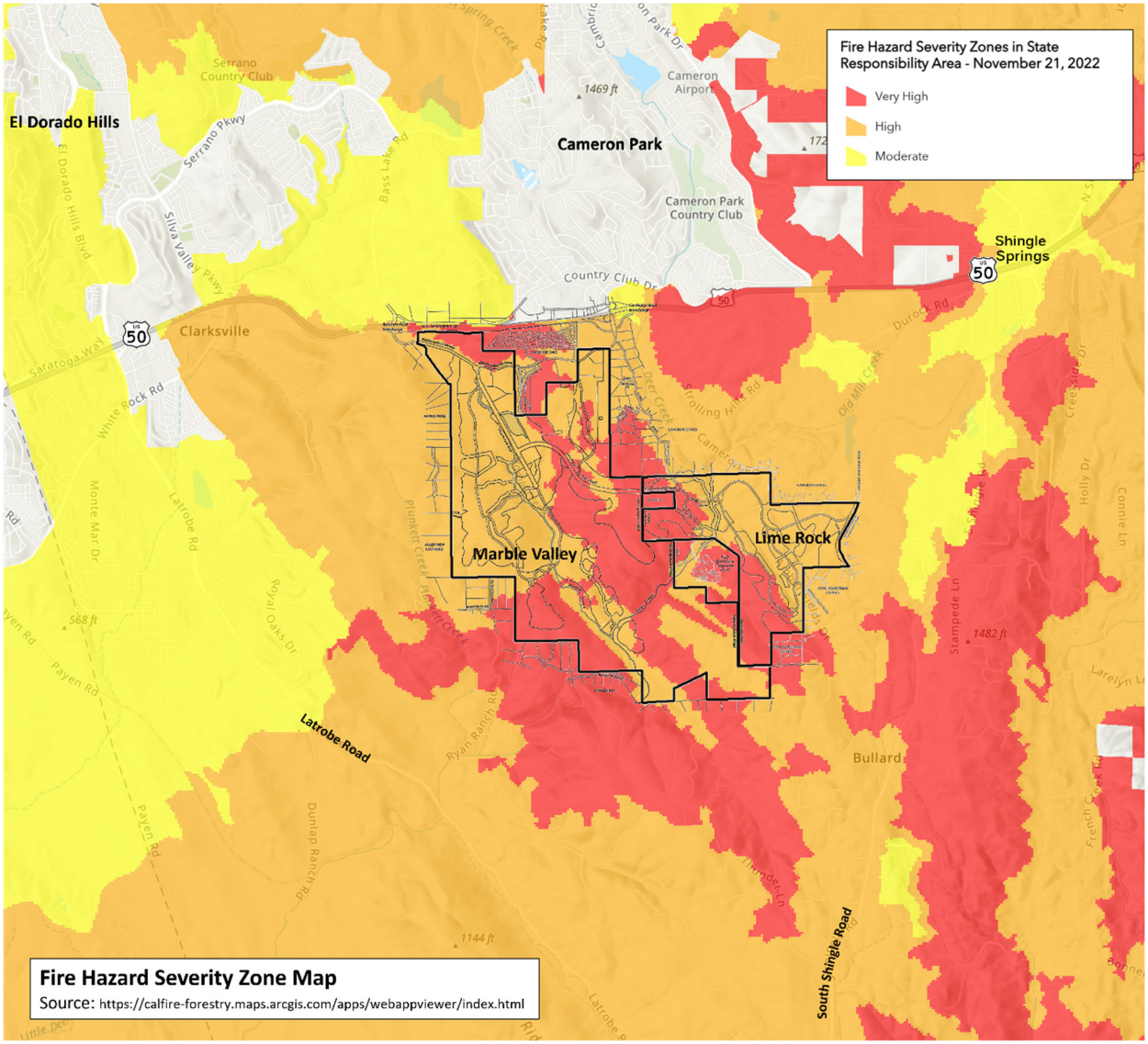


Figure 10 – Fire Hazard Severity Zones (2022)

Wildland Interface/Intermix

The wildland-urban interface (WUI) is defined by the U.S. Forest Service as any area where "humans and their development meet or intermix with wildland fuel." This area includes communities that are within a half-mile of this interface. The WUI is classified into two categories:

1. Interface WUI — where structures are adjacent to the wildland vegetation. A clear line of delineation is provided.



2. Intermix WUI — where structures intermingle with wildland vegetation. Each structure or group of structures has its own interface.



Figure 11 – Interface vs. Intermix

Source: "Fire FAQs-Are Structures Fuel? The Wildland Urban Interface and the 'Built' Environment", Daniel Leavell, Stephen A. Fitzgerald, Carrie Berger, Gavin Horn, EM 9291 Published August 2020

The Project Site will utilize a WUI Interface for each of the planning areas. Some native areas will remain between planning areas, but most of the development will create areas where the only interface with native fuels will be on the perimeter. Figure 4illustrates the project's WUI interface. This is discussed in more detail in the analysis of the fire behavior.

Codes, guidelines, and standards

The Project Site will be required to provide protection measures as required by a number of Laws, Codes, Ordinances, Regulations, Guidelines, and Standards (collectively, Regulations). Most of the Regulations apply to all areas of the Project Site. Below are the major Regulations that will impact the Project Site:

- PRC Sections 4290 through 4299.
- PRC Sections 4201 through 4204 for State Responsibility.
- Title 14 of the California Code of Regulations (14 CCR), Division 1.5, Chapter 7, Subchapter 2, Articles 1-5, "State Minimum Fire Safe Regulations."
- California Code of Regulations, Title 24, Part 9, California Fire Code, Chapter 49.

- California Code of Regulations, Title 24, Part 2 (Volumes 1 and 2), California Building Code, Chapter 7A.
- California Code of Regulations, Title 24, Part 2.5, California Residential Code, Section R337.
- Fire Code of the El Dorado Hills County Water District (California State Fire Code as amended and adopted)
    - Section 4906 – Vegetation Management
    - Section 4907 – Defensible Space
- El Dorado County Vegetation Management and Defensible Space Ordinance #5101,
- El Dorado Hills Fire Department, Fire Protection Standards will apply to the west side of the project.
- El Dorado County Regional Fire Protection Standards apply to the entire site (adopted into the EDHFD standards)

As further described below, the Project Site will have wildland-specific requirements before, during and after construction.

Prior to Construction

The Protect Site will be required to have an approved Fire Safe Plan concurrent with the submission of any small lot subdivision of land that would result in five (5) or more parcels within the EDHFD responsibility areas (Specific Plan Policy 6.47 provides for the Fire Safe Plan at the Tentative Map submittal). A Fire Safe Plans shall be based on a site-specific wildfire risk assessment that includes considerations of the location, topography, aspect, flammable vegetation, climatic conditions, and fire history. The plan addresses water supply, emergency vehicle access, building ignition and fire-resistance factors, fire protection systems equipment, defensible space, fuel breaks, buffer zones and vegetation management to reduce hazard severity and risk. The Fire Safe Plan summarizes all fire related recommendations for the project, the timing in which the recommendations are to be implemented, and who the responsible party is to complete these recommendations.

Additionally, El Dorado Hills Fire Department Standard W-002 (Dated 6-6-22) requires that prior to the recording of a Parcel Map or approval of a Final Subdivision Map, or other entitlement for projects described in Section IV by the County of El Dorado, the project shall adequately demonstrate that all provisions of the Fire Safe Plan, including the maintenance of green belts, greenways, fuel breaks, shaded fuel breaks, and other vegetation management requirements, have either:

> [1] been met to the satisfaction of the AHJ (Authority Having Jurisdiction) and CAL FIRE; or
>
> [2] that a development agreement or bonding of the required infrastructure has been agreed to by the AHJ and CAL FIRE.

Areas within the EDCFPD will also be a part of the Fire Safe Plan per the Specific Plan Polices.

The Project Site Specific Plan requires the development process to abide by a number of policy decisions, some of which are provided below for this project:

C.17 Public Services (Fire Protection)

Policy 7.25
The local fire protection district shall review and approve all discretionary applications for tentative subdivision maps, parcel maps, and planned development permits prior to County approval to ensure the adequacy of emergency water supply, storage, conveyance facilities, and access for fire protection. Recommendations may be incorporated as conditions of approval.

Policy 7.26
After the adoption of the Specific Plan and prior to the submittal of the first small lot tentative subdivision map, the Project Proponent will prepare a Wildfire Safety Plan (WSP). The California Department of Forestry and Fire Protection and the applicable local fire protection district (El Dorado Hills County Water District or the County Fire Protection District) will review and approve the WSP prior to the approval of the first small lot tentative subdivision map.

Policy 7.27
Pay all applicable fire impact fees at building permit issuance and/or participate in any applicable Mello Roos districts required to fund public facilities as specified in the PFFP.

As indicated, the Wildfire Safety Plan (Fire Safe Plan) will be completed for review prior to the first small lot tentative subdivision map submittal and must be approved by CalFire and the applicable local fire district prior to the approval of that first small lot tentative subdivision map.

- The plan evaluates whether the project will substantially impair an adopted emergency response plan or emergency evacuation plan.
- The plan identifies potential mitigation measures that can be adequately employed to reduce the impacts caused to the existing response or evacuation plan.
- The plan evaluates whether the project exacerbates the wildfire risk due to slope, prevailing winds and other factors.
- The plan identifies potential mitigation measures that can be adequately employed to reduce the overall wildfire risk due to the factors identified.
- The plan identifies the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or on-going impacts to the environment.

- The plan identifies potential mitigation measures for vegetation reduction around emergency access, evacuation routes and associated infrastructure that can be implemented to ensure that this infrastructure is installed and maintained by the project and successor parties.
- The plan identifies whether the project will expose people or structures to significant risks, including downslope or downstream flooding or landscape, as a result of runoff, post-fire slope instability, or drainage changes.
- The plan evaluates the local fire protection capabilities; and fire suppression water supply capabilities to necessary to adequately serve the project and makes recommendations to improve or mitigate deficiencies identified during the analysis of the project.
- The plan evaluates community wildfire evacuation routes required for the project for their capacity, safety, and viability under a range of scenarios and to ensure consistency with CAL FIRE, CAL OES and AHJ requirements.
- The plan provides legally binding statements regarding community responsibility for the maintenance of fuel modification zones. The legally binding statements is required to be incorporated into the project covenants, conditions, and restriction regarding property owner responsibilities for vegetation maintenance.

Protection During Construction

Both fire agencies (EDHFD and EDCFPD) have adopted Chapter 33 of the California State Fire Code entitled Fire Safety During Construction and Demolition with amendments. This section of the Fire Code provides requirements for "Precautions Against Fire", Combustible and Flammable Liquids, Flammable Gases and Explosive. Additionally, it requires readily accessible means of reporting emergencies, access roadways and fire department water supply to all areas where combustible construction is occurring.

This section (CFC Chapter 33) requires the development, implementation, and maintenance of an approved, written Site Safety Plan establishing a fire prevention program at the Project Site applicable throughout all phases of the construction, repair, alteration, or demolition work. This plan addresses the requirements of the Fire Code, the duties of staff, and staff training requirements. The Site Safety Plan must be submitted and approved before the issuance of a building permit. Any changes to the plan must be submitted and approved by the fire department.

Prior to the approval of a certificate of occupancy for a building, the project shall demonstrate to the satisfaction of the AHJ and CAL FIRE that the project complies with all applicable provisions found in the Fire Safe Plan.

Protection After Construction

The Project Site is within a Fire Hazard Severity Zone, which requires the enforcement of Fire Chapter 49. This chapter provides for increased wildfire building construction protection (maintenance, additions, and remodels must be in compliance with wildland standards), vegetation management, defensible space, and compliance with an Approved Fire Protection Plan. These requirements provide for the implementation and maintenance of California Building Code Chapter 7A, California Residential Code Section R337, and Californian Reference Standards Code Chapter 12-7A. It further requires that buildings and structures be

maintained in accordance with California Public Resources Code Section 4291, California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 3, Article 3, Section 1299.03; California Government Code Section 51182 and California Code of Regulation, Title 19, Division 1, Chapter 7, Subchapter 1, Section 3.07. The Project Site is also within the SRA, which requires it to comply with the SRA Fire Safe Development Regulation as specified in Title 14, Division 1.5, Chapter 7, Subchapter 2. The Project Site will need to be maintained to the same standards and Regulations that were applicable at the time of construction on an ongoing basis.

Additionally Standard W-002 requires that prior to June 1st of each year the property owner or their representative shall demonstrate to the satisfaction of the AHJ and CAL FIRE that the project:

[1] complies with all relevant provisions of the Fire Safe Plan; and

[2] that all fire hazards in the development have been mitigated.

This standard further requires that the Fire Safe Plan be reviewed and updated by the property owner (Home Owners Association or HOA for common areas) no less than once every five calendar years after its original approval to ensure that the project complies with all current regulations and requirements for existing developments. The AHJ and CAL FIRE shall review and approve this plan update prior to its use. The AHJ is responsible for routine inspections of all of the installed fire protection features (including fuel modification and defensible space).

In accordance with AB38 Inspections (California Civil Code §§ 1102.6f and 1102.19) properties must be inspected by the local fire agency during the escrow process when property changes hands. Compliance can be deferred for up to one year, with the responsibility shifting to the new owner if agreed to by both parties.

Public Information and Resident Education

All of the requirements for the fuel modification/defensible space zones, defensible space requirements, limitations on remodels/additions on the interface lots, and community planting restrictions will be included in the disclosure documents provided to the owners during the escrow process. Additionally, these requirements will be fully detailed in the Project Site CCR's (Covenants, Conditions, and Restrictions) legal documents that are filed with the county recorder's office and made a part of the official real estate records that run with the land that is part of the community. The HOA will have the responsibility to inform the residents of the requirements, review and approve changes to the property and provide a process to ensure compliance with the community standards where applicable. The CCR's will be reviewed and approved by various governmental agencies (El Dorado Hills Fire, El Dorado County Fire, CalFire, and the County of El Dorado) in the development process.

Project Analysis - Wildfire Hazard and Risk

The analysis of Wildland Fire Risk starts with the review of the hazards, the likelihood of an event, and the intensity of that event which is then examined against the vulnerability (exposure and susceptibility) to provide a "level of risk."

Wildfire Hazard

Likelihood

Wildfire likelihood is the probability of a wildfire burning in a specific location. At the community level, wildfire likelihood is assessed in the area where development is present. The likelihood is the probability that any specific location will experience a wildfire in any given year. Fire history is the main data source for this analysis along with potential ignition sources and weather conditions that lead to extreme fire behavior.

Fire History

The Project Site is not within/adjacent to a historic fire corridor. When the fire history is viewed in total (all records available) this is evident (Figure 12). Most fire travels SW/NE as evident by the elongated fire perimeter. The Scott Fire in 1996 appears to have originated under NW wind which changes to SW wind as it progresses (shape implies this). It also shows a few fires running S to N, such as the Joerger Fire 1964 (small cones pattern getting larger as it goes N). The largest fire shown is the Quarry Fire in 1976 (20,869 acres).

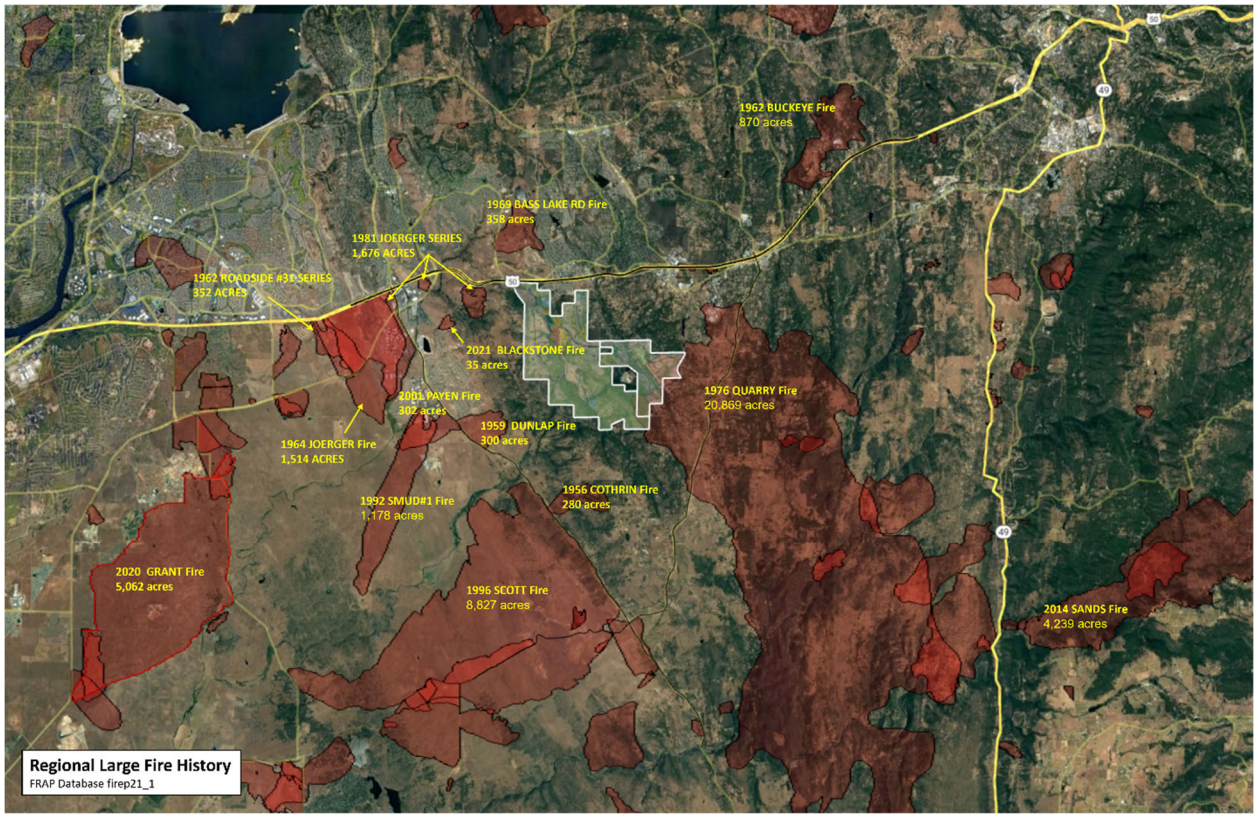


Figure 12 – Fire History for the regional area (all fires/all years)

Large fires in the area are due to several issues. Access and topography are part of it. Roads in the lands to the east, west, and south of the Project Site have limited access to the areas where these fires can burn. The topography can be steep, and most of it is well-vegetated. The general area does not have a large number of fire stations which can arrive quickly in the early stages, and fires that occur are generally related to the transportation and infrastructure (powerlines and roads) in the area that provide the ignition sources in many cases. This area sometimes experiences thunderstorms/lightning which produce strong winds and ignitions without the rainfall necessary to put out the spot fires. All of these factors are covered in more detail later in this report.

Weather

The weather has a significant impact on the ability of a small fire to become a large fire. Within the weather category, wind, relative humidity, temperature, and interaction with the topography are especially impactful.

High temperature, low humidity, and wind combine to create "Fire Weather". In the general area of the Project Site, the regional weather has a strong history of extreme Fire Weather. Conditions like these are common to the point where the National Weather Service has a specific system used to identify when extreme conditions are being achieved, and additional action should be taken. On its website, CalFire describes as follows:

> *The National Weather Service issues Red Flag Warnings & Fire Weather Watches to alert fire departments of the onset, or possible onset, of critical weather and dry conditions that could lead to rapid or dramatic increases in wildfire activity.*
>
> *A Red Flag Warning is issued for weather events which may result in extreme fire behavior that will occur within 24 hours. A Fire Weather Watch is issued when weather conditions could exist in the next 12-72 hours. A Red Flag Warning is the highest alert. During these times extreme caution is urged by all residents because a simple spark can cause a major wildfire. A Fire Weather Watch is one level below a warning, but fire danger is still high.* Red Flag Warnings & Fire Weather Watches (ca.gov)

Extreme Fire Behavior is a term used by the National Wildfire Coordinating Group (NWCG) for conditions which imply a level of fire behavior characteristics that ordinarily precludes methods of direct control action. One or more of the following is usually involved: high rate of spread, prolific crowning and/or spotting, presence of fire whirls, and strong convection column. Predictability is difficult because such fires often exercise some degree of influence on their environment and behave erratically, sometimes dangerously.

Temperature

The temperature in and of itself does not have a large impact on fire behavior but the effects of temperature on other factors such as Relative Humidity make temperature important to the fire behavior discussion. More direct sunlight increases fuel temperatures and decreases the amount of heat needed to raise the fuel to its ignition temperature, but since most wildland fuels must be

raised to over 400ºF to sustain combustion, the difference of 10 or 20 degrees in the atmospheric temperature has limited direct effect.

Relative Humidity

Relative humidity (RH) indicates how much moisture is in the air. Expressed as a percentage, it provides an objective measurement of the amount of water vapor that is in the air compared to the amount needed to be saturated (100% RH). When RH is low, moisture can be removed from the vegetation at a high rate creating drier vegetation conditions that burn easily and at a faster rate. Fuels (wildland) are categorized by the amount of time (time lag) it takes them to adjust the plant moisture level to the atmospheric level (63% of the difference) in one-hour, ten-hour, hundred-hour, and thousand-hour fuels. One- and ten-hour fuels have the most impact on the flaming front (active burning) of wildland fires in grass/brush fuels. For example, a grass fuel (one-hour) could be at a very high level of fuel moisture (90%) due to overnight fog. When the sun comes up, and the fog burns off or a dry air mass moves into the area, if the RH where to drop to 20, then in the first hour, the fuel moisture would move from 90% to 45% (63% of the difference between 90% moisture in the fuel and 20% moisture in the air) in the first hour and down to 30% by the end of the second hour and 24% by the end of the third hour. Each time moving 63% of the difference between the fuel moisture and the air moisture.

Humidity varies with temperature (generally, when temperature increases, humidity decreases, and vice versa). Humidity is important because it affects fuel moisture content and therefore, the fuel's combustibility. This is the reason that hot, dry Santa Ana wind conditions tend to create Fire Weather and increase the level of risk as they continue to impact the fuels for serval days, weeks, or months in the dry season for southern California. Hot, dry, and windy are a bad combination.

Wind

The wind is the most obvious factor in creating Extreme Fire Behavior. While Extreme Fire Behavior is possible without extreme wind, such as fuel- driven, plume-dominated wildfire, they are often found together. The Station Fire in southern California in 2009, was a prime example of fuel and low relative humidity-driven fire, with much of the fire growth occurring in the absence of significant winds (The Station Fire: An Example of a Large Wildfire in the Absence of Significant Winds (weather.gov)). This was not what is normally seen in the recent history of fires in California, but prolonged drought, bug kill and other factors which are increasing the amount of dead fuels in the wildlands are making these types of fires more common than they were in recent history. The wind is normally one of the prime factors. The reason for this is that, in fine fuels like grasses, wind can accelerate the fire to the maximum flame length and Rate of Spread (ROS) with little wind compared to the wind speeds that are possible under fire weather conditions.

One method of illustrating this fact is to show grass wildland fuels (dry climate) at various wind speeds and look for the point at which the fire from a specific fuel reaches its maximum energy output (all fuel consumed; no additional fuel to burn). Using the BehavePlus software from the U.S. Forest Service to complete the comparison, an extreme moisture scenario was used (3% for one-hour fuels, 4% for ten-hour fuels, 5% for 100-hour fuels, 30% for live herbaceous fuels and 50% for live woody fuels) for the fuel moisture levels in the time lag dead and live fuels. Three

dry climate grass fuels were used (GR1, GR2. GR4), which are the fuels normally found in most of California for grasses. The results (Figure 13) indicate that the GR1 fuel reaches the maximum flame length and ROS at 5 mph (midflame wind speed), while the GR2 fuel reaches maximums at 13 mph and the GR4 at 25 mph. For this example, the 20-foot winds are two times the midflame wind speed. 20-foot winds are defined as sustained winds averaged over a 10-minute period and measured 20 feet above the average height of nearby vegetation. (This is the standard reported by the Remote Automated Weather Stations (RAWS) owned by land management agencies and used in the National Fire Danger Rating System (NFDRS)). Using the 20-foot winds at two times the midflame wind speed allows for the perspective of how little wind is needed on a flat plain. When the slope is added, the GR1 is at maximum without wind, the GR2 drops to 9 mph and the GR4 drops to 22 mph. Figure 13 provides the output from the Behave modeling for this example.

The regional area around the Project Site has one Remote Access Weather Station or RAWS

Max ROS

Head Fire

Surface Fire Flame Length (ft)

Midflame Wind Speed	Fuel Model		
mi/h	gr1	gr2	gr4
0	0.6	1.4	2.7
5	2.6	6.3	11.8
10	2.6	9.9	18.6
11	2.6	10.6	19.8
12	2.6	11.2	21.0
13	2.6	11.6	22.1
14	2.6	11.6	23.2
15	2.6	11.6	24.3
16	2.6	11.6	25.4
17	2.6	11.6	26.4
18	2.6	11.6	27.4
19	2.6	11.6	28.5
20	2.6	11.6	29.4
21	2.6	11.6	30.4
22	2.6	11.6	31.4
23	2.6	11.6	32.3
24	2.6	11.6	33.2
25	2.6	11.6	33.7
26	2.6	11.6	33.7

Max ROS with 100% slope

Head Fire

Surface Fire Flame Length (ft)

Midflame Wind Speed	Fuel Model		
mi/h	gr1	gr2	gr4
0	2.6	7.6	14.3
4	2.6	9.1	17.0
5	2.6	9.6	17.9
6	2.6	10.1	18.9
7	2.6	10.6	19.8
8	2.6	11.1	20.8
9	2.6	11.6	21.8
10	2.6	11.6	22.7
11	2.6	11.6	23.7
12	2.6	11.6	24.7
13	2.6	11.6	25.6
14	2.6	11.6	26.6
15	2.6	11.6	27.5
16	2.6	11.6	28.4
17	2.6	11.6	29.3
18	2.6	11.6	30.2
19	2.6	11.6	31.1
20	2.6	11.6	32.0
21	2.6	11.6	32.9
23	2.6	11.6	33.7
24	2.6	11.6	33.7
25	2.6	11.6	33.7
26	2.6	11.6	33.7

Figure 13 - BehavePlus Outputs for Rate of Spread in dry climate grass fuels

(BENC1) which is monitored/ maintained by a governmental agency to measure, record, and transmit Fire Weather data on a routine basis over extended periods of time. Most of these RAWS sites have been in place for many years, if not decades. These sites are good for establishing the long-term wind (speed, direction, and gusts), temperature, and RH.

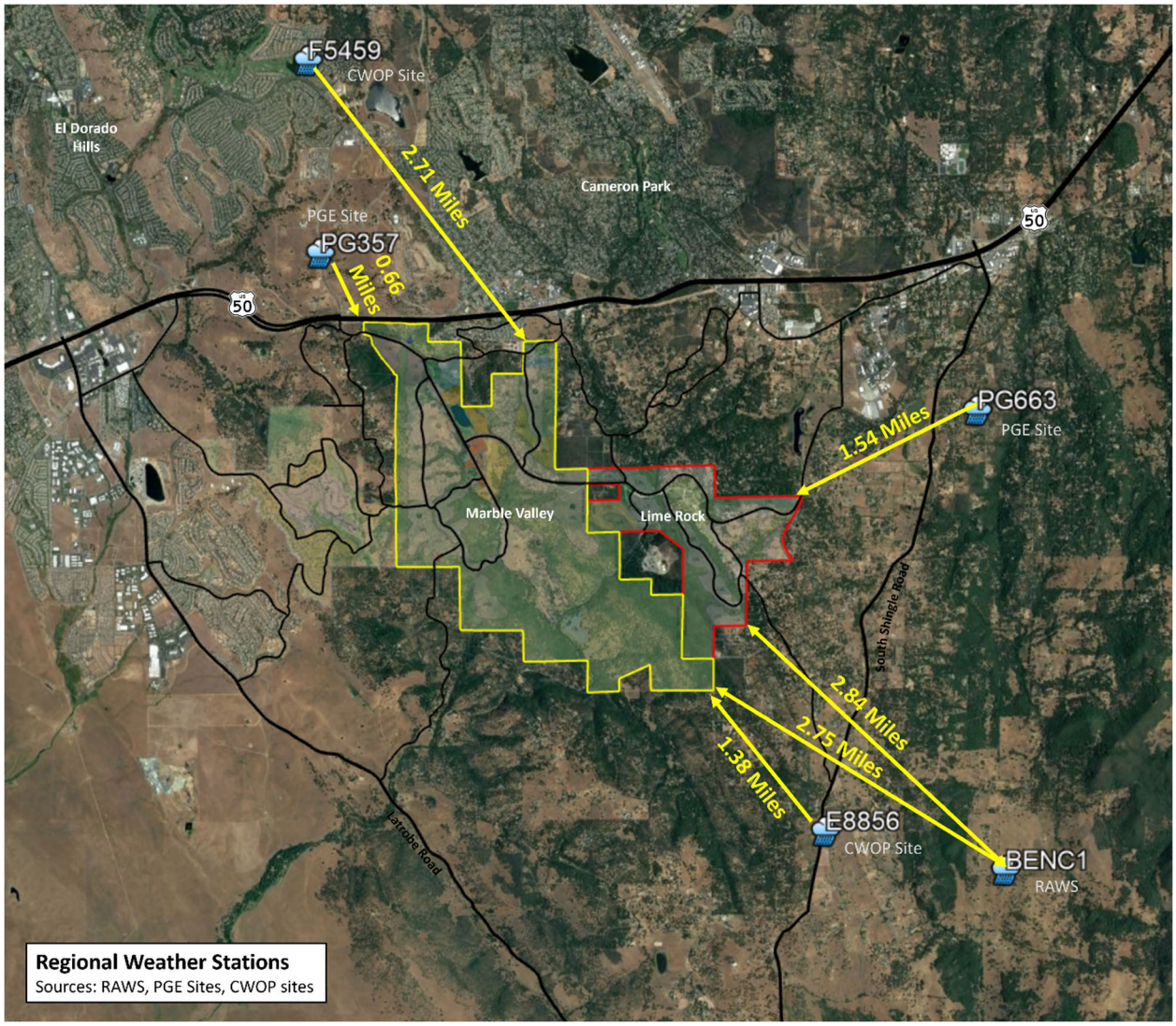


Figure 14 – Location map for location weather collection sites

The Ben Bolt RAWS is located to the southeast of the Project Site. The RAWS is approximately 2.75 miles to the SE from the southern boundary of the Project Site. The location for Ben Bolt is provided in Figure 14, as well as four additional weather data locations around the Project Site, two of which are weather stations maintained and monitored by Pacific Gas and Electric (PGE) as part of the company's Wildland Fire Safety program and two private weather stations which are part of the Citizen Weather Observing Program (CWOP) sponsored by the National Weather Service. The company (PGE) uses data to make decisions on Public Safety Power Shutoff (PSPS) actions. The data is available to safety personnel and the general public in nearly "real-time." Most of these PGE sites are mounted on utility poles owned by the company.

The RAWS site data has over 20 years of recent data, while the PGE sites have all come online within the past 4 years, and some in the area have been installed in the past year (those have not been used here). The data from the RAWS sites shows a consistent pattern of winds from the south to west and from the north to northeast, with the stronger winds originating from the S/SW (Figure 15). The data tables for the RAWS site are in Figure 16.

The data summaries in Figure 16 are derived from over 179,000 data points over 20+ years, with maximum/minimum summaries encapsulating the data for recordation by the hour. The green highlighted areas of the summary show the flow toward the mountains, and the light red the flow from the mountains into the central valley. The two highest wind measurements occurred from the S and SE, but the predominant flow is from the N to NE (34.5% of the time) and S to WSW (34.9% of the time). It should be noted that only 182 hourly reports out of 179,528 (0.101%) have wind gust speed that exceeds 40 mph. Wind gusts exceeding 30 mph do not amount to 1% of the wind data observations. The 99th percentile for wind gusts in this data base is 27 mph.

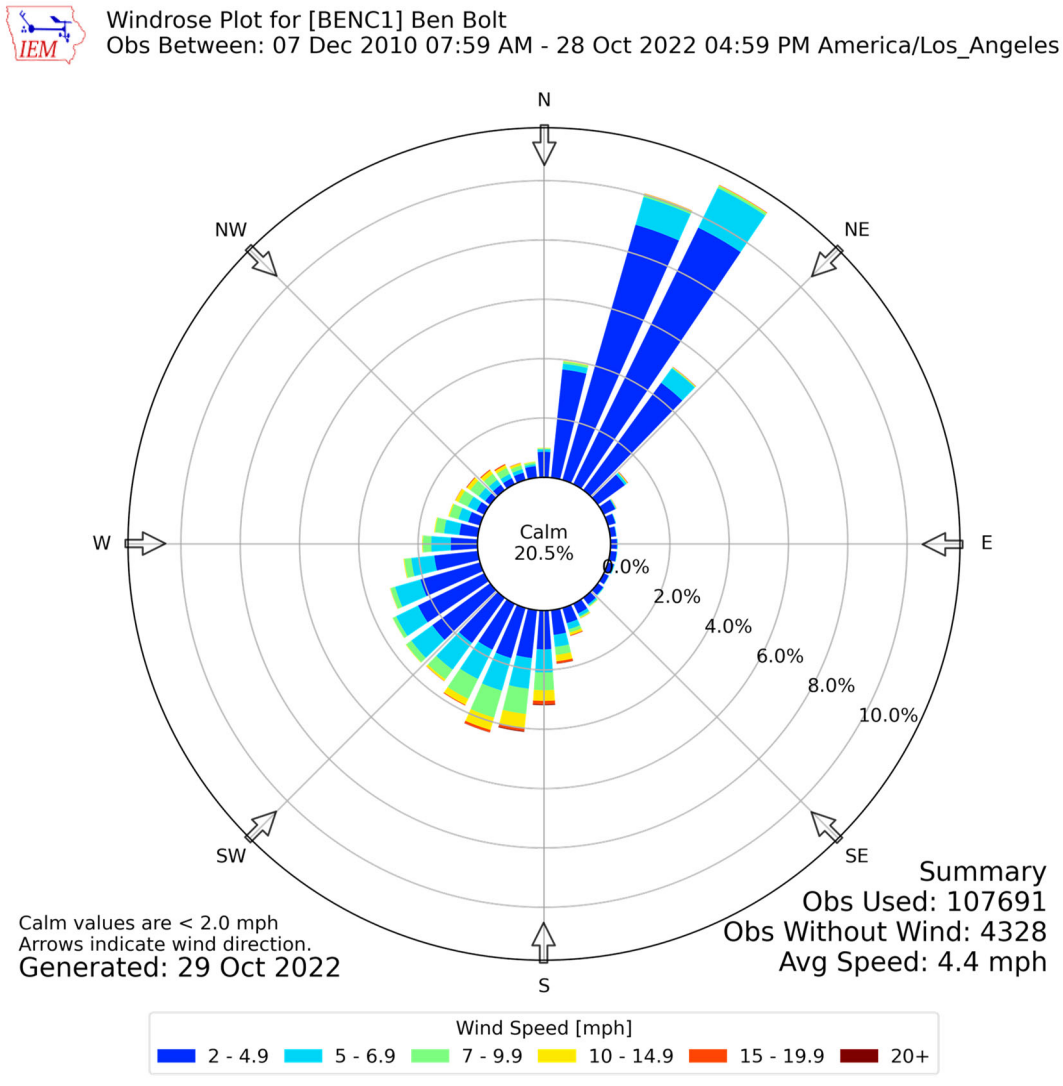


Figure 15 - Output data/graphics for RAWS locations (Ben Bolt)

Ben Bolt RAWS 2002 to 2022

BENC1			Wind Gust (mph)						
	Count	Cardinal	<20	>20	>30	>40	>50	>60	>70
7.2%	12,992	N	12,801	191	16	-	-	-	-
21.0%	37,774	NNE	37,624	150	34	5	-	-	-
6.2%	11,172	NE	11,073	99	36	8	-	-	-
1.3%	2,301	ENE	2,272	29	4	1	-	-	-
1.2%	2,119	E	2,094	25	2	1	-	-	-
1.2%	2,146	ESE	2,102	44	13	3	-	-	-
2.0%	3,541	SE	3,295	246	75	26	2	1	-
3.9%	7,053	SSE	6,203	850	214	44	3	-	-
9.0%	16,224	S	14,570	1,654	367	70	9	1	-
9.5%	17,117	SSW	15,942	1,175	152	18	1	-	-
9.0%	16,224	SW	15,722	502	53	6	-	-	-
7.3%	13,069	WSW	12,864	205	24	-	-	-	-
5.1%	9,086	W	8,893	193	11	-	-	-	-
3.2%	5,732	WNW	5,442	290	20	-	-	-	-
3.7%	6,659	NW	5,999	660	93	-	-	-	-
7.1%	12,779	NNW	12,236	543	82	-	-	-	-
2.0%	3,540	Null	-	-	-	-	-	-	-
100.0%	179,528		169,132	6,856	1,196	182	15	2	-
			94.2%	3.8%	0.7%	0.1%	0.0%	0.0%	0.0%

Wind Direction

N	12,992	7.2%
NNE	37,774	21.0%
NE	11,172	6.2%
ENE	2,301	1.3%
E	2,119	1.2%
ESE	2,146	1.2%
SE	3,541	2.0%
SSE	7,053	3.9%
S	16,224	9.0%
SSW	17,117	9.5%
SW	16,224	9.0%
WSW	13,069	7.3%
W	9,086	5.1%
WNW	5,732	3.2%
NW	6,659	3.7%
NNW	12,779	7.1%
0	-	0.0%
Blank	3,540	2.0%
	179,528	100.0%

	Wind		Gust	
Greater than				
60			2	0.001%
50	-	0.000%	15	0.008%
45	1	0.001%	50	0.028%
40	1	0.001%	182	0.101%
30	8	0.004%	1,196	0.666%
20	304	0.169%	6,856	3.819%
10	8,237	4.588%	63,806	35.541%
0	179,528		179,528	

10/29/2022 Begin
1/1/2002 End
7606 days
20.8 years

179,528.0 Data points

	Temp	RH	Wind	Gust
Min	22.0	3.0	0.0	0.0
Max	117	100	50.0	64.0
Avg	60.9	61.1	4.3	9.0
3rd	36	16.0	3.0	0.0
99th	101.0	100	27.0	27.0

Figure 16 – Ben Bolt RAWS Data Summary

Four additional weather data collection points have been used around the Project Site. The two PGE sites (PG663 and PG357) have databases for the past 2.5+ years, with both going into service in the spring of 2020. Each has about 130,000 data points. These sites have direct readings every six minutes (10 times per hour), whereas the RAWS had hourly summaries. The lowest/highest values are not any different, but the depth of the data is greater with respect to the wind direction and duration of a particular data value.

PGE monitors the weather sites 24/7 in an effort to provide data for planning and protecting communities from wildfires and assist in the prediction of fire-prone weather and assist in the prevention of wildfires where possible. One method they use is the Public Safety Power Shutoff (PSPS) forecast and implementation program. This is designed to reduce or eliminate possible wildfire sources from the electric grid during times of high risk.

Access to PGE's interactive weather and fire-detection satellite maps allows local fire officials and the general public the ability to review the weather in the local area so that they can be better prepared. This same data provides a historical view of past fire-prone weather which is very useful to the assessment of future risk. Data from the two sites is provided in Figure 17.

PG663

	Temp	RH	Wind	Direction	Gusts
Min	27.8	6.7	0.0	0.0	0.0
Max	111.5	99.6	16.5	360.0	39.2
Average	65.4	48.0	2.5		5.5
3rd	41.0	16.0	0.0		0.0
97th	93.5	96.5	5.61		12.78
>0	132,632	132,631	126,468		126,821

Temp 100+: 912 (0.69%) | HR < 10: 237 (0.18%) | Wind > 10: 252 (0.20%) | Gust >25: 103 (0.08%)

Greater than	Wind		Gust	
70	-		-	
60	-		-	
50	-		-	
45	-		-	
40	-		-	
30	-		29	0.02%
20	-		473	0.36%
10	252	0.2%	14,064	10.60%
0	132,523	100%	132,632	100%

4/17/2020 Begin
10/29/2022 End
925 days
2.5 Years
132,632 Data points

PG663	Count	Cardinal	Wind Gust (mph) <20	>=20	>30	>40	>50
7.3%	9,733	N	9,721	12	-	-	-
7.7%	10,195	NNE	10,180	15	-	-	-
2.5%	3,300	NE	3,287	13	-	-	-
1.9%	2,512	ENE	2,469	43	3	-	-
1.5%	2,040	E	2,033	7	-	-	-
2.4%	3,234	ESE	3,232	2	-	-	-
5.1%	6,767	SE	6,745	22	2	-	-
8.4%	11,188	SSE	10,967	221	19	-	-
7.7%	10,204	S	10,105	99	5	-	-
6.9%	9,107	SSW	9,087	20	-	-	-
8.4%	11,080	SW	11,071	9	-	-	-
9.9%	13,171	WSW	13,167	4	-	-	-
8.4%	11,096	W	11,096	-	-	-	-
6.8%	8,966	WNW	8,966	-	-	-	-
5.2%	6,912	NW	6,910	2	-	-	-
5.3%	7,068	NNW	7,064	4	-	-	-
4.6%	6,059	Null	6,059				
100.0%	132,632		132,159	473	29	-	-
			99.6%	0.4%	0.0%	0.0%	0.0%

PG357

	Temp	RH	Wind	Gust
Min	28.9	6.6	0	0
Max	109.8	99.9	28.2	48
Avg	64.8	52.0	4.9	8.2
3rd	41	18	0	2
97th	93	99	11	18
>0	130,454	130,452	129,931	130,092

Temp 100+: 698 (0.54%) | HR < 15: 1,627 (1.25%) | Wind > 15: 887 (0.68%) | Gust >25: 746 (0.57%)

Greater than	Wind		Gust	
70	-		-	
60	-		-	
50	-		-	
45	-	0.000%	5	0.01%
40	-	0.00%	20	0.02%
30	-	0.0%	227	0.18%
20	103	0.1%	2,486	1.91%
10	7,288	5.6%	39,938	30.60%
0	130,454	100%	130,452	100%

5/4/2022 Begin
10/29/2020 End
908 days
2.5 years
130,454 Data points

PG357	Count	Cardinal	Wind Gust (mph) <20	>=20	>30	>40	>50
3.9%	5,053	N	4,989	64	3	-	-
3.4%	4,463	NNE	4,419	44	2	-	-
5.0%	6,584	NE	6,555	29	4	-	-
4.6%	5,988	ENE	5,981	7	-	-	-
8.1%	10,614	E	10,607	7	-	-	-
15.1%	19,744	ESE	19,641	103	9	-	-
9.5%	12,454	SE	11,845	609	147	15	-
5.0%	6,470	SSE	6,218	252	41	5	-
6.1%	7,996	S	7,811	185	2	-	-
9.1%	11,858	SSW	11,718	140	-	-	-
8.6%	11,258	SW	11,238	20	2	-	-
6.5%	8,475	WSW	8,468	5	-	-	-
2.8%	3,599	W	3,583	16	-	-	-
5.1%	6,695	WNW	6,404	291	2	-	-
4.3%	5,561	NW	4,947	614	9	-	-
2.5%	3,234	NNW	3,134	100	6	-	-
0.3%	408	Null	408				
100.0%	130,454		127,966	2,486	227	20	-
			98.1%	1.9%	0.2%	0.02%	0.0%

Figure 17 – PGE Sites Weather Data

Data from the PGE sites is more localized and provides a view at a more micro level than the RAWS site. The wind directions, wind speeds, relative humidity, and temperatures are similar and within the overall parameters of the RAWS dataset extremes.

The last two sites are private weather stations that are a part of the CWOP. CWOP runs data checking and analysis on its site to increase the quality of the data. These sites (E8856 and F5459) are located 2.71 miles to the NNW (F5459) and 1.38 miles to the SSE (E8856) of the Project Site boundary. The data from these sites are within the expected values but it should be noted that in these datasets, over 40% of the values are "null" (missing or blank).

These databases, used as a primary source, would be suspect due to the null values, but as an accessory source, utilized to find data outside of the primary site data, they have value. Both sites have data beyond the PGE data windows. F5459 has 175,791 data points over a 3.42-year period (5/19 to 10/22). E8856 has 675,262 datapoints over a 6.6-year period (3/16 to 10/22). Even with the null values, the amount of data present is significant. The data summaries are provided in Figure 18.

F5459

	Temp	RH	Wind	Direction	Gust
Min	29	9	0	0	0
Max	113	100	17	338	42
Average	64	56	1	193	4
3rd	40	23	-	67	
97th	94	95	5	338	
>0	175,690	175,690	101,599	101,055	151,779

5/28/2019	Begin
10/28/2022	End
1,249.00	Days
3.42	Years
175791	Data points

temp 100+	HR < 15	Wind > 10	Gust >25
1,265	274	300	117
0.72%	0.16%	0.30%	0.08%

Greater than	Wind		Gust	
60	-		-	
50	-		-	
45	-		-	
40	-		1	0.0007%
30	-		22	0.014%
20	-	0.00%	441	0.29%
10	300	0.3%	6,284	4.14%
0	101,599	100%	151,779	100%

F5459 — Wind Gust (mph)

	Count	Cardinal	<20	>=20	>30	>40	>50
0.3%	544	N	544	-	-	-	-
0.1%	126	NNE	126	-	-	-	-
0.8%	1,371	NE	1,371	-	-	-	-
3.7%	6,485	ENE	6,484	1	-	-	-
4.6%	8,171	E	8,171	-	-	-	-
1.1%	1,925	ESE	1,922	3	-	-	-
3.1%	5,464	SE	5,362	102	4	1	-
10.0%	17,598	SSE	17,230	368	17	-	-
7.0%	12,314	S	12,266	48	1	-	-
2.1%	3,633	SSW	3,628	5	-	-	-
9.2%	16,155	SW	16,150	5	-	-	-
4.4%	7,749	WSW	7,749	-	-	-	-
2.6%	4,633	W	4,632	-	-	-	-
3.0%	5,322	WNW	5,322	-	-	-	-
2.5%	4,435	NW	4,433	2	-	-	-
3.2%	5,674	NNW	5,650	24	-	-	-
42.2%	74,192	Null	74,192	-	-	-	-
100.0%	175,791		175,232	558	22	1	-
			99.7%	0.3%	0.0%	0.0%	0.0%

E8856

	Temp	RH	Wind	Direction	Gust
Min	28	7	0	1	0
Max	115	100	29	359	49
Average	63.1	57.3	2	177	5
3rd	40	19	0	40	0
97th	94	96	8	327	15
>0	675,262	675,262	398,687	94,668	460,038

3/7/16	Begin
10/28/22	End
2426	days
6.6	years
675,262	Data points

Temp 100+	HR < 15	Wind > 10	Gust >25
5,917	4,478	9,537	2,892
0.88%	0.66%	2.39%	0.63%

Greater than	Wind		Gust	
60			-	
50	-		-	
45	-		2	0.0003%
40	-		39	0.01%
30	-		963	0.1%
20	335	0.05%	7,143	1.1%
10	9,537	1.4%	79,358	11.8%
0	675,262	100%	675,266	100%

E8856 — Wind Gust (mph)

	Count	Cardinal	<20	>=20	>30	>40	>50
1.1%	7,108	N	7,016	92	-	-	-
0.8%	5,326	NNE	5,209	117	4	-	-
0.8%	5,342	NE	5,298	44	-	-	-
2.9%	19,751	ENE	19,733	18	4	-	-
3.8%	25,894	E	25,889	5	-	-	-
3.1%	21,269	ESE	20,584	685	104	12	-
5.6%	37,592	SE	33,558	4,034	687	23	-
4.8%	32,304	SSE	29,992	2,312	148	4	-
4.5%	30,207	S	29,763	444	11	-	-
4.5%	30,188	SSW	30,076	112	3	-	-
6.0%	40,398	SW	40,317	81	2	-	-
8.1%	54,597	WSW	54,525	72	-	-	-
5.9%	39,618	W	39,558	60	-	-	-
3.3%	22,364	WNW	21,992	372	-	-	-
2.8%	19,125	NW	18,829	296	-	-	-
1.1%	7,604	NNW	7,581	23	-	-	-
41.0%	276,575	Null	276,575	-	-	-	-
100.0%	675,262		666,495	8,767	963	39	-
			98.7%	1.3%	0.1%	0.0%	0.0%

Figure 18 – CWOP Sites weather data

From a fire modeling perspective, wind (speed and direction), relative humidity, and temperature, (to a lesser degree) are important elements. These output factors are combined for all the weather sites in Figure 19. The maximum values (minimum for RH) are provided along with the values for the 3rd and 99th percentile of the dataset. The RAWS site has the max/min values for all of the datasets. Modeling assumptions have been derived from this data. The maximum wind value is a 64-mph wind gust, the highest temperature was 117 degrees F., the lowest RH was 3%, and the predominant direction is from the N to NE (34.5% of the time) and S to WSW (34.9% of the time).

For this report, the minimum fuel moisture for 1-hr fuels will be 3% based on the RH values shown in Figure 19, as found at the referenced site. Wind assumptions, based on the values in Figure 19, will be modeled at sixteen locations with one or more wind directions from:

SW at 65/50/40/30	ENE at 50
SSW at 65/50	NE at 50
S at 50	N at 50
SSE at 50	WNW at 50
ESE at 50	WSW at 50
E at 50	W at 50

	Temp	RH	Wind	Gust		
BENC1	22	3	0	0	20.8 years	
Max	117	100	50	64	179,528	Data points
Avg	60.9	61.1	4.3	9	1/1/2002	Begin
3rd	36	16	3	0	10/29/2022	End
99th	101	100	27	27		

F5459	Temp	RH	Wind	Gust		
Min	29	9	0	0	3.4 years	
Max	113	100	17	42	175,791	Data points
Average	64	56	1	4	5/28/2019	Begin
3rd	40	23	-		10/28/2022	End
97th	94	95	5			

E8856	Temp	RH	Wind	Gust		
Min	28	7	0	0	6.6 years	
Max	115	100	29	49	675,262	Data points
Average	63.1	57.3	2	5	3/7/2016	Begin
3rd	40	19	0	0	10/28/2022	End
97th	94	96	8	15		

PG357	Temp	RH	Wind	Gust		
Min	28.9	6.6	0	0	2.5 years	
Max	109.8	99.9	28.2	48	130,454	Data points
Avg	64.8	52	4.9	8.2	5/4/2020	Begin
3rd	41	18	0	2	10/29/2022	End
97th	93	99	11	18		

PG663	Temp	RH	Wind	Gusts		
Min	27.8	6.7	0	0	2.5 years	
Max	111.5	99.6	16.5	39.2	132,632	Data points
Average	65.4	48	2.5	5.5	4/17/2020	Begin
3rd	41	16	0	0	10/29/2022	End
97th	93.5	96.5	5.61	12.78		

Figure 19 - Weather Data Summaries for All locations

Intensity

The intensity of a wildfire is measured in the energy release expected from the flaming front of the fire (active burning). Intensity is greatly affected by topography, weather, and the amount of fuel available to burn. For example, a brush fire in heavy chaparral in a steep canyon can produce a greater wildfire intensity than short grass fuels on flat ground. Wildfire intensity is measured in units of heat transfer per length of the fire edge within the fire modeling community but is more often expressed in terms of flame length for easier understanding in training and discussion with those who fight fires and those who must live with the potential of wildland fires.

Fire intensity is the primary wildfire characteristic related to potential fire effects. Typically, the greater the intensity, the greater the loss, but this is not always the case. (USDA Forest Service Gen. Tech. Rep. RMRS-GTR-315. 2013, page 5)

> The factors affecting wildfire intensity include the elements of the fire behavior triangle (fuel, weather, and topography) as well as spread direction (heading, flanking, backing, etc.). At a basic level, wildfire intensity can be assessed for a point, stand, or landscape without consideration of fire spread by assuming that a fire occurs at the given location(s) under specific weather, fuel moisture, and fire spread parameters (heading, flanking, or backing). Typically, this is assessed as

> the near-maximum potential (for example, heading fire under 97th percentile fuel moisture and wind conditions).
>
> There may be a very low probability of a wildfire occurring under these conditions in any particular area, but nevertheless, this level of assessment provides useful information about the potential wildfire behavior that different areas of a landscape are capable of producing. At the landscape scale, this type of wildfire hazard assessment may also be used to identify where on a landscape there is the potential to meet or exceed specific wildfire behavior thresholds, thus aiding the identification and prioritization of management opportunities. (USDA Forest Service Gen. Tech. Rep. RMRS-GTR-315. 2013, pages 7-8)

In order to assess potential intensity, it is necessary to examine the fuels, topography, and configuration in order to accurately assess both the hazard and the risk to the adjacent areas. The topography includes elevation, slope, aspect, and features, such as canyons, valleys, or rivers.

Fuels (wildland and built)

Wildland fuels on and near the Project Site consist mainly of grass, shrubs, and open canopy treed vegetation cover as indicated in Figure 5. Figure 20 provides an illustration of the wildland fuels on and near the Project Site. The fuels are classified by number in categories as listed in the legend.

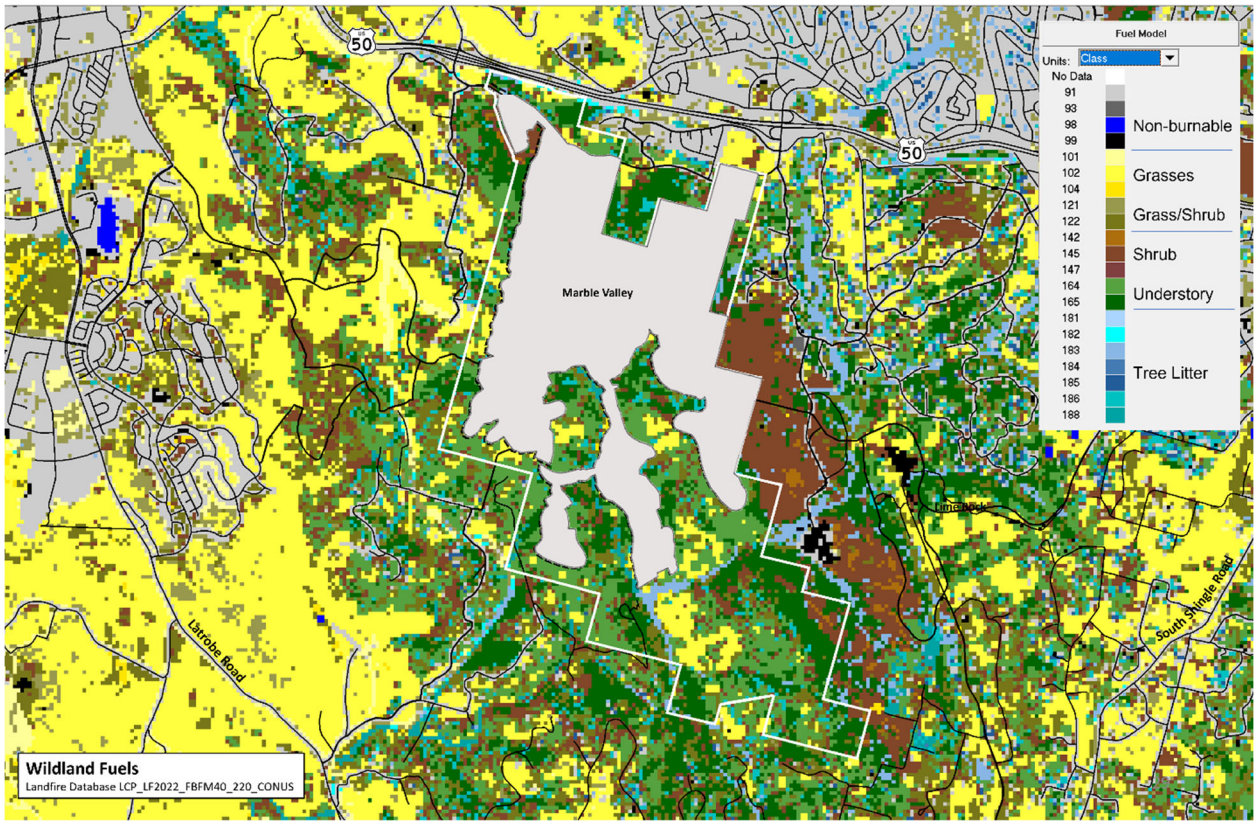


Figure 20 – Wildland Fuels Map

In each category, the amount of fuel is generally greater as the number increases. Grass fuel 101 has less combustible fuel available than grass fuel 102. The 100's are grasses, the 120's are grass/shrub mixtures, the 140's are shrub fuels, the 160's are understory fuels, and the 180's are tree litter fuels. These all apply to surface fuels (within 6' of the ground), as canopy fuels are dealt with separately in other modeling modules. The Project Site (shown here with the Marble Valley development area shaded) is mostly grass and grass/shrub fuels with some areas of shrub-only fuel. Canopy fuels are not predominant. Fuels are assessed in 30-meter grids, with the predominant fuel type within the grid representing the entire grid.

The Marble Valley Project Site consists of a valley approximately two miles wide (east to west) by four miles long (north to south). Elevations on-site range from approximately 700 to 1,200 feet above mean sea level. Marble Creek flows from north to south through the valley and joins Deer Creek near the southern boundary. Deer Creek flows from the northeast to the southwest along the southern boundary.

There are extensive blue oak woodlands and savannahs throughout the valley, and riparian woodlands are found along much of Marble and Deer Creeks (Figure 21 – Vegetation Communities with Development Overlay). Patches of white-leaf manzanita chaparral and annual grassland are also present on-site. The steep terrain is drained by intermittent and ephemeral drainages and seasonal wetland swales. Other aquatic features on the property include seasonal wetlands, seasonal wetland swales, seeps, two quarry ponds, and stock ponds. Rural residences surround the Project. (2012-020 Bio Resources/SS Plant Surveys/ Report/SS Plant Survey Report 3.28.13)

Per the Bio Resources report for the Project Site, large stands of white-leaf manzanita chaparral are present in the northern and eastern portions of the Project site. The chaparral vegetation community is dominated by white-leaf manzanita (Arctostaphylos viscida) and chamise (Adenostoma fasciculatum). Other shrubs frequently occurring in the chaparral include buckbrush (Ceanothus cuneatus), toyon, coyote brush (Baccharis pilularis), western red bud (Cercis occidentalis), and yerba santa (Eriodictyon californicum). The current shrub component of this chaparral is dense, and as such, very few plants are present in the understory. There are, however, large openings in this community that support plant species typical of the annual grassland vegetation community. (2012-020 Bio Resources/SS Plant Surveys/ Report/SS Plant Survey Report 3.28.13)

These findings from the biologist report are in concurrence with wildland fuels found in the Landfire database used for the fire modeling in this report. The majority of the future wildland interface will be woodlands with the exception of the remaining chaparral areas to the east of the Project Site in an undeveloped parcel (some of which is within the Lime Rock development area). The bio report validates the Landfire data at a macro level.

Photos of site wildland fuels are provided on the following pages in Photo 1 through Photo 4. In Appendix A, site photos for all areas are provided.

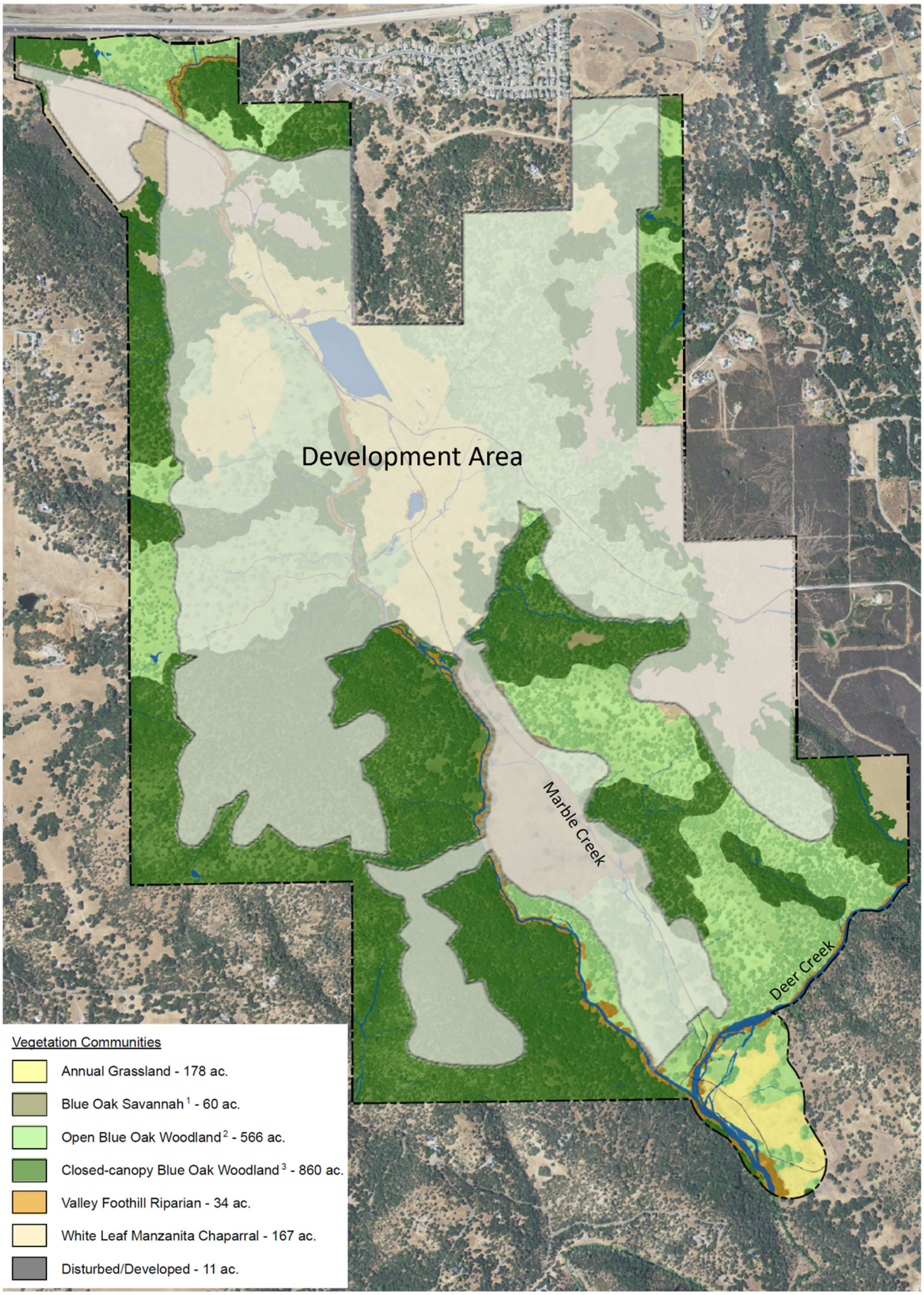


Figure 21 – Vegetation Communities with Development Overlay

Photo 1 -Chaparral Fuels



Photo 2 – Open Canopy Understory Fuels



Photo 3 – Grassland Fuels



Photo 4 – Wildland Tree Litter Fuels



Slope

Slope can influence how a fire will move up or down hills. A fire that ignites at the bottom of a steep slope will spread much more quickly upwards because it can pre-heat the upcoming fuels with rising hot air. The upward drafts are more likely to create spot-fire conditions. In the absence of winds, fires usually move faster uphill than downhill, so the steeper the slope, the faster a fire moves. Wind can overpower the slope factor, but generally, steeper slopes result in more extreme fire behavior. If the slope is below a site, it will have a more significant impact on the site than if the slope is moving up and away from the site.

Slope can be measured in degrees or percentages. A 45-degree angle is a 100% slope because it rises one foot for each linear foot of the slope. Figure 22 provides an illustration of the slopes around the Project Site prior to grading. The slope percentages shown in the graphic are averaged for the 30-meter grid that is displayed for that area. In the graphic one of the possible configurations is provided for reference. The slopes within the development area will be changed during the grading process and, for the most part, will be reduced in steepness or averaged over a larger area. For the purposes of this report, the portions of land in the native interfaces where the wildland fires could be burning are the "area of interest" as they will not be modified and will retain the native fuels.

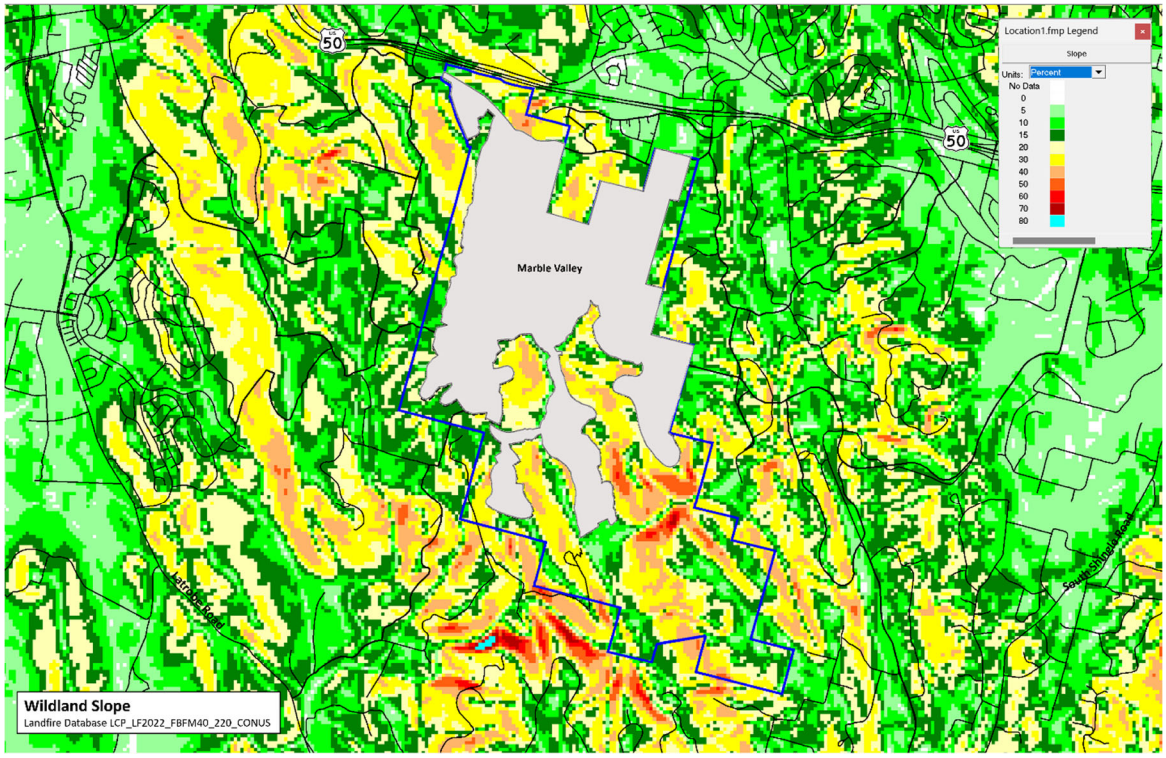


Figure 22 – Slope Map

When averaged over the 30-meter grids, there are no areas with slopes over 50 percent in the interface areas of the Project Site. Manufactured slopes within the development area may be 50 percent or greater in some cases, but they would be in the "managed area" of the development and not in the native areas at the interface. All slopes within the development area which are within 100 feet of a structure will be maintained in accordance with the applicable defensible space standards as required by the California Public Resources Code 4291 by the AHJ.

Aspect and Elevation

Aspect is the compass direction the slope faces. Elevation and aspect can determine how hot and dry a given area will be. Aspect, in particular, often dictates the amount of direct sunlight that wildland fuels will receive in areas where slopes are steep enough to cast shadows. South aspects tend to get more sun than any other aspect, and north aspects, if the slope is significant enough, can be sheltered from the sun's heat and drying effects. This is why, under the right conditions, fuel loading on the northern aspects of some drainages tend to have more fuel. An example from the Project Site is provided in Figure 23.

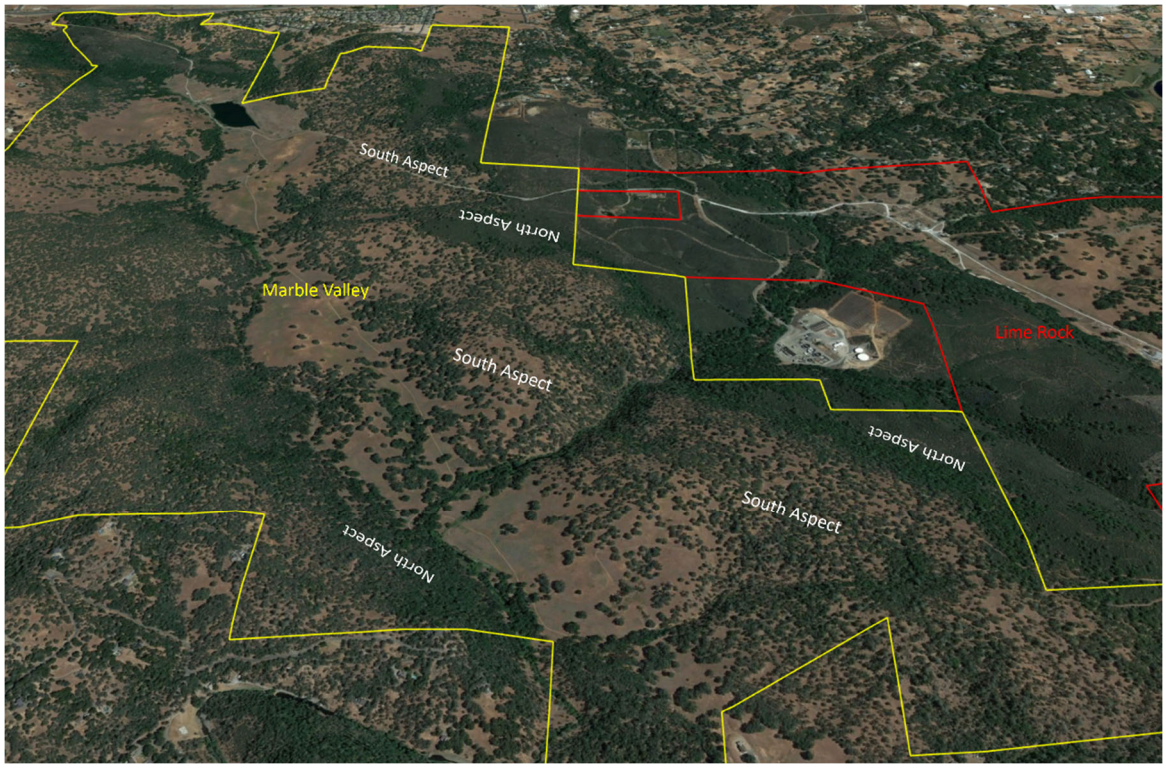


Figure 23 – Aspect Example

The National Wildfire Coordinating Group (NWCG) speaks to the issue of south-facing slopes in the S190 (Introduction to Wildland Fire Behavior) training materials. It states, "In the Northern Hemisphere, the slopes facing south receive direct sun rays and become hotter than the slopes facing any other direction. The higher temperature on the southern exposures results in lower humidity, rapid loss of fuel and soil moisture, and drier, lighter, flashy fuels such as grass. All of these things add together to make southern slopes more susceptible to fires than northern slopes." This statement about northern/southern slopes does not apply to wind-driven fires, only slope and fuel-driven fires. When winds are from the N or NE and align with the heavier fuels on the north slopes, the possibility of extreme wildland fire behavior is increased exponentially. (*S190 - Introduction to Wildland Fire Behavior, Module 2: Principles of Wildland Fire Behavior, Topic 2: Topography, Aspect, p3,* https://training.nwcg.gov/classes/S190/508Files/071231_s190_m2_508.pdf)

The Aspect Map (Figure 24) provides an illustration of how the topography will interact with the Project Site. The Project Site development area is provided in gray for reference. With the

Marble Valley running from north-northwest to south-southeast, the interface aspect is varied and complex. The Elevation Map (Figure 25) indicates how the site rises to the north/east.

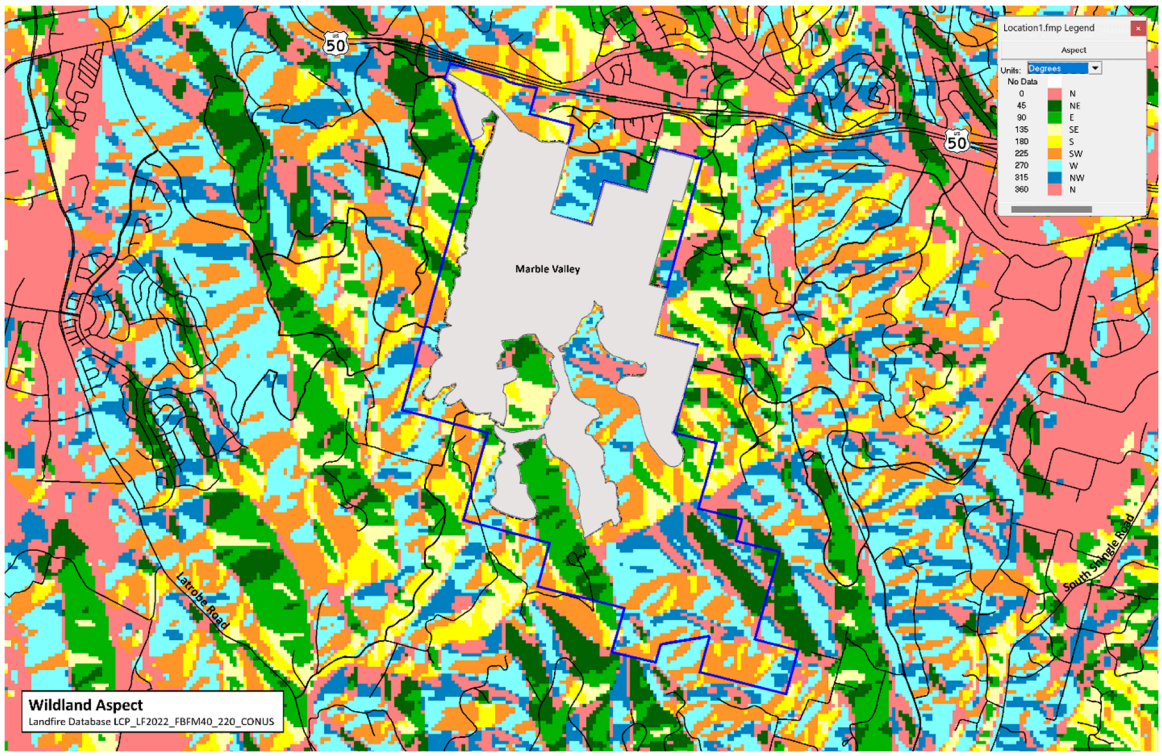


Figure 24 – Aspect Map

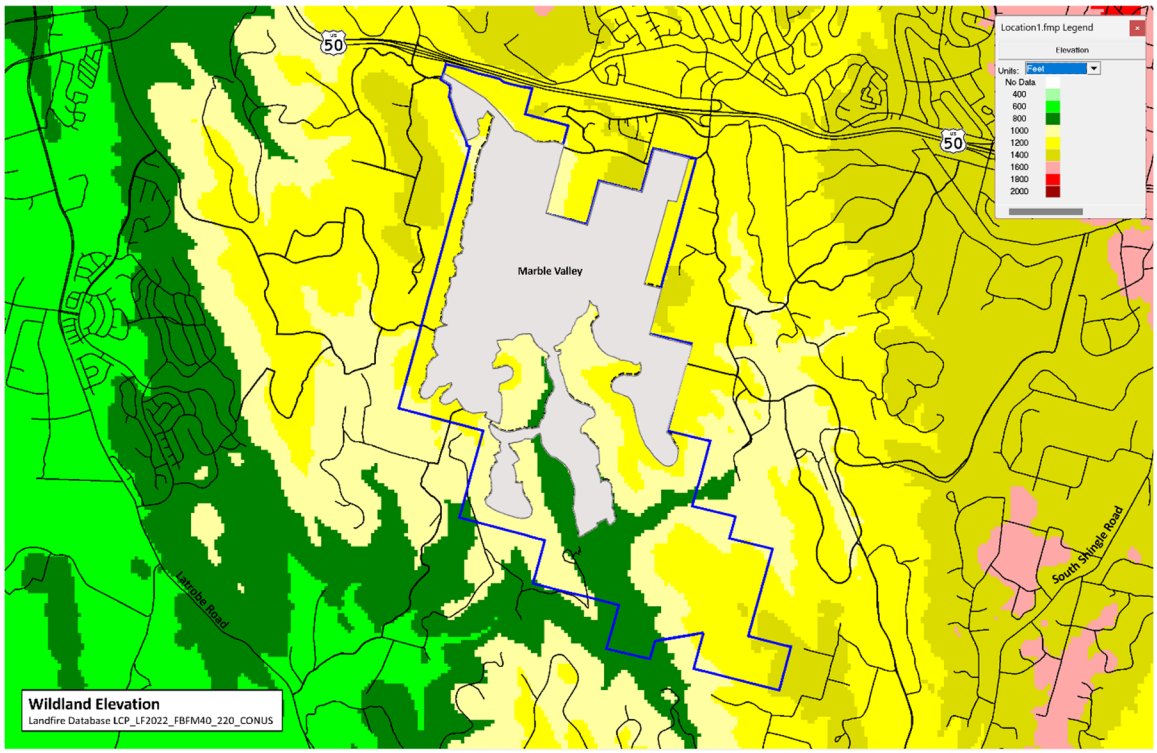


Figure 25 – Elevation Map

Weather

The data from the previously discussed data sites provide the needed assumptions for fire modeling. In addition to the what (data), it is important to understand the why. For the Project Site, the wind has the largest impact on the amount of risk that can be expected from wildland fires. The topography, fuels, and configurations of the interface between the Project Site and the remaining native vegetation are relatively stable (changes are mostly over longer timeframes), whereas weather changes rapidly and often throughout the day, week, months, and seasons.

In the Project Site area, the wind tends to have a large impact on the temperature, relative humidity, fuel moisture, and direction of fire travel. When it comes to wildland fire behavior impacts, winds for the Project Site are driven primarily by two conditions, diurnal flow, and high-pressure areas.

Air moves from high-pressure areas to low-pressure areas. The bigger the difference between the pressures, the faster the air will move from the high to the low pressure. That rush of air is wind. Diurnal flow is created when the land mass heats up (mountains and deserts particularly), creating a low-pressure area (rising air). Cooler air from over the ocean or in the valleys flows to fill these low-pressure areas. To some degree, this occurs every day. Solar heating causes daytime slope/valley winds, and when the night comes, the flow reverses once the air over the ocean/valley is warmer than the air over the mountains. This is depicted in Figure 26 and Figure 27.

Winds caused by high-pressure areas can be extreme, depending on the pressure difference and the topography through which the air flows. Weather fronts and large high-pressure domes can override normal air flow. These winds have various names at different locations around California (as shown in Figure 28). One such event is a high-pressure area to the north/east of the Project Site (often called a high-pressure dome) which sets up air flow from the interior moving toward a low pressure over the ocean. This creates the Diablo and Mono wind events that occur regularly in the central part of California but more often in the fall. Figure 29 illustrates how the flow might occur when the high pressure is east and north of the Project Site.

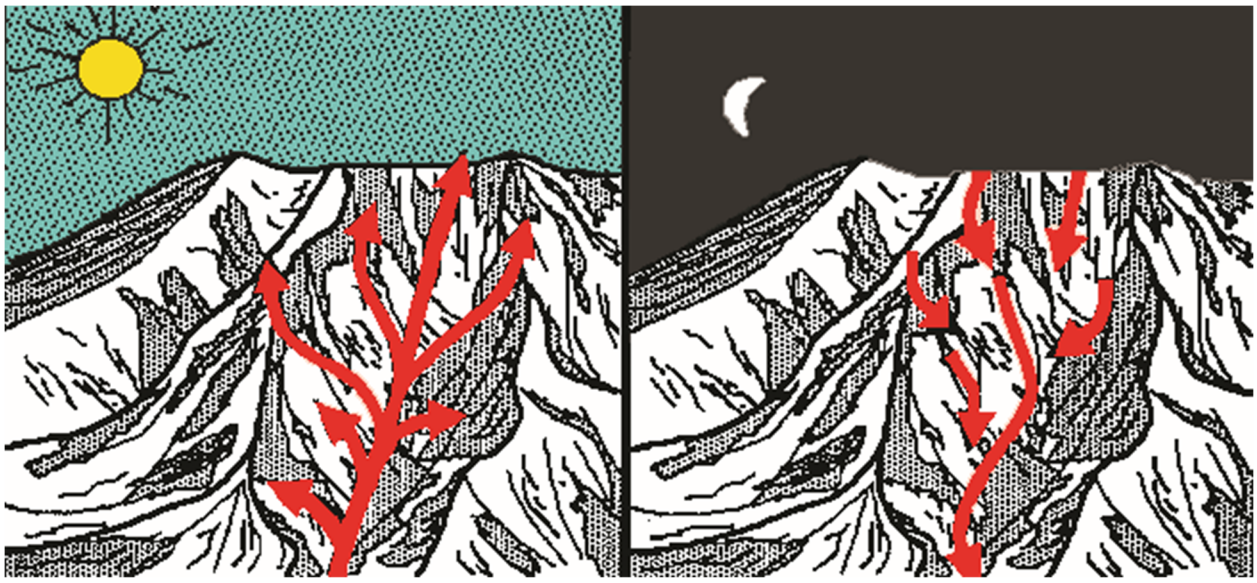


Figure 26 – Valley Winds Flow

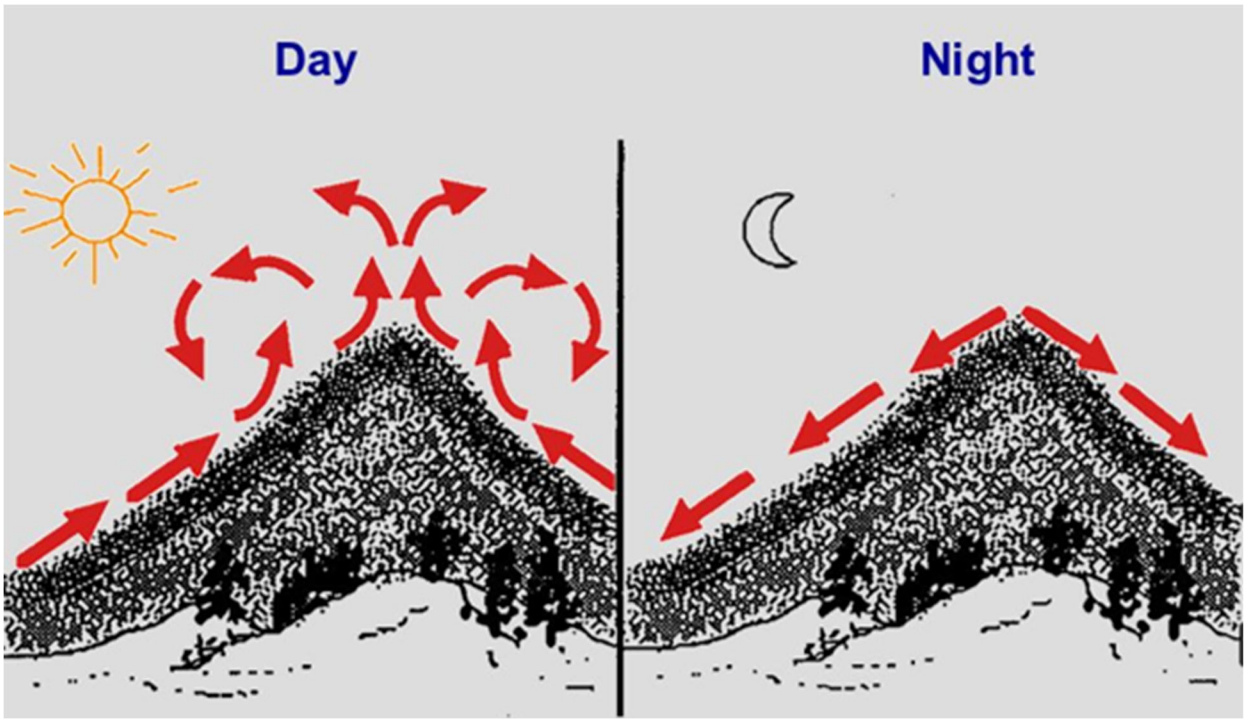


Figure 27 – Slope Winds

Very often, the high pressure moves down the east side of the Sierra Nevada Mountain range. While moving from the north to the south across the high desert area it creates a pressure difference between the sinking dry/cold air in the high-pressure area and the warm rising air over the ocean. The intensity of the wind event is driven by the pressure difference between the high- and low-pressure areas.

Diablo winds tend to warm as they travel across the dry areas to the east (sometimes hot areas). The moisture in the air (RH) can be further reduced by this arid region. The winds are channeled by the topography, and in some cases, the wind speeds are significantly increased by this process. This results in high winds which are hot, dry, and sustained.

At the Project Site, Diablo winds will normally come from the N, NNE, or NE due to the way the air flows through the mountain passes to the north and east of the Project Site.

Most extreme fire behavior in the area around the Project Site occurs during a Diablo wind event. These events dissipate when the high-pressure area moves off to the east or south.

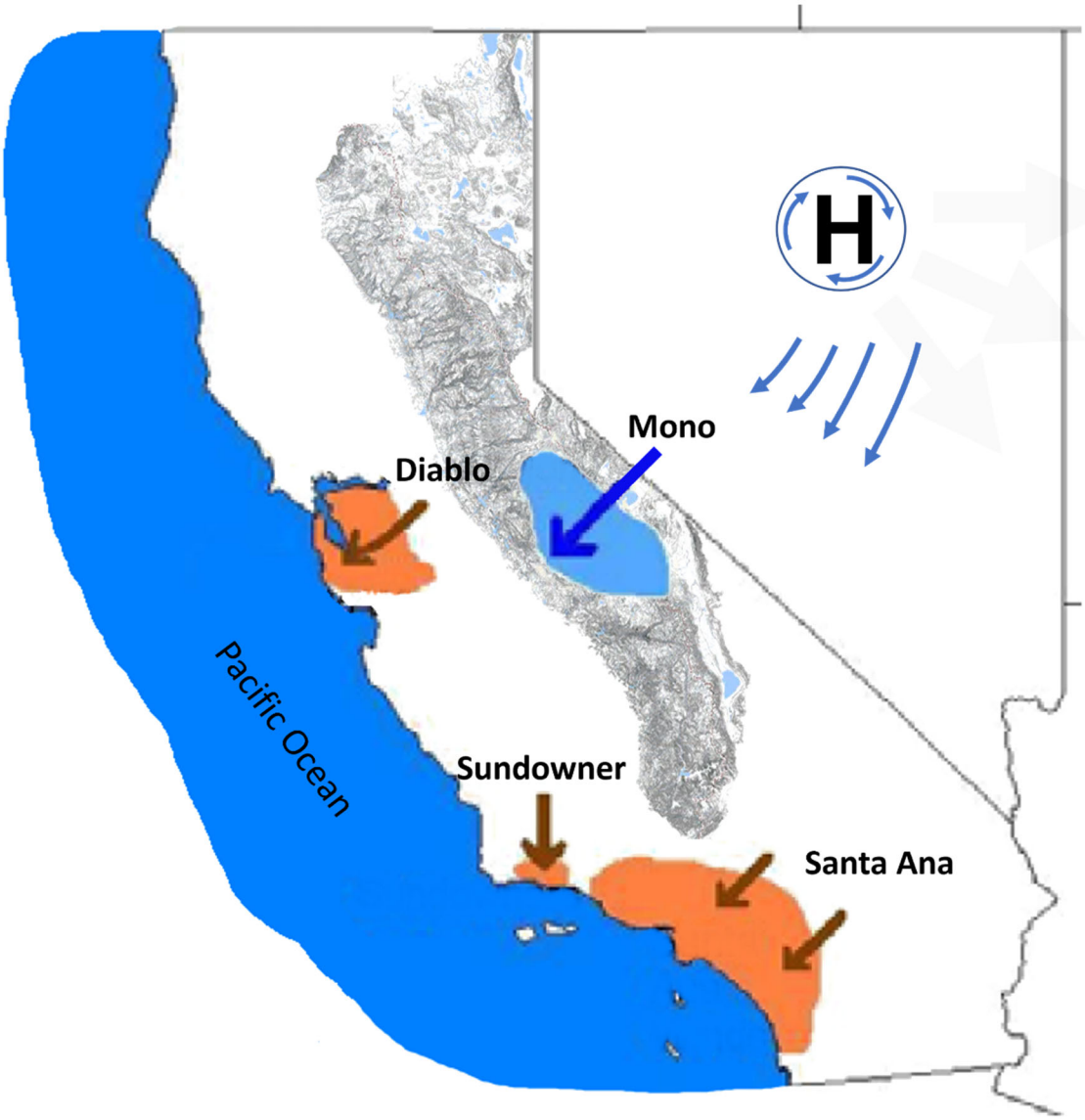


Figure 28 – Foehn Winds in California

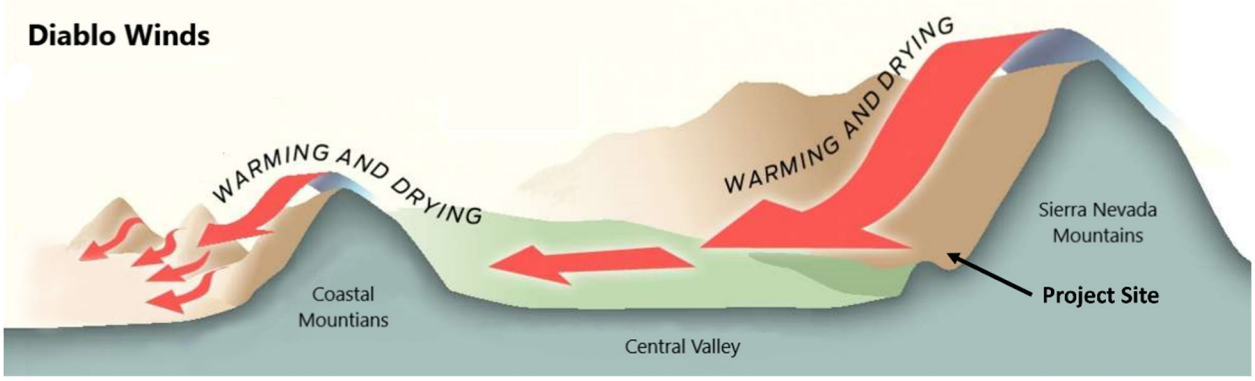


Figure 29 – Diablo Wind Event

Historical

California has a history of extreme fire conditions which are often accompanied by winds from the north and east. These winds are the main cause of large fires developing resulting in the loss of structures and lives in California.

In a research paper published in 2018, entitled "A Surface Observation Based Climatology of Diablo-Like Winds in California's Wine Country and Western Sierra Nevada" the researchers found that Diablo winds occurs not only in the San Francisco Bay area but also in the western Sierra Nevada mountains.

> *During the October 2017 Northern California Firestorm, Diablo winds were thrust to the forefront of the public consciousness and the broader wildfire meteorology community as a meteorological phenomenon, about which little is known. Our analysis showed that conditions similar to Diablo winds tend to occur at night or in the early morning and are most common during the cool season (late fall through spring). However, our analysis is somewhat constrained by the binary nature of our criteria, and we did not consider the eastern San Francisco Bay Area nor the San Francisco Peninsula. Further research is required to address many issues posed by the sparse RAWS network used in this study, including the production and analysis of a long-term, high resolution downscaled numerical climatology. Of the total number of Diablo-like wind conditions, identified on a daily basis per area, 35% occurred north of the San Francisco Bay area only, 41% occurred in the western Sierra Nevada only, and 23% occurred in both areas. Thus, conditions similar to Diablo winds appear to be just as common in the Sierra Nevada as they are in the area north of the San Francisco Bay Area.*
>
> *This implies that they are a regional wind system of Northern California and not a local phenomenon of the San Francisco Bay Area. This indicates that wildfire fighting resources may be required throughout Northern California, including the western Sierra Nevada, when conditions similar to Diablo winds are forecast. Since historical usage of the term Diablo winds was initially confined to the Oakland Hills, it might be more appropriate to refer to Diablo-like wind conditions in the Sierra Nevada as "Diablos del Sierra" or "Bruja" winds. Associated numerical weather simulations (not shown) strongly suggest the downstream linking of mountain wave breaking over the Sierra Nevada to Diablo wind conditions north of the San Francisco Bay Area.* ***We hypothesize that this mechanism drives Diablo-like wind conditions in both areas and that vertical profiles of wind speed and stability, east of the Sierra Nevada, play a primary role in determining the altitude at which the Sierra downslope jet is lofted off the surface and control of the characteristics of Diablo winds in the San Francisco Bay Area.*** (Smith C, Hatchett BJ, Kaplan M. A Surface Observation Based Climatology of Diablo-Like Winds in California's Wine Country and Western Sierra Nevada. Fire. 2018; 1(2):25. https://doi.org/10.3390/fire1020025)

The weather data around the Project Site does not show significant wind events but it does show pronounced N to NE flow which is likely in these events.

Expected Fire Activity Based on History

Based on the location of the Project Site adjacent to the State Route 50 freeway (source of many fire ignitions) and the proximity of the historic fire corridor to the south and west, coupled with the probability of wind events in the area during times of low moisture (fuel and air), it must be assumed that some fire behavior is going to occur near the Project Site in the near future and continue.

A review of the fire history within 10 miles of the Project Site reveals limited large wildland fire activity in the immediate area around the Project Site. (Figure 30). There is no record of a fire greater than 50 acres on the Project Site within the past 22 years. The nearest fire, over 50 acres, is on the west side of Latrobe Road, approximately 1.5 miles to the west of the project boundary. The increase in fire resources over the past 22 years, coupled with fuels management by CalFire has reduced the frequency of large fires in the general area of the Project Site. Fires can and will continue to occur in the general area due to the nature of the native fuels, but, at least in the past two decades, efforts to minimize these fires have been successful in this area.

To the east of the Project Site (approximately 17 miles) is the location of the Caldor Fire 2021, which started on August 14th and contained on Oct 21st consuming over 220,000 acres or 347 square miles. This fire destroyed 1,003 structures and damaged 81 more. The Caldor Fire started at an elevation of approximately 3,200 feet and burned up to and over the Sierra Nevada divide on down into the Tahoe Basin (Figure 31). This fire was driven by wind, topography and fuel all being in alignment for more of the large runs that the fire made. The conditions that created this level of extreme fire behavior simply do not exist on or near the Project Site. The Project Site is mostly Oak Woodland, whereas the area consumed in the Caldor Fire is mostly Conifer Woodlands. Fire behavior in these two types of woodland is significantly different. The 2021 Caldor Fire (CA-ENF-023040) Burned Area Emergency Response (BAER), Assessment Report Summary, by the Eldorado National Forest and Lake Tahoe Basin Mgt Unit, Pacific Southwest Region, USDA Forest Service, dated October 2021, states:

> *These dominant vegetation communities are found within the fire perimeter areas: alpine dwarf-shrub, annual non-native grassland, blue-oak/foothill pine, chamise/redshank chaparral, Jeffery pine, lodgepole pine, mixed chaparral, montane chaparral, montane hardwood/ conifer, perennial grassland, ponderosa pine, red fir, Sierran mixed conifer, subalpine conifer, wet meadow, and white fir.*

The Project Site has some chaparral fuel areas and once ignited, these fuels will likely burn with great intensity and be difficult to stop. Without historic fire frequency, this chaparral is highly dense and will have a significant dead component as there has been no fire to reduce this load in the recorded large fire database history. Oak Woodlands, on the other hand, do not tend to have the same level of buildup (dead component) resulting in less intense fire behavior. The grass understory of the oaks would have approximately one ton of total fuel load per acre where the chaparral fuels would range from 8 to 15 tons per acre. Large areas of understory shrubs have not been found on the Project Site or surrounding areas nor evidence that it has occurred in the past (dead and downed materials).

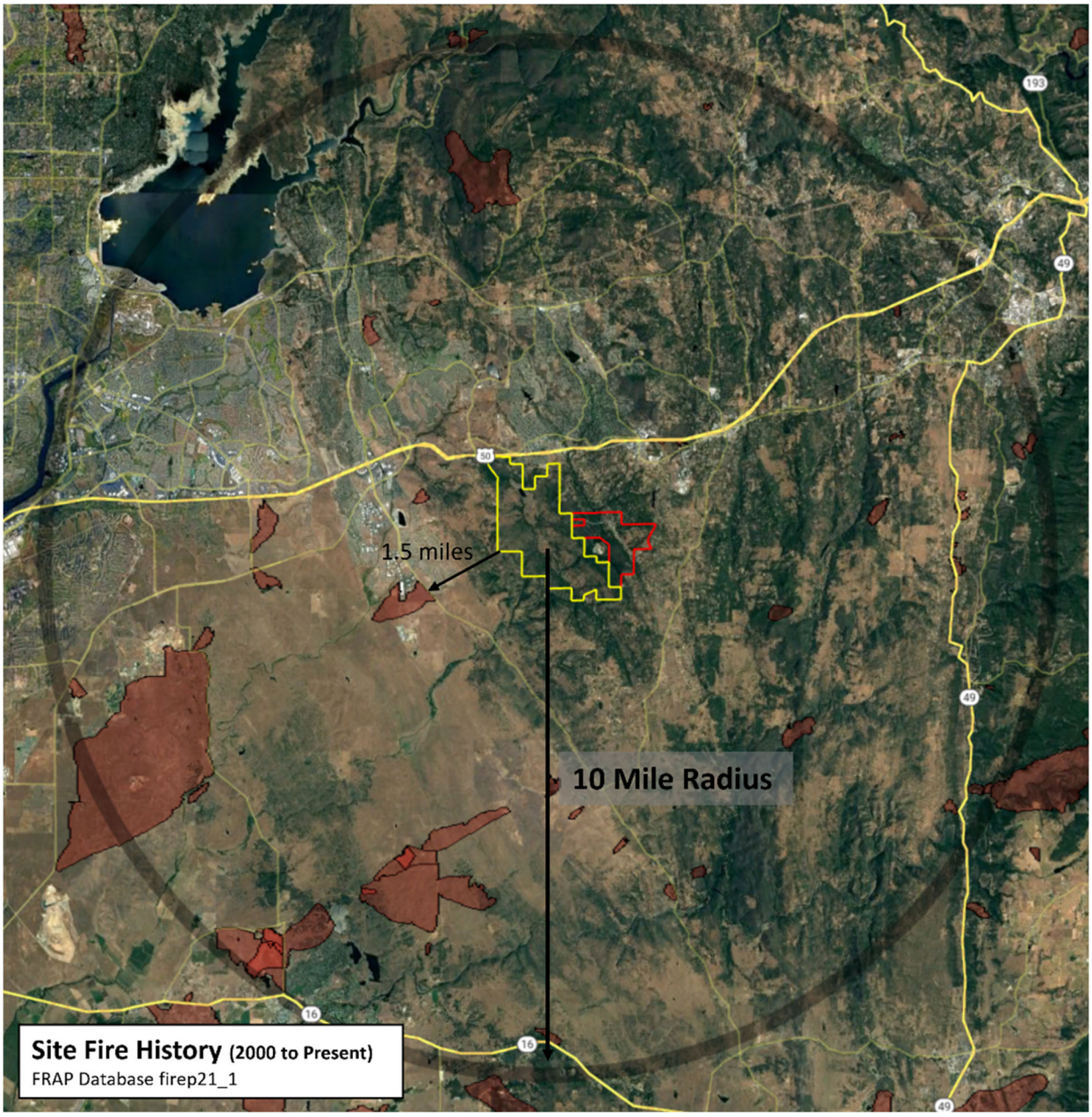


Figure 30 – Recent Fire History

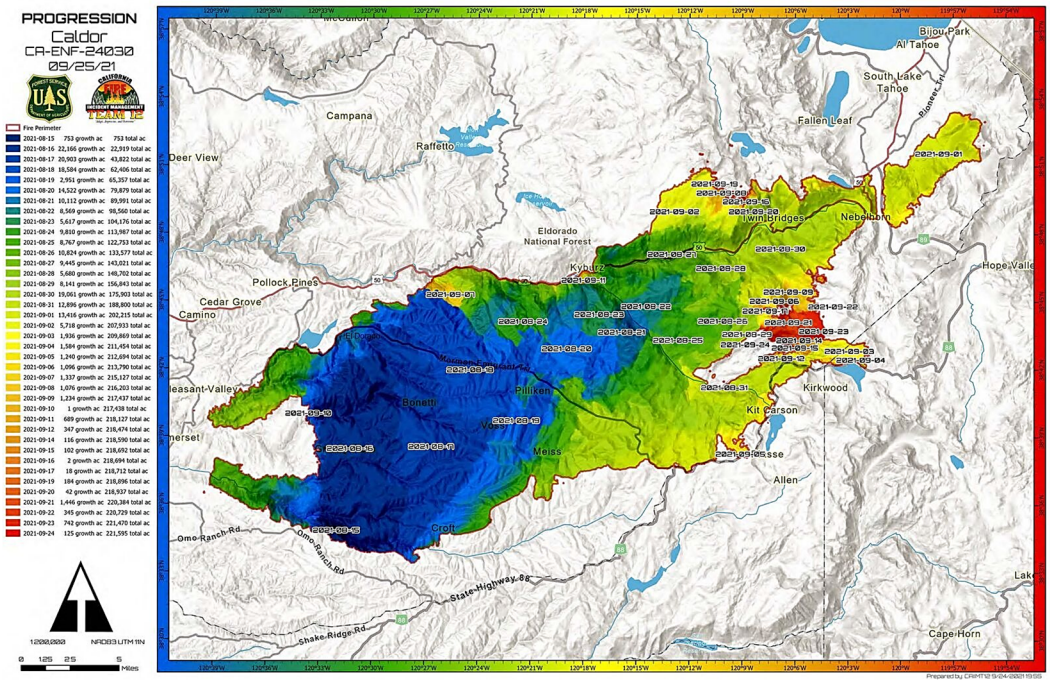


Figure 31 – Caldor Fire Progression Map

Wildfire Risk

The assessment of Wildfire Risk is to examine the hazards in terms of the vulnerability of the assets at risk, the amount of exposure those assets have, and the susceptibility of the assets to wildfire.

Vulnerability

Vulnerability must be examined at multiple levels (Regional, Landscape, Community, and Parcel). At the end of the day, it all comes down to time, distance, and shielding. The amount of time that the fire will impact the area, the distance between the fire and the structures/residents, and the ability of the Project Site to shield its structures/residents from the harmful effects of the fire.

In terms of regional vulnerability, state-wide studies such as the Caltrans Climate Change Vulnerability Assessment Statewide Summary Report 2021 provide a good overview of how different regions of the state of California are expected to be impacted by various climate change issues.

> CalTrans completed a statewide Caltrans Climate Change Vulnerability Assessment for the entire State Highway System in 2019. This study involved applying climate data to refine the agency's understanding of potential climate impacts to the State Highway System, and Caltrans coordinated with various state and federal agencies and academic institutions to obtain the best available climate data for California. Discussions with professionals from various engineering disciplines helped identify how changing climate hazards may affect highways, including their design. The assessment allowed Caltrans to begin to understand how climate change may affect the highway and identified a subset of State

Highway System assets on which to focus future efforts. (https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/office-of-smart-mobility-and-climate-change/caltrans-climate-change-vulnerability-assessment-statewide-summary-feb2021-a11y.pdf)

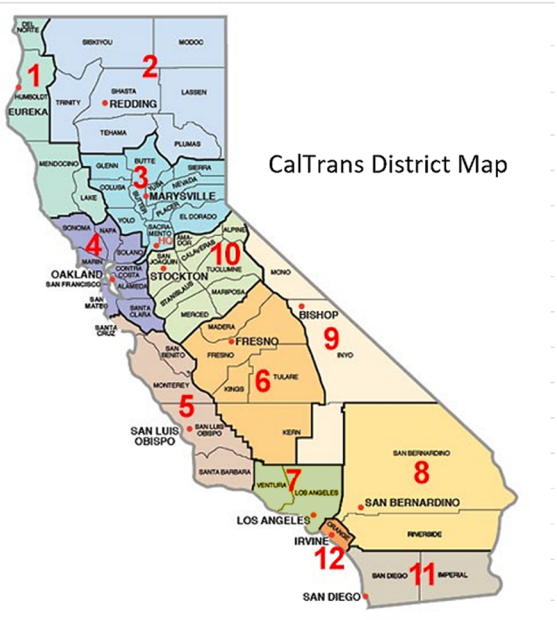
Table 1 (Figure 32 in this report) summarizes the lengths of the State Highway System that passes through the medium to very-high wildfire exposure areas. The Project Site is located in District 3 which is expected to see a 0% increase (none) in the number of State Highway System miles that pass through the medium to very high wildfire exposure areas.

At the Parcel level, the issue of vulnerability is more specific to the actual structure, the amount of defensible space, and the degree of "hardening" of the structure. The current building code standards for structures in the Fire Hazard Severity Zones create the ability for the structure to be more survivable during a fire in the interface. This issue has been studied, and the findings support this view.

The CalFire DSpace (Defensible Space) and DINS (Damage Inspection) Program Analysis program completed an assessment to analyze the effectiveness of Chapter 7A building codes, where they performed a spatial analysis that compared the location of damaged/destroyed commercial and residential structures for the seven largest fires that occurred in 2017 and 2018 (Atlas, Camp, Carr, Nuns, Thomas, Tubbs, and Woolsey) to a 2018 statewide parcel layer. Parcel data, maintained by counties primarily for location and tax purposes, is the most authoritative dataset for information regarding the value and year built of structures in each area.

Table 1: Centerline Miles of Highway Exposed by Year

District	Year 2025	2055	2085	
1	585	702	784	34.0%
2	1519	1534	1544	1.6%
3	743	743	743	0.0%
4	377	546	631	67.4%
5	761	837	875	15.0%
6	638	630	638	0.0%
7	442	451	461	4.3%
8	483	556	655	35.6%
9	296	333	349	17.9%
10	781	786	786	0.6%
11	371	378	423	14.0%
12	71	72	72	1.4%
Total	7068	7567	7961	12.6%



CALTRANS CLIMATE CHANGE VULNERABILITY ASSESSMENT STATEWIDE SUMMARY REPORT 2021

Figure 32 – CalTrans Climate Change Vulnerability Assessment Wildfire 2021

This research demonstrates the power of geospatial information to inform research-based decisions. The study demonstrated that structures built to pre-Chapter 7A building codes were more likely to be destroyed in the seven largest fires on record between 2017 and 2018 (Atlas, Camp, Carr, Nuns, Thomas, Tubbs, and Woolsey). The results also demonstrate that residential

structures built in High and Very High Fire Hazard Severity Zones (FHSZ) were less likely to be destroyed by wildfire than those built in Low FHSZ and Urban classifications.

Using over 1,000 pre-fire home inspections, we were able to use real-world data to analyze what factors were most strongly associated with residential structure loss in the Camp Fire. Our findings indicate that wooden roofs, single-pane windows, wooden decks/patios, combustible exterior siding, and a combustible fence attached to a structure are the attributes that are most likely to increase the odds of loss for a residential structure. Structures with double pane windows and patio/carport covers, decks, and exterior siding made of non-combustible materials had a significantly lower chance of structure loss. (CAL FIRE Defensible Space and Damage Inspection Program Data Analysis, August 27, 2019, Steven R. Hawks, William L. Brewer). Compliance with fire resistance construction standards is enforced through defensible space inspections and AB38 inspections.

Between the Regional level and Parcel level are the Landscape and Community levels. The Landscape level is about the vegetation surrounding the development. The U.S. Fire Administration defines this level as:

> *Wildland landscapes are the dense natural areas that surround the community. These large natural areas can be made up of thousands or even millions of acres. They contain diverse natural fuel types, have undergone various levels of development or management, and are under the oversight of state, federal, tribes, cities or other agencies and organizations.*
> *These landscapes require the highest level of collaborative management and partnership. Local fire resources can actively work with the larger land management partners in establishing forest management discussions, project prioritization, strategic planning and implementation efforts.* (U.S. *Fire Administration, Wildfire, Healthy Landscapes, https://www.usfa.fema.gov/wui/healthy-landscapes/)*

At the Community level are the issues of placement on the topography, fuel modification/ defensible space zones, roadside clearance, allowable plant palette, and infrastructure (roads, water, design).

Vulnerability is further divided into Exposure and Susceptibility for the purpose of analysis in the case of wildland fires.

Exposure

Exposure is the result of Likelihood and Intensity combining or occurring simultaneously. A community or structure can be directly exposed to wildfire from adjacent wildland vegetation (direct flame contact, radiated heat exposure, or convected heat exposure), or indirectly exposed to wildfire from embers and home-to-home ignition.

The Project Site will have structures that are constructed in accordance with the current codes (at time of construction) with respect to wildland fire safety. This means that they will be "hardened", they will have defensible space designed into the configuration, they will be protected with automatic fire sprinklers per NFPA standards, and the entire Project Site will have fuel modification/defensible space zones in accordance with the development requirement of the Fire Department (up to 100' minimum distance). Direct exposure to a wildland fire is extremely

unlikely, given the requirements applied to this development. Indirect (embers and brands) are likely to occur during a fire in the adjacent wildland. Requirements in the California Building Code Chapter 7A and in the California Residential Code Section R337 provide for ember protection through requirements on vents, gutters, roof valleys, decks, exterior siding, eave protection and several other areas where fire embers might be an issue if they were to land or collect. Leaf guards on gutter is one example of such protection requirements.

The issue of home-to-home ignition is addressed by several risk reduction measures which include: the automatic fire sprinkler systems which are designed to hold the fire to the room of origin, the increased fire resistance nature of the exterior of the structures, the use of double-pane windows with one pane being required to be tempered glass and requirement of Chapter 49 of the Fire Code, and the Public Resources Code Section 4291 which provides for the requirements of the "home ignition zone" to reduce the possibility of structure ignition or fire movement between structures.

The CalFire DSpace and DINS Program Analysis program concluded that "… *a higher proportion of parcels built pre-Chapter 7A contained a destroyed structure and a greater proportion of parcels with no damaged or destroyed contained a structure built post 2009"*. It also concluded that, "*... results also demonstrate that residential structures built in High and Very High Fire Hazard Severity Zones (FHSZ) were less likely to be destroyed by wildfire than those built in Low FHSZ and Urban classifications*" which provides some data on the improved outcomes in the zones where construction features are required to be increased for direct and indirect wildland fire impacts.

Susceptibility

The Marble Valley project has been designed in a manner that provides efficient protection from wildfires. Perimeter structures must be protected from radiant heat, direct flame contact, and convected heat to a higher degree than the structures which are in the interior of the development envelope. This protection is achieved through distance, shielding and limiting the amount of fuel near the structures. This shielding of interior structures equates to decreased risk potential.

While the current project configuration is not an Intermix condition (as described previously), the convoluted interface will increase the complexity of the fire behavior closer to the development area but using a "system's approach" by having fuel modification/defensible space zones interconnected and designed as a whole provide for a significant barrier to fire encroachment into the development areas. The use of defensible space, structure hardening, wildland fuel elimination and modification and placement of the structure on the topography to avoid problematic conditions such as saddles, chimneys, ridgeline wind acceleration, and problematic wildland fuels, creates an overall protection system that is multifaceted and provided for synergistic protections as well as some level of extra protection. These factors are examined in the Fire Safe Plan and addressed in the plan review process for the tract/parcel map. For example, keeping the flaming front of the fire at a distance that will reduce radiant heat issues, but still providing tempered glass in the double-paned windows creates this type of extra protection.

Climatic Conditions

Increasing Temperatures: While temperature increases are likely, according to most of the published materials on climate change in California, the Project Site is not likely to be impacted by this change in terms of wildland fire behavior. The USGS report cited earlier stated, "*Higher temperatures during or in the months prior to Diablo Wind events were generally not associated with the area burned."* Higher temperatures may well increase the curing rate (rate at which the seasonal growth loses moisture and becomes a dead fuel) of seasonal grasses and increase the decline in fuel moisture during the dry periods, but the wildland fuels which are adjacent to and within the Project Site are relatively drought tolerant. Where they not, they would have already succumbed to the current drought cycles in the region. The temperature is certainly important on an incident-level analysis, but this assessment is considering the worst-case scenario and has already assumed that this has occurred.
(https://www.usgs.gov/news/research-spotlight-ignitions-and-wind-speed-are-strongest-drivers-area-burned-santa-ana-wind).

Shifting Wind Patterns: The Diablo/Mono winds will continue to shape wildfire activity across the impacted areas in California. While Fire Weather and Fire Behavior Modelers continue working to determine how these wind events will be impacted by climate change, this analysis has already taken the worst-case wind into account from the current data available.

Precipitation: The amount of rainfall and when it occurs have an extreme impact on fire conditions every year. Drought-impacted fuels are also more susceptible to wildfire. Grasslands in particular have a "boom/bust" growth cycle. Low growth in dry years and high growth in wet years. The Project Site will be resilient to wildfire even in high grassland fuel level years. Wildland fuels in this analysis have assumed an extremely low level of moisture in both the dead and live fuels to account for this aspect of climate change. Changing patterns of rainfall will impact plant growth, thereby altering the amount of fuel for fires.

Changes in Wildland Fuels: After a fire, the lack of precipitation will have an effect on the vegetation that returns. Invasive plants may overtake the native species after a fire. *Most evidence indicates that the strongest impacts of invasive plants on fire regimes in California occur in grasslands and riparian areas*. During this interval where invasives are present, fires may have faster rates of spread but will have lower fireline intensity as they generally have less fuel loading.

> When one thinks of fire in California, one immediately thinks of the massive conflagrations that occur in central and southern California chaparral and sage-scrub ecosystems, particularly because of their close proximity to dense population centers. These closed-canopy shrublands—particularly intact chaparral—are in fact, relatively resistant to invasion by non-native species. However, non-native plants are increasingly closely tied to fire dynamics and to ecosystem responses to fire in some regions.
>
> Under natural conditions, chaparral communities retain most fuels in the canopy layer and have relatively long fire intervals (greater than 20 years). Contrary to common perception, foliar tissue does not easily ignite except under super-heated conditions or when leaf tissue moisture is low. However, several weedy forbs and grasses tend to thrive at the disturbed edges of these shrublands along roads, power lines, and fuel

> breaks where shrubs are removed. The invasive, annual grasses that often colonize these areas dry out much earlier in the spring than the native shrubs, and with their high surface area to volume ratio, they are more prone to ignition than the native vegetation. Mediterranean grasses such as Bromus species and slender oats (Avena barbata) are particularly implicated since they act as wicks, spreading fast-moving fire into the canopies of larger shrub vegetation. (Invasive Species and Fire in California Ecosystems, Adam M. Lambert, Carla M. D'Antonio, and Tom L. Dudley, 2010).

The Project Site has both shrub and grass fuels at the perimeter/interface in addition to the treed interfaces. The modeling will show fire activity in the shrub, grass/shrub mixtures, and grass fuels as well as the canopied fuels. All four of these are accounted for in the analysis. This report does not suggest that the Project Site would use prescribed fire for control purposes, but this may be an option to the regional fire agencies.

Shifting Insect Habitat: Insect infestations are rising in response to the changing climate, increasing tree mortality—particularly in the Sierra Nevada regions —and reducing carbon storage according to the Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act published by the California Attorney General in October of 2022. The Project Site has many trees of various species. Insect infestations are not expected to impact the Project Site in any meaningful way. The biological report on the Project Site has addressed this issue.

The management of Oak Woodlands is complex but overall, fire, used correctly, can be a benefit, especially when done under controlled conditions that do not damage the oaks while reducing the overall risk to adjacent areas.

> *For thousands of years, natural and anthropogenic fire have played an important role in oak woodlands of California. Frequent burning by Native Americans before European settlement resulted in low-intensity fires that maintained open stands of large oaks with little shrub cover, creating a fine-grained mosaic of vegetation patches. Following European American settlement in the mid-1800s, ranchers also conducted burns. Fire history studies indicate that average fire return intervals in oak woodlands in the late nineteenth to early twentieth centuries were from 8 to 15 years, at least in some areas. Fire suppression, begun in the 1940s and 1950s, increased surface and crown fuels, invasion of woody vegetation in the understory, and tree density. The effects of past fires are important to consider when making recommendations for wildlife species. Because these conditions existed for such a long time, they represent conditions under which species evolved and to which they are adapted.*
>
> *Prescribed fire can be used to reintroduce fire into the ecosystem and co mimic historic fire regimes. Current land ownership patterns complicate prescribed burning plans in many areas, particularly those in urban-wildland interface areas. With careful planning and attention, however, low-intensity prescribed fires can be safely implemented and can achieve the desired results. Moderate- co low-intensity fires rarely kill mature oaks because their thick bark protects them from damage. However, even a low-intensity fire often kills the tops of seedlings, saplings, and small trees, though most will resprout from their base. Most scientific evidence indicates that typical oak woodland understory fires do not adversely affect the majority of terrestrial vertebrate populations. In an*

> *experimental fire that burned over approximately 50 percent of 500 acres (200 ha) of mixed blue oak-coast live oak woodland in central coastal California, there was no appreciable loss of canopy cover, shrubbery, or snags (Vreeland and Tietje 2002). Although grass cover was reduced by 70 percent and downed wood and woodrat houses by 30 percent, there were no substantial or long-term negative impacts to over 150 species of birds, small mammals, amphibians, and reptiles monitored 2 years before and 4 years after the fire.* (A Planner's Guide for Oak Woodlands, Second Edition, University of California, Agriculture and Natural Resources, Publication 3491, pages 26-27)

Prescribed fire would only be undertaken by CalFire and is not a tool available to the Project Site but rather a regional option that may be undertaken.

Hazard and Risk Summary

The Project Site is embedded in an area that is adjacent to native wildland fuels on most of the Project Site wildland interface; it will have a wildland interface along the project perimeter. The Project Site is located, for the most part, within the Marble Valley drainage, where most fuels will be oak woodlands with some areas of grassland and chaparral. According to the CalFire database, fires have historically occurred with regular frequency in the regional area around the Project Site, but none have burned over the Project Site that is contained within the CalFire database. Current scientific studies (cited previously in this report) indicate that large fire activity will involve winds pushing the fire to achieve extreme fire behavior. This does not mean that every time the wind blows on a hot day a large fire will occur or that extreme fire behavior is guaranteed based on weather alone, The Highway 50 corridor is a potential source of many fires within the area but also serves as a barrier to some fires (fire perimeter stops at the freeway) where fire conditions (ember cast) do not allow the fire to cross over the freeway and continue to burn. Extreme fire behavior is possible and should be modeled in any scenario in which fire behavior outputs are to be used in this report. This is the basis for the analysis that follows.

The Project Site will need to mitigate against direct fire impingement, radiant heat impingement, convected heat impacts, and ember/brand intrusion, which are all required by the current Regulations. Additionally, modeling will need to demonstrate that the Project Site can be evacuated in a timely manner or that if evacuation is not possible because of the location of the incipient fire, the community will be able to provide "areas of refuge" until it is safe to evacuate, or the fire is suppressed. This analysis is done in a separate document.

Project Impacts Related to Wildland Fires

Ingress/Egress

The Project Site configuration has two access points that will be used on a daily basis for ingress and egress (Marble Valley Road to the Bass Lake Road Interchange (NW Access) and Deer Creek Road/Flying C Road to the Cambridge Road Interchange (N Access)). Five EVA (Emergency Vehicle Access) points are identified, with two serving the Marble Valley site primarily and three serving the Lime Rock site primarily, but all of which could be used by either project if completed. The location of each is shown in Figure 33.

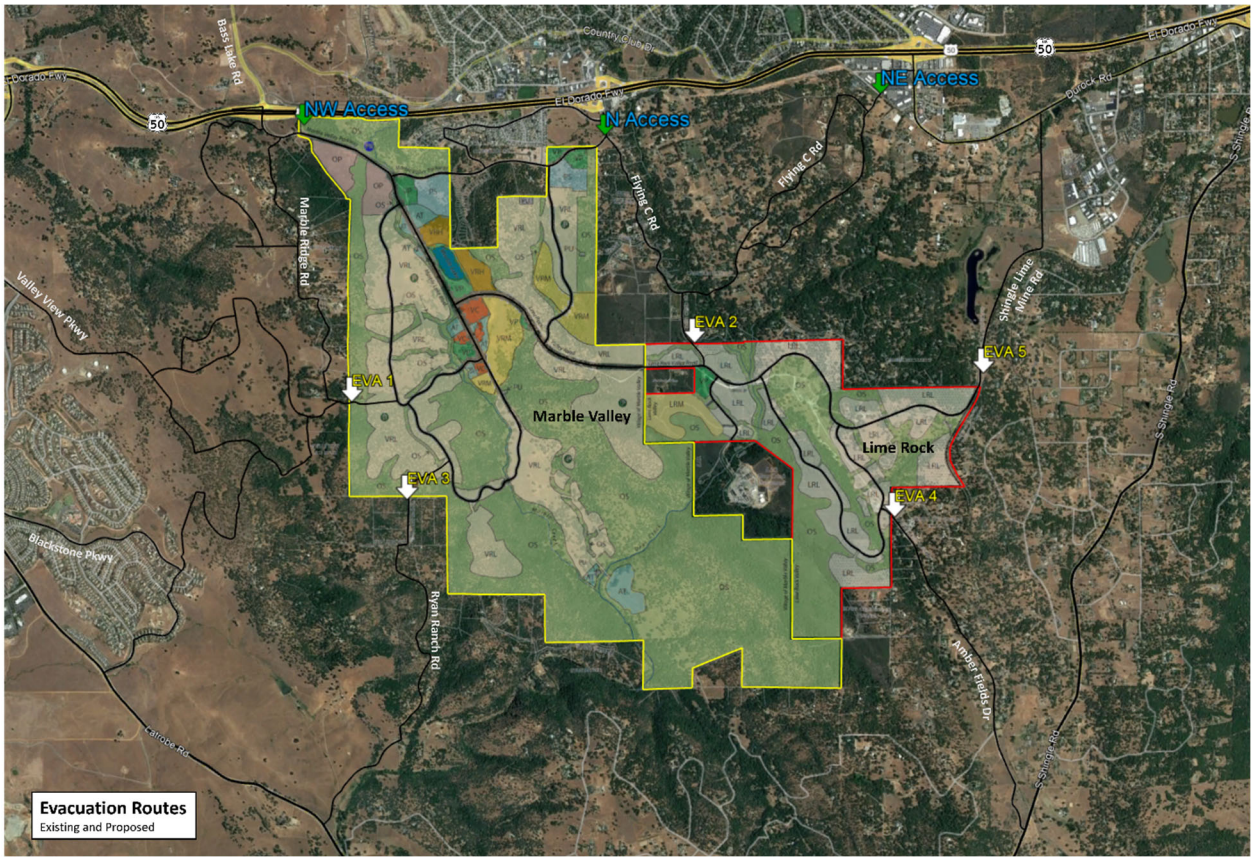


Figure 33 – Evac (Evacuation) Points

These locations will be analyzed in the Evacuation Modeling by the Traffic Engineer using the fire behavior information to determine when each site would no longer be viable for use under fire conditions.

Fire Modeling

Fire modeling will provide a number of outputs that can be used to examine the need and appropriateness of project design features and risk reduction measures. Static modeling is for a given location or condition which does not account for variables over the landscape. The BehavePlus modeling software will be used for this purpose. "*The BehavePlus, Fire Behavior Prediction, and Fuel Modeling System is the most popular and accurate method for predicting wildland fire behavior in pre-fire defense planning. The BehavePlus fire behavior computer modeling system is utilized by wildland fire experts nationwide. Because the model was designed to predict the spread of a fire, the fire model describes the fire behavior only within the flaming front. The primary driving force in the fire behavior calculations is the dead fuel less than ¼" in diameter; these are the fine fuels that carry the fire. Fuels larger than ¼" in diameter contribute to fire intensity, but not necessarily to fire spread. The BehavePlus fire model describes a wildfire spreading through surface fuels, which are burnable materials within 6' of the ground and contiguous to the ground. This type of modeling demonstrates the potential of wind, or a slope-driven fire that could potentially enter the fuel modification zones from the adjacent wildland areas."* (Andrews, Patricia L. 2014 (published online 2013). Current status and future needs of the BehavePlus Fire Modeling System. International Journal of Wildland Fire 23(1):21-33.)

The Regional modeling in this report will be accomplished using FlamMap, which can simulate potential fire behavior characteristics (spread rate, flame length, fireline intensity, etc.), fire growth and spread, and conditional burn probabilities under constant environmental conditions (weather and fuel moisture). The version used in this report (Version 6.1) includes a FARSITE module (previously a separate application) which allows for outputs on wildfire growth and behavior for longer time periods under heterogeneous conditions of terrain, fuels, fuel moistures, and weather.

Because environmental conditions remain constant when using FlamMap, MTT (Minimum Travel Time), Burn Probability, and TOM (Treatment Optimization Modeling), it will not simulate temporal variations in fire behavior caused by weather and diurnal fluctuations as FARSITE does. Nor will it display spatial variations caused by backing or flanking fire behavior. These limitations need to be considered when viewing FlamMap output using these models in an absolute rather than relative sense. However, these outputs are well-suited for Landscape-level comparisons of fuel treatment effectiveness because fuel is the only variable that changes. Outputs and comparisons can be used to identify combinations of hazardous fuel and topography, aiding in prioritizing fuel treatments.

The FlamMap software creates a variety of vector and raster maps of potential fire behavior characteristics (for example, spread rate, flame length, crown fire activity) and environmental conditions (dead fuel moistures, mid-flame wind speeds, and solar irradiance) over an entire landscape or for specific modeling applications these same outputs are limited to the simulation footprint (MTT and FARSITE). For practical purposes, the most important result of the FARSITE tests to date has been that **spread rates for all fuel models tended to be over-predicted** by the Rothermel spread equation (Rothermel 1972). (https://firelab.org/project/flammap). The overall result produces a conservative/worst-case analysis.

Static modeling (BehavePlus)

For the Static modeling, a worst-case fire scenario based on current and expected conditions was used. The modeling input assumptions are:

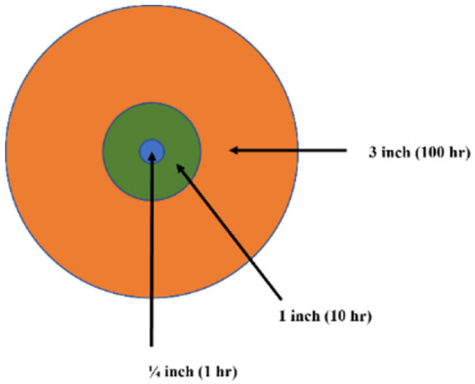


Figure 34 - Dead Fuel Moisture Sizes

1-hr Dead Fuel Moisture	3%
10-hr Dead Fuel Moisture	4%
100-hr Dead Fuel Moisture	5%
Live Herbaceous Fuel Moisture	30%
Live Woody Fuel Moisture	50%

Wind Speeds at 0, 30, 40, 50, and 65 mph with an adjustment factor of 0.5 (unprotected) were used for all to attain the midflame wind speeds. Winds are assumed to upslope in full alignment with the fuel and slope. Outputs are for the head of the fire (leading edge) in the direction of maximum spread. Inputs for the modeling are shown in Figure 35.

Inputs: SURFACE

Description		Marble Valley Fuel Comparison
Fuel/Vegetation, Surface/Understory		
Fuel Model		gr1, gr2, gr4, gs1, gs2, sh2, sh5, s
Fuel Moisture		
1-h Fuel Moisture	%	3
10-h Fuel Moisture	%	4
100-h Fuel Moisture	%	5
Live Herbaceous Fuel Moisture	%	30
Live Woody Fuel Moisture	%	50
Weather		
20-ft Wind Speed (upslope)	mi/h	0, 30, 40, 50, 65
Wind Adjustment Factor		0.5
Terrain		
Slope Steepness	%	50

Figure 35 – BehavePlus Inputs for Worst-case Scenario

The outputs are provided in Appendix B (Modeling Outputs) of this report. In Figure 36 the Flame length outputs for each of the select fuel models are provided with some additional information for perspective. The outputs are highlighted, green for the grasslands, yellow for the chaparral, and blue for the oak shrub understory (healthy oak will have a grass understory if the canopies are closed enough). Flame lengths are provided for the various wind speeds from calm (0 mph) to 65 mph. Statistically, the top end of the wind speed would be around 40 mph from the weather history (only two times over 60 mph in 22 years). This modeling is also assuming it is running upslope (50% slope) in alignment with the wind in a continuous fuelbed.

At 40 mph wind speed, the gr2 produces a 11.6-foot flame length and in the gr4, it is 33.7 feet. Within the chaparral, if the sh5/sh7 models are used, the flame lengths are 42.5 and 39.9 respectively. If the SCAL chaparral fuel models are used for manzanita (SCAL14), the 40-mph flame length is 28.1 feet ,and the Chamise models are less. Using the worst-case scenario, this report will assume the sh5 fuel model as the worst-case.

California-specific fuel models labeled SCAL are Fuel models designed to be used with the BehavePlus software for fuel in southern California. They will likely overestimate fire behavior in the El Dorado region. The SCAL fuel models are species specific (manzanita, chamise, ceanothus) and provide a solid measurement of the fuels ability to burn under specified conditions. They are used here to illustrate the similarities and differences between the fuel specific models and the overall shrub models (sh2, sh5, sh7).

Marble Valley Fuel Comparison

Head Fire

Surface Fire Flame Length (ft)

Fuel Model	20-ft Wind Speed (upslope) mi/h				
	0	30	40	50	65
gr1	1.8	2.6	2.6	2.6	2.6
gr2	4.2	11.6	11.6	11.6	11.6
gr4	7.8	25.1	30.1	33.7	33.7
gs1	3.5	11.1	11.7	11.7	11.7
gs2	5.1	16.1	19.2	22.2	23.4
sh2	4.8	13.5	16.0	18.2	21.4
sh5	12.2	36.8	42.5	47.7	54.7
sh7	12.0	34.6	39.9	44.7	51.2
tu4	5.5	17.3	21.1	24.7	29.8
tu5	7.3	18.2	20.8	23.2	26.5
tl1	0.6	0.8	0.8	0.8	0.8
tl2	0.8	1.4	1.4	1.4	1.4
tl3	1.0	1.9	1.9	1.9	1.9
tl4	1.3	2.8	2.8	2.8	2.8
tl5	1.9	5.4	6.0	6.0	6.0
tl6	2.5	7.2	8.6	10.0	10.5
tl8	3.1	8.5	10.1	11.5	13.6
SCAL14	9.8	25.2	28.1	30.6	34.0
SCAL15	7.3	20.1	22.9	25.3	28.6
SCAL16	9.6	27.3	31.1	34.5	39.0
SCAL17	6.5	20.2	23.9	27.3	32.1

Fuel Model	Label	Description
101	gr1	Short, sparse, dry climate grass (D)
102	gr2	Low load, dry climate grass (D)
104	gr4	Moderate load, dry climate grass (D)
121	gs1	Low load, dry climate grass-shrub (D)
122	gs2	Moderate load, dry climate grass-shrub (D)
142	sh2	Moderate load, dry climate shrub (S)
145	sh5	High load, dry climate shrub (S)
147	sh7	Very high load, dry climate shrub (S)
164	tu4	Dwarf conifer understory (S)
165	tu5	Very high load, dry climate timber-shrub (S)
181	tl1	Low load, compact conifer litter (S)
182	tl2	Low load broadleaf litter (S)
183	tl3	Moderate load conifer litter (S)
184	tl4	Small downed logs (S)
185	tl5	High load conifer litter (S)
186	tl6	High load broadleaf litter (S)
188	tl8	Long-needle litter (S)
14	SCAL14	Manzanita
15	SCAL15	Chamise 1
16	SCAL16	North Slope Ceanothus
17	SCAL17	Chamise 2

Figure 36 – BehavePlus Output for Flame Length (all fuels)

* Appendix B, provides fuel model descriptions

At zero wind/zero slope, the maximum flame length is only 12.2' (yellow highlight). Adding a 30-mph wind to the slope nearly triples the flame length to 36.8'. Adding an additional ten mph of wind speed increases the flame length by just over 6 feet at the 40-mph mark and another 5 feet at the 50-mph mark. All three of the grass models (gr1, gr2 and gr4) ran out of fuel. The gr1 fuel is maximized by 30 mph. The gr2 by 40 mph and the gr4 are maximized by the 50-mph wind level and do not increase the flame lengths after that point regardless of the wind increase.

The fuel parameters (the variables for each of the fuel models) for each of the dry climate fuels near the Project Site are provided in Figure 37. These standardized fuel models account for the amount of fuel available for combustion (Fuel Load), the size of the fuel in relationship to the area (SAV ratio or Surface Area to Volume ratio), the fuel bed depth, the level of moisture at which the fuel will no longer combust (moisture of extinction), the amount of live fuel that can be transferred to combustible fuel (Transfer rate), the amount of energy that the particular fuel model can be expected to release (Heat Content) and the amount of dead vs live fuel (live fuel must have the moisture driven off before it can combust).

Fuel model parameters																		
			Fuel load (t/ac)						SAV ratio (1/ft)[b]						Dead Component Calculation			
Fuel Model Code	Fuel Model Number	Climate	1-hr	10-hr	100-hr	Live herb	Live woody	Fuel model type[a]	Dead 1-hr	Live herb	Live woody	Fuel bed depth (ft)	Dead fuel extinction moisture (percent)	Heat content BTU/lb[c]	Fuel Model Code	100% Transfer Dead	100% Transfer Herb	100% Transfer Dead load
SCAL14	N/A	N/A	3.00	4.50	1.05	1.45	5.00	static	350	1500	250	3.0	15	9211	SCAL14	8.55	no transfer	8.55
SCAL15	N/A	N/A	2.00	3.00	1.00	0.50	2.00	static	640	220	640	3.0	13	10000	SCAL15	6.00	no transfer	6.00
SCAL16	N/A	N/A	2.25	4.80	1.80	3.00	2.85	static	500	1500	500	6.0	15	8000	SCAL16	8.85	no transfer	8.85
SCAL17	N/A	N/A	1.30	1.00	1.00	2.00	2.00	static	640	2200	640	4.0	20	8000	SCAL17	3.30	no transfer	3.30
GR1	101	Dry	0.10	0.00	0.00	0.30	0.00	dynamic	2200	2000	9999	0.4	15	8000	GR1	0.10	0.30	0.19
GR2	102	Dry	0.10	0.00	0.00	1.00	0.00	dynamic	2000	1800	9999	1.0	15	8000	GR2	0.10	1.00	1.10
GR4	104	Dry	0.25	0.00	0.00	1.90	0.00	dynamic	2000	1800	9999	2.0	15	8000	GR4	0.25	1.90	2.15
GS1	121	Dry	0.20	0.00	0.00	0.50	0.65	dynamic	2000	1800	1800	0.9	15	8000	GS1	0.20	0.50	0.45
GS2	122	Dry	0.50	0.50	0.00	0.60	1.00	dynamic	2000	1800	1800	1.5	15	8000	GS2	1.00	0.60	1.36
SH1	141	Dry	0.25	0.25	0.00	0.15	1.30	dynamic	2000	1800	1600	1.0	15	8000	SH1	0.50	0.15	0.52
SH2	142	Dry	1.35	2.40	0.75	0.00	3.85	static	2000	9999	1600	1.0	15	8000	SH2	4.50	no transfer	4.50
SH5	145	Dry	3.60	2.10	0.00	0.00	2.90	static	750	9999	1600	6.0	15	8000	SH5	5.70	no transfer	5.70
SH7	147	Dry	3.50	5.30	2.20	0.00	3.40	static	750	9999	1600	6.0	15	8000	SH7	11.00	no transfer	11.00
TU1	161	Dry	0.20	0.90	1.50	0.20	0.90	dynamic	2000	1800	1600	0.6	20	8000	TU1	2.60	0.20	2.64
TU4	164	Dry	4.50	0.00	0.00	0.00	2.00	static	2300	9999	2000	0.5	12	8000	TU4	4.50	no transfer	4.50
TU5	165	Dry	4.00	4.00	3.00	0.00	3.00	static	1500	9999	750	1.0	25	8000	TU5	11.00	no transfer	11.00
TL1	181	N/A	1.00	2.20	3.60	0.00	0.00	static	2000	9999	9999	0.2	30	8000	TL1	6.80	no transfer	6.80
TL2	182	N/A	1.40	2.30	2.20	0.00	0.00	static	2000	9999	9999	0.2	25	8000	TL2	5.90	no transfer	5.90
TL3	183	N/A	0.50	2.20	2.80	0.00	0.00	static	2000	9999	9999	0.3	20	8000	TL3	5.50	no transfer	5.50
TL4	184	N/A	0.50	1.50	4.20	0.00	0.00	static	2000	9999	9999	0.4	25	8000	TL4	6.20	no transfer	6.20
TL5	185	N/A	1.15	2.50	4.40	0.00	0.00	static	2000	9999	1600	0.6	25	8000	TL5	8.05	no transfer	8.05
TL6	186	N/A	2.40	1.20	1.20	0.00	0.00	static	2000	9999	9999	0.3	25	8000	TL6	4.80	no transfer	4.80
TL8	188	N/A	5.80	1.40	1.10	0.00	0.00	static	1800	9999	9999	0.3	35	8000	TL8	8.30	no transfer	8.30

Figure 37 – Wildland Fuel Model Parameters(a larger version is provided in Appendix B)
The red highlighted is to distinguish the six-foot fuel beds.

Marble Valley Fuel Comparison
Head Fire
Surface Fire Rate of Spread (ch/h)

Fuel Model	20-ft Wind Speed (upslope) mi/h				
	0	30	40	50	65
gr1	12.4	27.3	27.3	27.3	27.3
gr2	26.7	244.3	244.3	244.3	244.3
gr4	53.6	679.4	1005.4	1287.8	1287.8
gs1	13.3	164.3	184.8	184.8	184.8
gs2	18.6	225.7	333.7	454.9	513.8
sh2	6.2	59.8	86.1	115.1	163.1
sh5	37.2	406.2	556.7	714.5	962.4
sh7	26.5	263.8	359.6	459.8	616.9
tu4	9.7	116.8	180.3	254.5	383.9
tu5	7.7	55.5	74.7	94.8	126.3
tl1	0.7	1.4	1.4	1.4	1.4
tl2	1.0	3.7	3.7	3.7	3.7
tl3	1.3	5.2	5.2	5.2	5.2
tl4	1.8	10.0	10.0	10.0	10.0
tl5	3.1	28.9	36.9	36.9	36.9
tl6	4.2	42.2	62.8	86.2	95.5
tl8	4.5	38.7	56.1	75.6	108.1
SCAL14	11.6	89.7	113.8	137.5	172.4
SCAL15	13.3	122.0	160.9	200.4	260.7
SCAL16	19.7	188.5	250.5	313.9	411.0
SCAL17	21.0	242.5	350.8	470.3	667.1

66 feet the chain/80 chains to the mile

gr4 is traveling 16 mph in a 50 mph wind
sh5 is traveling 12 mph in a 65 mph wind

Figure 38 – BehavePlus Output for Rate of Spread (all fuels)

Also of note is the Rate of Spread for each of the fuels under different wind speeds, as shown in Figure 38. Under these extreme conditions, the gr4 fuel is traveling at 16 mph in a 50-mph wind, and the sh5 fuel is traveling at 12 mph in the 66-mph wind. This is extreme fire behavior.

Static modeling has shown that flame lengths of 54.7 feet could be expected if the fire was running upslope, in alignment with the wind, in a continuous fuelbed in a sh5 fuel. BehavePlus 6.0.0 has a chaparral module for refining these calculations.

If this module is run in the same scenario parameters and the maximum value for fuelbed depth is input at 8 feet, and the Dead Load Fraction is set to the maximum value in the model of 43%, and the total fuel load is set to 31tons per acre, the maximum flame length is 53.9 feet, as shown in Figure 40.

Increasing the dead load actually slows the ROS (see appendix Behave runs).

Inputs: SURFACE

Description		Chaparral Fuel Scenario Worst Case
Fuel/Vegetation, Surface/Understory		
Chaparral Fuel Bed Depth	ft	8
Chaparral Dead Load Fraction	%	32, 33, 34, 35, 36, 40, 41, 42, 43,
Chaparral Total Fuel Load	ton/ac	25, 28, 29, 31
Fuel Moisture		
1-h Fuel Moisture	%	3
10-h Fuel Moisture	%	4
100-h Fuel Moisture	%	5
Live Herbaceous Fuel Moisture	%	30
Live Woody Fuel Moisture	%	50
Weather		
20-ft Wind Speed	mi/h	65
Wind Adjustment Factor		0.5
Wind Direction (from north)	deg	45
Terrain		
Slope Steepness	%	50
Site Aspect	deg	45

Chaparral Fuel Scenario Worst Case

Head Fire

Surface Fire Flame Length (ft)

Chaparral Fuel Dead Load Fraction	Chaparral Total Fuel Load ton/ac			
%	25	28	29	31
32	46.1	49.0	49.9	51.7
33	46.4	49.3	50.3	52.0
34	46.7	49.6	50.6	52.4
35	46.9	49.9	50.9	52.7
36	47.2	50.2	51.1	52.9
40	47.7	50.8	51.8	53.7
41	47.8	50.9	51.9	53.8
42	47.8	50.9	51.9	53.8
43	47.8	50.9	51.9	53.9
44	47.7	50.9	51.9	53.9
45	47.7	50.9	51.9	53.8
46	47.5	50.8	51.8	53.8
47	47.4	50.6	51.7	53.7
48	47.2	50.5	51.5	53.5
49	47.0	50.3	51.3	53.3
50	46.7	50.0	51.1	53.1

Figure 39 – BehavePlus Inputs/Outputs for Chaparral Fuels Comparision

Based on the worst-case modeling calculations, a maximum flame length of approximately 55 feet could be expected under extreme conditions which are not present on the Project Site currently or in the recent past.

Regional Modeling (FlamMap/MTT)

Using the FlamMap software, it is possible to track the expected path of the fire across the landscape (wildland) and provide rough timeframes for the arrival of the fire front. Specifically, the Minimum Travel Time (MTT) module provides both the path of the fire (major and minor paths) and the excepted arrival interval from the starting point of the scenario. In this section, this function will be used to estimate the amount of time that would be available for evacuation at each of the Evacuation Points discussed earlier. Each scenario will be completed for all four configurations (No project, Marble Valley development, Lime Rock development and both developments). The information generated here will be used in the traffic analysis for evacuation timeframes.

The inputs to the FlamMap software are as follows:

- Winds are scenario specific based on the weather history for the area. 99th percentile value was under 40 mph.
- Foliar Moisture Content is set to 100%.
- Crown Fire Calculation Method set to Finney (2004) as this is the method used in the Farsite modeling software, and it the most appropriate for the model as it is being used (minimum travel time).
- Winds are calculated using Generated Gridded Wind (Wind Ninja) rather than generating them in Wind Ninja and importing the results.
- Fuel Moisture settings were fixed using a 3,4,5,30,50 moisture scenario as discussed previously.
- Fuel Moisture Conditions were not used as the moisture scenario is worst-case. Since the lowest recorded moisture is being used, conditioning the fuels will not lower them.
- Maximum Simulation Time was set to 480 minutes as the evacuations would be completed prior to this point.
- Spot Probability was set to 100% to maximize the worst-case conditions.
- Spotting Delay was set to zero to maximize the worst-case conditions.
- Ignition and barrier files are scenario specific but identical for each configuration alternative.

Scenarios have been completed for sixteen locations with various site-specific wind speeds and directions (as indicated in the matrix). Each of these fires corresponds to historic wind data from the weather site discussed previously and summarized in Figures 27 and 31 above. Each scenario has been accomplished for each of the development configurations. Outputs are provided in the appendixes. The outcomes are summarized in the matrix beginning on the next page. The matrix specifies the amount of time that the Evacuation Point would remain viable during the specific scenario.

Matrix 1 – Outputs from Flammap Modeling

Scenario #	Location	NW	N	NE	EVA 1	EVA 2	EVA 3	EVA 4	EVA 5
1-A 1-B 1-C	Latrobe Rd North of Ryan Ranch Rd SW 65 No Development	A-360+ B-300+ C-240+	A-60 B-60 C-90	A-360+ B-None C-None	A-90+ B-90 C-90	A-300+ B-240+ C-240+	A-30-N/A B-30-N/A C-30-N/A	A-None B-None C-None	A-None B-None C-None
1-D	Latrobe Rd North of Ryan Ranch Rd SW 65 Marble	400+	360+	None	100	270+	40 – N/A	None	None
1-E	Latrobe Rd North of Ryan Ranch Rd SW 65 Lime	N/A (360+)	N/A (55)	None	N/A (60)	360	N/A (30)	None	None
1-F	Latrobe Rd North of Ryan Ranch Rd SW 65 Both	400+	360+	None	100	270+	N/A (40)	None	None
1-G	Latrobe Rd North of Ryan Ranch Rd SW 50 No Development	300+	60+	360+	90	240+	N/A (40)	None	None
1-H	Latrobe Rd North of Ryan Ranch Rd SW 50 Marble	270+	None	None	90	400+	N/A (45)	None	None
1-I	Latrobe Rd North of Ryan Ranch Rd SW 50 Lime	N/A**(300+)	N/A (60)	None	N/A (90)	360	N/A (45)	None	None
1-J	Latrobe Rd North of Ryan Ranch Rd SW 50 Both	270+	None	None	100+	None	N/A (45)	None	None
1-K	Latrobe Rd North of Ryan Ranch Rd SW 40 No Development	240+	90+	None	90+	300+	N/A (45)	None	None
1-L	Latrobe Rd North of Ryan Ranch Rd SW 40 Marble	240+	None	None	85	400+	N/A (45)	None	None
1-M	Latrobe Rd North of Ryan Ranch Rd SW 40 Lime	N/A**(240+)	90	None	N/A (90)	210	N/A (45)	None	None
1-N	Latrobe Rd North of Ryan Ranch Rd SW 40 Both	270+	None	None	90	None	N/A (55)	None	None
1-O	Latrobe Rd North of Ryan Ranch Rd SW 30 No Development	240+	120+	None	90+	240+	N/A (65)	None	None
1-P	Latrobe Rd North of Ryan Ranch Rd SW 30 Marble	270	None	None	110	None	N/A (65)	None	None
1-Q	Latrobe Rd North of Ryan Ranch Rd SW 30 Lime	N/A** (300+)	120	None	N/A (90)	230	N/A (65)	None	None

N/A is not accessable. None is no time restriction. Numbers are in minutes (time to egress point no longer viable)
* Only applies if infrastructure (roads) from adjacent project is provided (even if balance of the project is not completed)
** - Based on travel route impacts not Evac Point

Scenario #	Location	NW	N	NE	EVA 1	EVA 2	EVA 3	EVA 4	EVA 5
1-R	Latrobe Rd North of Ryan Ranch Rd SW 30 Both	270	None	None	110	None	N/A (65)	None	None
1-S	Latrobe Rd North of Ryan Ranch Rd WSW 65 No Development	None	360+	None	300+	200+	N/A** (240+)	360+	300+
1-T	Latrobe Rd North of Ryan Ranch Rd WSW 65 Marble	None	None	None	None	200	N/A** (240+)	360+	360+
1-U	Latrobe Rd North of Ryan Ranch Rd WSW 65 Lime	N/A** (None)	220**	None	N/A** (360+)	220	N/A** (240+)	None	None
1-V	Latrobe Rd North of Ryan Ranch Rd WSE 65 Both	None	None	None	360+	None	N/A** (240+)	None	None
2-A	Ryan Ranch Rd to Beaver Pond Rd SW 65 No Development	None	N/A (20)	150+	360+	N/A (20)	N/A (0)	None	None
2-B	Ryan Ranch Rd to Beaver Pond Rd SW 65 Marble	None	145	N/A (120)	360+	N/A (50)	N/A (115)	N/A** (None)	N/A** (None)
2-C	Ryan Ranch Rd to Beaver Pond Rd SW 65 Lime	N/A (None)	N/A (20)	N/A (160)	N/A (0)	N/A (20)	N/A (110)	None	None
2-D	Ryan Ranch Rd to Beaver Pond Rd SW 65 Both	None	None	N/A** (300+)	435	N/A (75)	N/A (110)	None	None
2-E	Ryan Ranch Rd to Beaver Pond Rd SSW 65 No Development	150+	N/A (50)	None	N/A (120)	240+	N/A (0)	None	None
2-F	Ryan Ranch Rd to Beaver Pond Rd SSW 65 Marble	250	None	None	175	None	N/A (0)	None	None
2-G	Ryan Ranch Rd to Beaver Pond Rd SSW 65 Lime	N/A** (180+)	N/A (50)	None	N/A (120)	225	N/A (0)	None	None
2-H	Ryan Ranch Rd to Beaver Pond Rd SSW 65 Both	250	300+	None	175	None	N/A (0)	None	None
3-A	End of Beaver Pond Rd SW 65 No Development	None	150+	N/A (60)	None	N/A (0)	None	360+	300+
3-B	End of Beaver Pond Rd SW 65 Marble	None	290	N/A (60)	None	N/A (0)	None	N/A** (360+)	N/A** (300+)
3-C	End of Beaver Pond Rd SW 65 Lime	N/A** (None)	N/A** (150)	N/A** (200+)	N/A** (None)	N/A (0)	N/A** (None)	None	None

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* Only applies if infrastructure (roads) from adjacent project is provided (even if balance of the project is not completed)
** - Based on travel route impacts not Evac Point

Scenario #	Location	NW	N	NE	EVA 1	EVA 2	EVA 3	EVA 4	EVA 5
3-D	End of Beaver Pond Rd SW 65 Both	None	None	None	None	None	None	None	None
3-E	End of Beaver Pond Rd SSW 65 No Development	360+	N/A (0)	360+	None	N/A (0)	360+	None	None
3-F	End of Beaver Pond Rd SSW 65 Marble	None	90	N/A** (None)	None	N/A (0)	360+	N/A** (None)	N/A** (None)
3-G	End of Beaver Pond Rd SSW 65 Lime	N/A** (360+)	N/A (0)	None	N/A** (None)	300+	N/A (0)	None	None
3-H	End of Beaver Pond Rd SSW 65 Both	None	300+	None	None	N/A (0)	360+	None	None
4-A	End of Summer Creek Ct SW 65 No Development	None	360+	N/A (60)	None	90+	None	N/A (30)	N/A (30)
4-B	End of Summer Creek Ct SW 65 Marble	None	None	N/A (90)	None	N/A (150)	None	N/A** (50)	N/A** (50)
4-C	End of Summer Creek Ct SW 65 Lime	210**	230*	120+	N/A** (None)	230	N/A** (None)	90	120
4-D	End of Summer Creek Ct SW 65 Both	None*-	None*	120+	None	None	None	90	120
5-A	Venture Valley Rd at Ranch Gate Rd SW 65 No Development	None	150+	N/A (50)	None	N/A (0)	300+	240+	120+
5-B	Venture Valley Rd at Ranch Gate Rd SW 65 Marble	None	240	N/A (60)	None	N/A (30)	N/A** (240+)	N/A**(210)	N/A** (200+)
5-C	Venture Valley Rd at Ranch Gate Rd SW 65 Lime	N/A** (None)	N/A** (120+)	N/A** (240+)	N/A** (None)	N/A** (120)	N/A** (360+)	300+	300+
5-D	Venture Valley Rd at Ranch Gate Rd SW 65 Both	None	240	N/A (240+)	None	N/A** (120)	N/A **(200+)	300+	300+
5-E	Venture Valley Rd at Ranch Gate Rd SSW 50 No Development	180+	N/A (30)	None	180+	120+	N/A (20)	None	None
5-F	Venture Valley Rd at Ranch Gate Rd SSW 50 Marble	300+	240+	N/A** (None)	250+	N/A** (120)	N/A (20)	N/A** (None)	N/A** (None)
5-G	Venture Valley Rd at Ranch Gate Rd SSW 50 Lime	N/A** (240+)	N/A (40)	None	N/A** (200+)	N/A** (180+)	N/A (60)	None	None

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Scenario #	Location	NW	N	NE	EVA 1	EVA 2	EVA 3	EVA 4	EVA 5
5-H	Venture Valley Rd at Ranch Gate Rd SSW 50 Both	200+	N/A** (300+)	None	160	120	N/A (20)	None	None
6-A	Cothrin Ranch Rd at Thunder Ln SW 50 No Development	None	None	None	None	300+	None	N/A (0)**	N/A (40)
6-B	Cothrin Ranch Rd at Thunder Ln SW 50 Marble	None	None	200	None	300+	None	N/A (0)**	N/A (40)
6-C	Cothrin Ranch Rd at Thunder Ln SW 50 Lime	None*	None	300+	None*	300+	None*	N/A (0)**	N/A (90)
6-D	Cothrin Ranch Rd at Thunder Ln SW 50 Both	None	None	None	None	None	None	N/A (0)**	N/A (90)
6-E	Cothrin Ranch Rd at Thunder Ln SSW 50 No Development	None	180+	None	None	N/A** (60)	None	120+	240+
6-F	Cothrin Ranch Rd at Thunder Ln SSW 50 Marble	None	120	N/A** (120)	None	N/A** (60)	None	N/A** (120)	N/A** (300+)
6-G	Cothrin Ranch Rd at Thunder Ln SSW 50 Lime	N/A** (None)	N/A** (150)	N/A** (300+)	N/A** (None)	N/A** (300+)	N/A** (None)	90	210
6-H	Cothrin Ranch Rd at Thunder Ln SSW 50 Both	None	None	N/A** (240+)	None	None	None	90	120
7-A	Bullard Dr west of Amber Fields Dr S 50 No Development	None	180+	180+	None	150+	None	N/A (0)	120+
7-B	Bullard Dr west of Amber Fields Dr S 50 Marble	None	90	N/A** (300+)	None	N/A** (150)	None	N/A** (0)**	N/A** (120)
7-C	Bullard Dr west of Amber Fields Dr S 50 Lime	None*	240+	N/A** (300+)	None*	240+	None*	N/A** (0)**	N/A** (120)
7-D	Bullard Dr west of Amber Fields Dr S 50 Both	None	300+	N/A** (300+)	None	300+	None	N/A** (0)**	N/A** (120)
7-E	Bullard Dr west of Amber Fields Dr SSE 50 No Development	100+	N/A (90)	None	360+	N/A (30)	None	N/A (0)**	360+
7-F	Bullard Dr west of Amber Fields Dr SSE 50 Marble	None	N/A (90)	N/A** (None)	None	N/A (30)	None	N/A (0)**	N/A** (300+)
7-G	Bullard Dr west of Amber Fields Dr SSE 50 Lime	N/A** (120)	N/A (150**)	None	N/A** (360+)	N/A** (120)	N/A** (None)	N/A (0)**	300+

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** - Based on travel route impacts not Evac Point

Scenario #	Location	NW	N	NE	EVA 1	EVA 2	EVA 3	EVA 4	EVA 5
7-H	Bullard Dr west of Amber Fields Dr SSE 50 Both	None	N/A** (150)	None	None	N/A** (120)	None	N/A (0)**	300+
8-A	S. Shingle Rd north of Barnett Ranch Rd E 50 No Development	None	None	None	360+	None	N/A (210+)**	150+	None
8-B	S. Shingle Rd north of Barnett Ranch Rd E 50 Marble	None	None	None	None	300+	300+	N/A (0)**	300+**
8-C	S. Shingle Rd north of Barnett Ranch Rd E 50 Lime	None*	None	None	N/A** (360+)	None	N/A** (240+)	N/A** (0)**	None
8-D	S. Shingle Rd north of Barnett Ranch Rd E 50 Both	None	None	None	None	None	N/A** (300+)	N/A (0)**	None
8-E	S. Shingle Rd north of Barnett Ranch Rd ESE 50 No Development	360+	None	None	N/A (50)**	180+	N/A (30)	N/A (0)**	None
8-F	S. Shingle Rd north of Barnett Ranch Rd ESE 50 Marble	None	None	None	N/A (90)**	200+	N/A (90)	N/A (0)**	N/A (None)
8-G	S. Shingle Rd north of Barnett Ranch Rd ESE 50 Lime	None*	None	None	N/A (90)**	300+	N/A (60)_	N/A (0)**	None
8-H	S. Shingle Rd north of Barnett Ranch Rd ESE 50 Both	None	None	None	N/A	None	N/A (90)	N/A (0)**	None
9-A	S. Shingle Rd north of Big Ranch Rd E 50 No Development	None	None	None	180+	240+	N/A (0)**	N/A (60)	180+
9-B	S. Shingle Rd north of Big Ranch Rd E 50 Marble	None	None	None	300+	180+	N/A (90)**	N/A (60)	N/A** (150)
9-C	S. Shingle Rd north of Big Ranch Rd E 50 Lime	None*	None	None	300+*	300+	N/A (150)**	N/A (60)	N/A** (150)
9-D	S. Shingle Rd north of Big Ranch Rd E 50 Both	None	None	None	None	300+	300+	N/A** (120)	N/A** (150)
10-A	Shingle Lime Mine Rd south of Dividend Dr @ RR tracks NE 50 No Development	None	None	None	None	None	None	N/A (0)	N/A (0)
10-B	Shingle Lime Mine Rd south of Dividend Dr @ RR tracks NE 50 Mable	None	None	None	None	None	None	N/A (0)	N/A (0)

N/A is not accessable. None is no time restriction. Numbers are in minutes (time to egress point no longer viable)
* Only applies if infrastructure (roads) from adjacent project is provided (even if balance of the project is not completed)
** - Based on travel route impacts not Evac Point

Scenario #	Location	NW	N	NE	EVA 1	EVA 2	EVA 3	EVA 4	EVA 5
10-C	Shingle Lime Mine Rd south of Dividend Dr @ RR tracks NE 50 Lime	None	None	None	None	None	None	N/A (30)**	N/A (0)
10-D	Shingle Lime Mine Rd south of Dividend Dr @ RR tracks NE 50 Both	None	None	None	None	None	None	N/A (30)**	N/A (0)
10-E	Shingle Lime Mine Rd south of Dividend Dr @ RR tracks ENE 50 No Development	None	None	None	None	360+	300+	180+	N/A** (100+)
10-F	Shingle Lime Mine Rd south of Dividend Dr @ RR tracks ENE 50 Marble	None	None	None	None	300+	N/A (90)**	N/A** (180)	N/A** (100+)
10-G	Shingle Lime Mine Rd south of Dividend Dr @ R R tracks ENE 50 Lime	None	None	None	None	None	N/A** (100+)	240+	N/A **(100+)
10-H	Shingle Lime Mine Rd south of Dividend Dr @ RR tracks ENE 50 Both	None	None	None	None	300+	N/A** (100+)	240+	N/A** (100+)
11-A	Lariat Rd at McNeil Rd NE 50 No Development	None	None	None	None	N/A** (100+)	N/A (60)**	360+	None
11-B	Lariat Rd at McNeil Rd NE 50 Marble	None	None	N/A	None	N/A** (100+)	N/A (60)**	N/A** (360+)	N/A** (360+)
11-C	Lariat Rd at McNeil Rd NE 50 Lime	N/A** (None)	N/A** (None)	N/A** (None)	N/A** (None)	N/A** (120)**	N/A** (240+)	None	None
11-D	Lariat Rd at McNeil Rd NE 50 Both	None	None	N/A** (None)	None	N/A** (120)**	None	None	None
12-A	Fallen Leaf Rd at Flying C Rd N 50 No Development	None	None	None	None	None	None	N/A (30)	360+
12-B	Fallen Leaf Rd at Flying C Rd N 50 Marble	None	None	N/A** (None)	None	300+	None	N/A (30)	N/A** (360+)
12-C	Fallen Leaf Rd at Flying C Rd N 50 Lime	None*	None	None	None*	None	None*	N/A** (150)	300+
12-D	Fallen Leaf Rd at Flying C Rd N 50 Both	None	None	None	None	None	None	N/A** (150)	300+
12-E	Fallen Leaf Rd at Flying C Rd NE 50 No Development	None	None	None	360+	N/A (0)**	N/A (30) **	None	None

N/A is not accessable. None is no time restriction. Numbers are in minutes (time to egress point no longer viable)
* Only applies if infrastructure (roads) from adjacent project is provided (even if balance of the project is not completed)
** - Based on travel route impacts not Evac Point

Scenario #	Location	NW	N	NE	EVA 1	EVA 2	EVA 3	EVA 4	EVA 5
12-F	Fallen Leaf Rd at Flying C Rd NE 50 Marble	None	None	None	None	N/A (0)**	None	N/A** (None)	N/A **(None)
12-G	Fallen Leaf Rd at Flying C Rd NE 50 Lime	N/A** (None)	N/A** (None)	None	N/A** (360+)	N/A (0)**	N/A (30)**	None	None
12-H	Fallen Leaf Rd at Flying C Rd NE 50 Both	None	None	None	None	N/A (0)**	None	None	None
12-I	Fallen Leaf Rd at Flying C Rd ENE 50 No Development	None	None	None	90+	360+	N/A (70)	None	None
12-J	Fallen Leaf Rd at Flying C Rd ENE 50 Marble	None	None	N/A** (None)	None	N/A** (180)**	N/A** (90)	N/A** (None)	N/A** (None)
12-K	Fallen Leaf Rd at Flying C Rd ENE 50 Lime	N/A** (None)	N/A** (None)	None	N/A (60)**	180+	N/A (60)	None	None
12-L	Fallen Leaf Rd at Flying C Rd ENS 50 Both	None	None	None	None	180+	N/A (120)	None	None
13-A	Crazy Horse Rd at Flying C Rd N 50No Development	None	N/A (0)	None	None	N/A (60)	300+	None	None
13-B	Crazy Horse Rd at Flying C Rd N 50 Marble	None	N/A (0)	N/A (None)	None	N/A (60)	None	N/A (360+)	N/A** (None)
13-C	Crazy Horse Rd at Flying C Rd N 50 Lime	N/A** (None)	N/A (0)	None	N/A** (None)	N/A (60)	N/A (80)**	None	None
13-D	Crazy Horse Rd at Flying C Rd N 50 Both	None	N/A (0)	None	None	N/A (60)	None	None	None
13-E	Crazy Horse Rd at Flying C Rd NE 50 No Development	None	N/A (30)	None	N/A (30)	None	N/A (40)	None	None
13-F	Crazy Horse Rd at Flying C Rd NE 50 Marble	None	N/A (30)	None	None	300+	None	N/A** (None)	N/A** (None)
13-G	Crazy Horse Rd at Flying C Rd NE 50 Lime	N/A** (None)	N/A (30)	None	N/A (30)	None	N/A (40)	None	None
13-H	Crazy Horse Rd at Flying C Rd NE 50 Both	None	N/A (30)	None	None	None	None	None	None
14-A	White Rock Rd north of Valley View Pkwy W 50 No Development	N/A** (150)	150+	None	360+	360+	None	None	None

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* Only applies if infrastructure (roads) from adjacent project is provided (even if balance of the project is not completed)
** - Based on travel route impacts not Evac Point

Scenario #	Location	NW	N	NE	EVA 1	EVA 2	EVA 3	EVA 4	EVA 5
14-B	White Rock Rd north of Valley View Pkwy W 50 Marble	N/A** (150)	120+	None	300+	None	None	None*	None*
14-C	White Rock Rd north of Valley View Pkwy W 50 Lime	N/A **(150)	N/A** (150+)	None	N/A** (360+)	300+	N/A** (None)	None	None
14-D	White Rock Rd north of Valley View Pkwy W 50 Both	N/A** (150)	120+	None	300+	None	None	None	None
14-E	White Rock Rd north of Valley View Pkwy WNW 50 No Development	None	None	None	N/A** (150)	N/A (90)	N/A** (240+)	N/A** (210+)	N/A (90+)
14-F	White Rock Rd north of Valley View Pkwy WNW 50 Marble	None	None	None	N/A** (150)	None	None	N/A** (300+)	N/A** (None)
14-G	White Rock Rd north of Valley View Pkwy WNW 50 Lime	N/A** (None)	N/A** (300+)	N/A** (None)	N/A** (180+)	N/A** (90)	N/A** (240+)	300+	N/A** (90)
14-H	White Rock Rd north of Valley View Pkwy WNW 50 Both	None	None	None	N/A (150)	None	240+	None	None
15-A	Valley View Pkwy at Blackstone Pkwy W 50 No Development	120+**	90+**	360+	N/A** (240+)	N/A** (240+)	N/A** (360+)	N/A— (None)	360+
15-B	Valley View Pkwy at Blackstone Pkwy W 50 Marble	240+	120+	None	210+	None	300+	N/A** (None)	N/A** (None)
15-C	Valley View Pkwy at Blackstone Pkwy W 50 Lime	N/A** (200+)	N/A** (90)	300+	N/A** (240+)	120+	N/A** (360+)	None	None
15-D	Valley View Pkwy at Blackstone Pkwy W 50 Both	240+	300+	None	210+	None	300+	None	None
15-E	Valley View Pkwy at Blackstone Pkwy WNW 50 No Development	None	None	None	N/A** (0**)	N/A (40)	N/A** (180)	N/A (** (90)	90+
15-F	Valley View Pkwy at Blackstone Pkwy WNW 50 Marble	None	None	None	N/A **(0)	None	N/A** (180)	N/A* (180+)	N/A* (None)
15-G	Valley View Pkwy at Blackstone Pkwy WNW 50 Lime	N/A** (None)	N/A** (None)	180+	N/A (0)	N/A** (60)	N/A** (100+)	90+	180+
15-H	Valley View Pkwy at Blackstone Pkwy WNW 50 Both	None	None	None	N/A (0)	None	N/A** (100+)	210+	None

N/A is not accessable. None is no time restriction. Numbers are in minutes (time to egress point no longer viable)
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** - Based on travel route impacts not Evac Point

Scenario #	Location	NW	N	NE	EVA 1	EVA 2	EVA 3	EVA 4	EVA 5
16-A	East of Aspen Meadows Dr and Cornerstone Dr W 50 No Development	None	150+	240+	N/A (0)	N/A (50)	N/A** (100)	N/A	N/A
16-B	East of Aspen Meadows Dr and Cornerstone Dr W 50 Marble	None	300+	None	N/A (0)	120+	N/A** (100)	N/A** (240+)	N/A** (120)
16-C	East of Aspen Meadows Dr and Cornerstone Dr W 50 Lime	N/A** (None)	N/A** (180+)	N/A** (300=)	N/A (0)	N/A (50)	N/A** (100)	300+	90+
16-D	East of Aspen Meadows Dr and Cornerstone Dr W 50 Both	None	300+	None	N/A (0)	None	N/A** (100)	None	None
16-E	East of Aspen Meadows Dr and Cornerstone Dr SW 50 No Development	N/A (0)	300+	None	N/A** (100+)	None	N/A** (None)	None	None
16-F	East of Aspen Meadows Dr and Cornerstone Dr SW 50 Marble	N/A (0)	None	None	N/A** (0)**	None	None	None	None
16-G	East of Aspen Meadows Dr and Cornerstone Dr SW 50 Lime	N/A (0)	300+	None	N/A** (0)**	None	N/A** (None)	None	None
16-H	East of Aspen Meadows Dr and Cornerstone Dr SW 50 Both	N/A (0)	None	None	N/A** (0)**	None	None	None	None

As indicated in the footer, N/A means that the evacuation point was not used for that scenario. This point could be used for local residents to evacuate but is not used for the Project Site modeling. The single * indicates that the time shown is valid only if the infrastructure from the adjacent project was constructed and available. The double ** indicates that the time value (number in the cell of the matrix may be based on the travel route rather than the actual evacuation point. This applies when the route would be back into the fire path in a timeframe that would make this route unsafe.

N/A is not accessable. None is no time restriction. Numbers are in minutes (time to egress point no longer viable)
* Only applies if infrastructure (roads) from adjacent project is provided (even if balance of the project is not completed)
** - Based on travel route impacts not Evac Point

Modeling Summary

In a worst-case scenario for the static fire modeling, flame lengths of 55'+/- may be possible when the fire is running upslope, in a continuous fuel bed (chaparral fuel), in line with the wind, on a very dry hot day. This is based on six-foot chaparral fuel beds (Sh5 fuel) and eight-foot beds in the Chaparral specific model run.

Using the Minimum Travel Time feature of FlamMap, it is possible to project the time it might take for a given fire scenario to travel the distance from the origin to each of the evacuation points within the Project Site and when they might impact the Evacuation Points. These results are provided for each scenario in the appendix and summarized in the matrix.

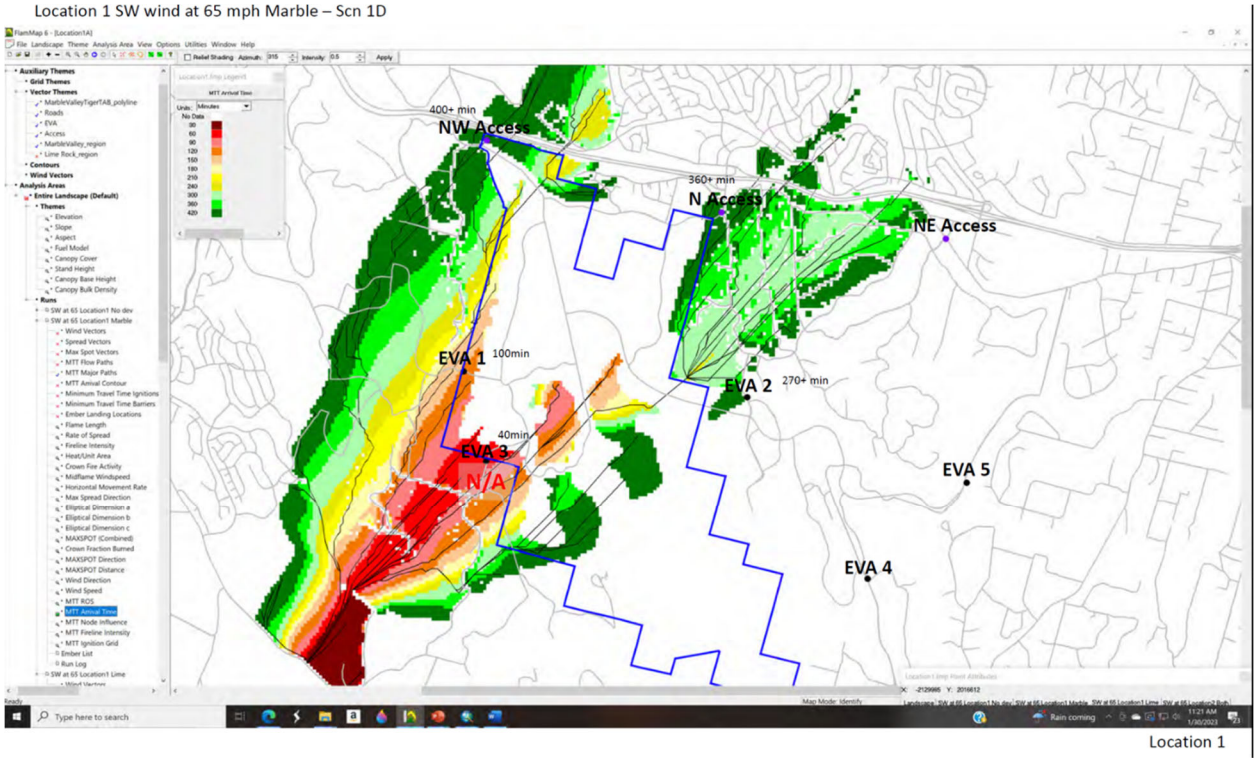


Figure 40 – Example Scenario Modeling Output

In all scenarios, burn-through of the community is not modeled or expected given the fuel modification/defensible space zones, hardened structures and restrictions on vegetation which will be in place by the Regulation and standards required by the Fire Department for new development within the Very High Fire Hazard Severity Zones. This does not preclude structure ignition or damage on the perimeter of the community in this modeling, only that the fire will not continue through the community.

In a recent study (2019) researchers found that housing density plays a role in the number of structures which are damaged or destroyed in wildland fires:

> *Looking at fire ignitions, large fires, and structures burned, we explored the importance of climatic and human variables for explaining fire and structure loss patterns across three diverse California landscapes, under current and future*

> *climate (hot-dry or warm-wet) and land use (rural or urban residential growth) scenarios. Across regions, we found that housing and human infrastructure were more responsible for explaining fire ignitions and structure loss probability. Large fires were better explained by climate, topography, and fuel variables. The differing strengths of these relationships interacted with the climate and land use scenarios, resulting in variability across regions in the relative importance of climate and housing patterns on fire and structures burnt. Focusing only on empirical housing density and structures burnt, we found that most structure loss occurred in areas with low housing density (from 0.08 to 2.01 units/ha), and as such, expansion of rural residential land use generally increased projected structure loss probability in the future. Both the historical results and the future projections highlight that future changes are likely to be complex and will result from a range of interacting factors. Climate change will be important to consider for managers and policy makers in some, but not all regions. In all areas, land use change merits increased attention, as local policy decisions can influence future patterns of development and exposure of structures to risk of loss in large wildfires.* Syphard, A. D., Rustigian-Romsos, H., Mann, M., Conlisk, E., Moritz, M. A., & Ackerly, D. (2019). The relative influence of climate and housing development on current and projected future fire patterns and structure loss across three California landscapes. Global Environmental Change, 56, 41–55. https://doi.org/10.1016/J.GLOENVCHA.2019.03.007

The findings of this research make sense in that denser developments will have a defined interface (rather than an intermix condition), overall vegetation within the community is generally less and is managed within 100 feet of the structures. These management areas tend to overlap in denser communities, forming a homogenous area within the wildland where conditions for continue burning are greatly reduced or eliminated. Add to this, structures which are hardened to radiant and convected heat, have ember protects and are set far enough from the native fuels to not have direct flame contact from the wildland makes the ignition less likely. In the event that a structure was to ignite, all of the residential units and support structures of any real size are protected by automatic fire sprinklers which have a history of holding fires to the room or area of origin in most cases, make the likelihood of a conflagration or community burn-through unlikely.

The size, location and configuration of the Project Site make it unlikely that a fire will impact the entire Project Site at a single time, but rather the fire will impact sections of the project interface over a period of time which will allow for resources to be redistributed and for evacuation opportunities after the fire front has passed a specific location. Travel within the Project Site should be viable at all times, given the distance from the wildland fuels and the protection features which will be provided. The fire scenarios which have been modeled are extreme and the results indicate the fire will be traveling at a rate faster than fire suppression activity will allow for control lines. The fire department would be expending efforts to keep evacuation routes open, protect structures where it was safe to do so and to work on indirect actions in an effort to have a positive effect on the fire path and the assets at risk. Interior areas of the community not shown as areas burned (colored areas in Figure 40 and in the appendixes) will be capable of use as “areas of refuge” when not in the direct line a travel for the fire.

Water Supply and Infrastructure

No water delivery facilities are present on the Project Site. El Dorado Irrigation District (EID) provides potable water to over 100,000 people in El Dorado County through two primary interconnected water systems in its service area—the El Dorado Hills system and the Western/Eastern system. The El Dorado Hills water system obtains its primary supplies under rights and entitlements from Folsom Reservoir, while the Western/Eastern system derives its supplies from sources under rights from the South Fork American River and Cosumnes River watersheds. The Project Site lies within EID's El Dorado Hills supply area.

The El Dorado Irrigation District 2019 Water Supply and Demand Report and 2020 Urban Water Management Plan detail water supply and the timing and need for various improvements throughout the district. Based on reviews of these recent reports and the revalidation memorandum, the data and supply availability conclusions in the WSA relating to water supply and consumption remain valid, and water is available for the Project Site for residential use, irrigation, and fire flow.
The specifics of the water supply are well documented in the Project Site EIR.

El Dorado Hills Fire Department

TABLE B105.1(1)
REQUIRED FIRE FLOW FOR ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

FIRE-FLOW CALCULATION AREA (square feet)	AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE FLOW (gallons per minute)	FLOW DURATION (hours)
0–3,600	No automatic sprinkler system	1,000	1
3,601 and greater	No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2) at the required fire-flow rate
0–3,600	Section 903.3.1.3 of the *California Fire Code* or Section 313.3 of the *California Residential Code*	1,000	1
3,601 and greater	Section 903.3.1.3 of the *California Fire Code* or Section 313.3 of the *California Residential Code*	½ Value in Table B105.1(2) (min 1,000 gpm)	2
MAJOR SUBDIVISIONS (5 Parcel or Greater)			
0–3,600	Section 903.3.1.3 of the *California Fire Code* or Section 313.3 of the *California Residential Code*	500	1
3,601 and greater	Section 903.3.1.3 of the *California Fire Code* or Section 313.3 of the *California Residential Code*	½ Value in Table B105.1(2) (min 750 gpm)	1

TABLE B105.2
REQUIRED FIRE FLOW FOR BUILDINGS OTHER THAN ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE FLOW (gallons per minute)	FLOW DURATION (hours)
No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2)
Section 903.3.1.2 of the *California Fire Code*	25% of the value in Table B105.1(2)[b]	Duration in Table B105.1(2) at the reduced flow rate

b. The reduced fire flow shall be not less than 1,500 gallons per minute.

In accordance with the amended Fire Codes (2020) for the respective Fire Department areas, fire flow requirements for the Project are shown to the left and on the next page.

The water system will be designed and constructed in accordance with the adopted fire code(s), NFPA standards and local requirements as stated in the fire departments adopted and published requirements. For example, El Dorado Hills Standard #D-003 Water Supplies for Suburban and Rural Fire Fighting - 3/23/2022.

Where portions of the water system are not gravity fed, emergency power will be provided for the duration required in the code.

Figure 41 – Amended Fire Flow Requirements for El Dorado Hills Fire Department Area

El Dorado County Fire Protection District

TABLE B105.1(1)
REQUIRED FIRE FLOW FOR ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

FIRE-FLOW CALCULATION AREA (square feet)	AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE FLOW (gallons per minute)	FLOW DURATION (hours)
0–3,600	No automatic sprinkler system	1,000	1
3,601 and greater	No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2) at the required fire-flow rate
0–3,600	Section 903.3.1.3 of the *California Fire Code* or Section 313.3 of the *California Residential Code*	1,000	1
3,601 and greater	Section 903.3.1.3 of the *California Fire Code* or Section 313.3 of the *California Residential Code*	½ Value in Table B105.1(2) (min 1,000 gpm)	2
MAJOR SUBDIVISIONS (5 Parcel or Greater)			
0–3,600	Section 903.3.1.3 of the *California Fire Code* or Section 313.3 of the *California Residential Code*	1,000	1
3,601 and greater	Section 903.3.1.3 of the *California Fire Code* or Section 313.3 of the *California Residential Code*	½ Value in Table B105.1(2) (min 1,000 gpm)	2
OTHER RESIDENTIAL DEVELOPMENT			
0–3,600	Section 903.3.1.3 of the *California Fire Code* or Section 313.3 of the *California Residential Code*	500	1
3,601 and greater	Section 903.3.1.3 of the *California Fire Code* or Section 313.3 of the *California Residential Code*	½ Value in Table B105.1(2) (min 750 gpm)	1

TABLE B105.2
REQUIRED FIRE FLOW FOR BUILDINGS OTHER THAN ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE FLOW (gallons per minute)	FLOW DURATION (hours)
No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2)
Section 903.3.1.2 of the *California Fire Code*	25% of the value in Table B105.1(2)[b]	Duration in Table B105.1(2) at the reduced flow rate

b. The reduced fire flow shall be not less than 1,500 gallons per minute.

Figure 42 - Amended Fire Flow Requirements for EDCFPD Area

According to EID's 2022 Water Supply and Demand Report (El Dorado Irrigation District, 2022), the district has available water supply in the Western/Eastern supply area of approximately 30,580 AF (acre feet). EID's adopted Integrated Water Resources Master Plan (HDR, 2013) describes new water supply and transmission infrastructure necessary to increase the availability of water supply for the Western/Eastern Supply area.

An overall potable water system is in place for the El Dorado Hills and the Cameron Park communities, including off-site transmission mains, storage tanks, and booster stations. Development of the Plan Area requires the construction and extension of transmission and distribution water mains that will be constructed in phases. (Refer to Figure 43.)

Components of the overall water system include off-site transmission mains, on-site and/or off-site storage tanks, booster stations, distribution mains, and laterals. The installation of water

improvements will be performed in a multi-phased approach. The initial water plan includes the construction of necessary backbone infrastructure to ultimately serve the entire assumed maximum needs of the Plan Area. The off-site infrastructure required to convey water to the Plan Area would be constructed to meet Plan Area needs. This includes the transmission mains and any other components needed to physically transport water to the Plan Area from the EID Western/Eastern water supply region.

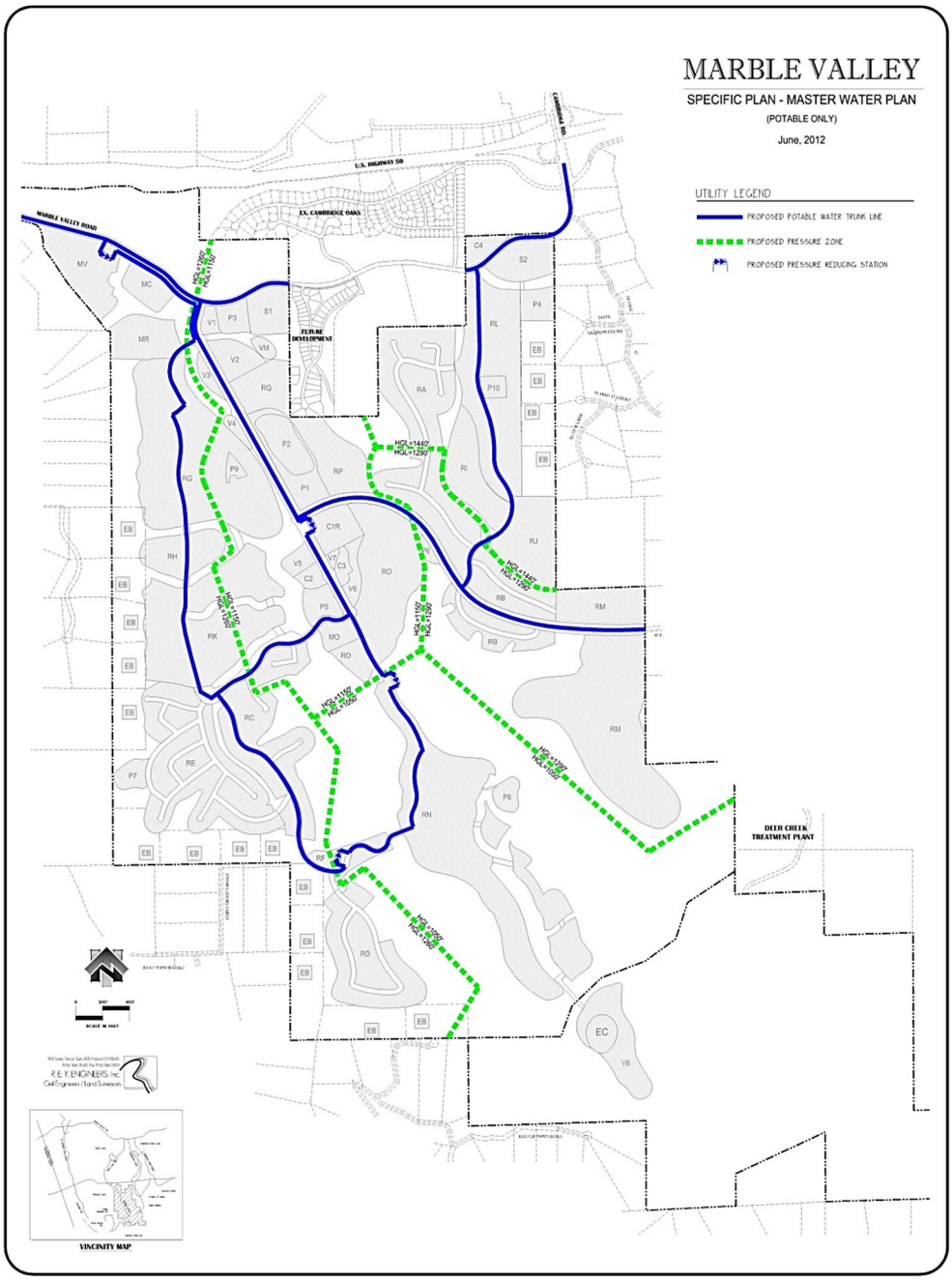


Figure 43 - Marble Valley Specific Plan Master Water Plan Map

Electric Power Lines

While electrical lines are the cause of fires all over the state, utilities in the state of California are taking steps to increase the safety of all power lines by:

1. Undergrounding distribution lines
2. Improving safety on transmission lines through the replacement of equipment before it fails
3. Increased routine inspections.
4. The use of "covered conductors" rather than "bare wire" as has been used in the past.
5. Expanded line clearance, increased hazard-tree assessments and removals, ensuring adequate cleared brush at the base of poles/towers.
6. Public Safety Power Shut Offs during high-risk weather events.
7. Installing and monitoring of over 2,000 Remote Automated Weather Stations, expanded use of Artificial Intelligence/Machine Learning capabilities (AI/ML) for improved forecasting and the installation of High-Definition Cameras for real-time monitoring of high-risk areas during extreme weather events.
8. Installation of Sectionalizing Devices and Fast Acting Fuses to decrease the risk of fire inducting events.

The above measures are regional actions which should result in a decrease in fire caused by the overall electrical grid. Many of the fires caused by the electrical distribution system occur during extreme fire weather conditions. Any reduction in these types of fires within the region increases the overall protection to the Project Site by lowering the probability of a large fire.

Fire Protection Resources

Impacts During Construction

Prior to combustible construction on site the Fire Department requires that "all-weather" fire department access roadways, fire hydrants (or approved water source alternative), and initial fuel modification/defensible space zones (bare earth is acceptable at this point) are installed and approved prior to the "framing stage". Prior to C of O (certificate of occupancy), the Fire Department requires that all fire department life safety systems (fire sprinklers, standpipes if applicable), fire lanes, street signs, addressing, wayfinding if appropriate, defensible space requirements and structure hardening as required by the various laws, codes, ordinance and standards enforced by the fire department and building/planning agencies be in place, tested, inspected and approved.

Impacts Over the Life of the Project

Maintenance requirements for each of the safety systems or devices are assigned to specific entities (homeowners, Home Owner's Associations (HOA), Local government). Repair/replacement and maintenance of these systems will be established in the CC&R's for the homeowners and HOA(s), while the local governmental agency is responsible for the public improvements in the Right of Way (ROW). In some cases, a Zone of Benefit (ZOB) may be established to provide for different levels of service, or to raise additional revenue within specific areas of a county service area.

The responsibilities and funding source for the common areas (not in the ROW) are to be set in the CC&R's. Unless otherwise provided in the CC&Rs, homeowners are responsible to maintain

improvements to their fee-title properties while HOA's maintain common areas and other improvements either owned by the HOA or controlled by the HOA if established by the CCR&s.

EVA's (Emergency Vehicle Access) will be maintained in perpetuity by the appropriate entity or entities which are benefited by the improvement. In the case of public streets or ROW's this will be the governmental agency which owns the underlying property. For improvements on private property, the HOA(s) or other legal entity (such as a private property owner or ZOB) is responsible for the common area(s) on which the improvements (EVA) have been made.

Fuel modification/defensible space zones, installed automatic fire sprinklers (except the NFPA13D system in one and two-family dwellings) and defensible space are inspected by the fire department on a routine basis (annually or bi-annually in most cases) and in the case of fire sprinklers (NFPA 13 and 13R), they are inspected and certified by third-party venders on a five year interval.

Fire Suppression Resources

Fire Department resources and capabilities have been discussed in various documents over the development of the Project Site. The following is a summary of those overall resources and capabilities:

> *Fire protection services in El Dorado County are provided by 13 separate fire districts, one city fire department, the California Department of Forestry and Fire Protection, and the U.S. Forest Service. Two fire protection districts serve the proposed project site: the El Dorado Hills County Water District (which includes the EDHFD) serves the western portion of the project site, and the El Dorado County Fire Protection District (also referred to as the El Dorado County Fire District or El Dorado County Fire) serves the eastern portion. The final map boundary line must follow the existing fire boundary line to insure no residential or commercial lot is split between two fire districts.*
>
> *<u>El Dorado Hills Fire Department</u>*
> *The EDHFD covers approximately 112 square miles and serves a population of approximately 55,000 with five fire stations and five response zones (El Dorado Hills Fire Department 2020). The department currently has 76 paid personnel (El Dorado Hills Fire Department 2020). As stated in the Regulatory Setting, Policy 5.1.2.2 in the County General Plan identifies that the minimum level of service for fire district responses should be an 8-minute response to 80 percent of the population for a Community Region, and a 15–45-minute response time for a rural region (El Dorado County 2004). Fire Station Number 86 would serve the western portion of the project area. Fire Station Number 86, which lies approximately 1 mile northwest of the project site, has average response times in the plan area of between 4:28 and 5:27. (Hobert pers. comm.). This fire station is staffed with three fire personnel and is equipped with an advanced life support engine and a wildland urban interface engine (Hobert pers. comm.).*

The El Dorado Hills Fire Department Five Year Plan for 2013–2018, adopted in October 2013, serves as a projection for the department's growth over the next 5 years. This is the most recent five-year plan in effect at the time of publication of this Draft EIR. The plan identifies historical and projected residential and commercial development in the El Dorado Hills Fire Department's (EDHFD) service area, including the location, total projected units, and population associated with residential development and the square footage and location of anticipated commercial development. The plan summarizes annual incidents and calls for service from 2007 through 2017. The plan identifies existing staffing and uses that, along with the development data, to predict future department staffing needs. In addition, it describes existing and proposed facilities and apparatus, including a proposed 21-acre training facility in the El Dorado Hills Business Park (El Dorado Hills Fire Department 2013.

The plan includes maps showing driving times from each of the fire district's existing stations and the proposed Business Park Station to the district's more populated areas. The maps do not reflect total response time, which includes reporting the emergency and call processing (El Dorado Hills Fire Department 2013). Driving times depicted on the maps range from 4.5 to 6.5 minutes (El Dorado Hills Fire Department 2013).

The plan describes existing and future department revenues and their sources, including property taxes and development fees. The plan notes a decrease in property tax revenues over the past 5 years due to the economic downturn and associated lack of development and indicates an increase beginning in the 2013–2014 fiscal year (El Dorado Hills Fire Department 2013). EDHFD imposes development fees on all new development to ensure the development pays its share of capital costs associated with adequate facilities and equipment to mitigate its impacts and to ensure maintenance of the level of service provided to existing residents within its jurisdiction. The department has historically imposed development fees on a per-dwelling-unit basis, converted to a per-square-foot fee for industrial and commercial development (El Dorado Hills Fire Department 2013). The plan reflects a new fee structure, consistent with that used by the Sacramento Metropolitan Fire District and based on input from the other El Dorado County fire districts, which is based on square footage for both commercial and residential applications (El Dorado Hills Fire Department 2013). While the department indicates that a development impact fee of $1.29 per square foot is justified, its Board of Directors elected to assess development at a rate of $1.16 per square foot and recover the remainder from its general reserve funds, reserving the option to adjust the fee upward or downward in the future based on its annual review (El Dorado Hills Fire Department 2013).

EDHFD would serve the western portion of the project site while the El Dorado County Fire Protection District would serve the eastern portion. The VMVSP includes a location for a future EDHFD fire facility in the southwest portion of the project site, near the border with China Diggins Road (Marble Valley

Company LLC 2020). The project proponent and EDHFD would determine the exact location and parcel size in the future, should the need arise, including any utilities and infrastructure needed to serve the facility and would prepare a separate CEQA document at that time.

The proposed project site would be served by the closest fire station, Fire Station 86 of the EDHFD. This station serves 2,998 homes and is located approximately 1 mile from the project site on Bass Lake Road (El Dorado Hills Fire Department 2012). Based on the annual report of the EDHFD for Code 3 Emergencies, Fire Station 86 response times are under 7 minutes (El Dorado Hills Fire Department 2012). The standard for the fire department is a 6-minute travel time, 90 percent of the time for all emergency calls (Lilienthal pers. comm.). Because the proposed project is proposing to annex to a Community Region, it would have to meet the 8-minute minimum response time for 80 percent of the population. The EDHFD anticipates it would meet a 6-minute response time for the VMVSP area even without the additional fire station included in the project because of the proximity of Fire Station 86 (Lilienthal pers. comm.). Thus, based on the County General Plan minimum requirements and the fire department standards, the level of service currently achieved would be sufficient.

<u>El Dorado County Fire Protection District</u>
The El Dorado County Fire Protection District serves 281 square miles and has a population of 75,000 with 14 stations (El Dorado County Fire 2020). The department consists of 74 total personnel (Alvarado pers. comm.). Station 28 would serve the eastern portion of the project site. This fire station is located approximately 4 miles northeast of the project site, and the average response to the project site would be approximately 12.5 minutes (Alvarado, pers. comm.)

The El Dorado County Fire Protection District Five Year Plan 2011–2016 serves as a set of guidelines to address identified needs over a 5-year period. The district's vision and guiding principles, history, organization, and sources of revenue are outlined, and the district's facilities, apparatus, and response to incidents are described. The plan uses this information to identify personnel and equipment needs as well as methods to address those needs.

The plan indicates that the El Dorado County Fire Protection District—also referred to as the El Dorado County Fire District or El Dorado County Fire—responds to 4.6 times more calls than the average number of responses of all 14 other fire agencies in El Dorado County (El Dorado County Fire Protection District 2011). The plan includes bar charts that show a 15.7 percent increase in call volume over the previous 8 years, and a 19 percent reduction in average response time since 2002, with an average response time of 9 minutes and 19 seconds (El Dorado County Fire Protection District 2011).

The plan also describes existing and future department revenues and their sources, including property taxes and development fees. Property taxes constitute

the district's primary source of funding; the district receives 13 percent of the 1 percent Ad Valorem Tax collected by the County within the district's boundaries (El Dorado County Fire Protection District 2011). The plan notes a decrease in property tax revenues beginning in the 1992–1993 fiscal year, associated with the transfer of 10 percent of each special district's property tax revenue to school funding through the Educational Revenue Augmentation Fund, and indicates that the annual loss to the district exceeds $1.1 million dollars (El Dorado County Fire Protection District 2011). In addition to the Ad Valorem Tax funding, the district receives funding from voter-approved special taxes in some areas of the district; this funding provides approximately $510,000 of additional annual revenue (El Dorado County Fire Protection District 2011).

Fire Station 28, located approximately 4 miles from the project site on Ponderosa Road in Shingle Springs, is the closest El Dorado County Fire Protection District fire station to the project area. It serves Red Hawk Casino and the communities of Shingle Springs, South Cameron Estates, and Crazy Horse. The average response time for the El Dorado County Fire Protection District from 2002 to 2010 was approximately 9 minutes, and approximately 8:43 minutes in 2010 (El Dorado County Fire Protection District 2011:18). Response times have been reduced by 19 percent since 2002. Although this is slightly over the 8-minute minimum response time, several factors would address this deficit. Because the project area would be served by the EDHFD and the El Dorado County Fire Protection District, the proximity of the project site to the nearest fire stations, and the inclusion of a future fire station on the project site, it is anticipated that the County General Plan requirements would be met. No new fire protection facilities beyond those planned within the project or alterations to existing facilities would be needed.

Utilizing the "boundary drop" agreement, which is in place between the local fire departments, the closest resource responses to an emergency regardless of jurisdiction, E89 from Cameron Park (3200 Country Club Drive, Cameron Park) could be the closest fire department resource, if available.

El Dorado County Fire Protection District also owns a vacant parcel APN 119-295-002 located in the area of Crazy Horse Rd and Hemmingway Ct on the western side of the district and immediately north of the Project Site. Potential future development of this parcel would add to the resources available in the event of an emergency.

Operational Considerations

How to complete the evacuation, when to evacuate, how long it will take to get the last person out of harm's way, and to where are they evacuating, are all factors that need to be considered when making tactical decisions on wildfires. Normally the majority of the effort is put towards fire suppression on the active fire line if conditions warrant it; indirect attack if not. When people are in "harm's way," the situation shifts dramatically. The protection of the egress pathways, the structures themselves, and the area where refuge can be found become the priority.

The decision to "Shelter in Place" is never the first choice and is not a first choice for the Project Site. Getting people "out of harm's way" is always the preferred option. Not every scenario can be anticipated, there will be scenarios that would require the incident commander(s) or field officer of the fire and law enforcement agencies to decide on how to protect the citizens when emergent conditions arise. Figure 44 provides a simple decision tree for evacuation vs. protecting people in place.

Evacuation is always the preferred option but sometimes, circumstances may generate conditions where moving an "at risk" population will place them in more danger. It should be noted that most evacuation scenarios are generated by large fires burning into communities. These fires would have already been burning for a period of time and would, no doubt, have been discovered. Emergency personnel would be working on the decisions below to determine where evacuation is warranted. The modeling shows that if the fire reaches certain points, evacuation is not a likely choice. If there is not enough time to safely move the population at risk to an uninvolved/safe area, consideration of where to best protect them is the next action on the decision tree.

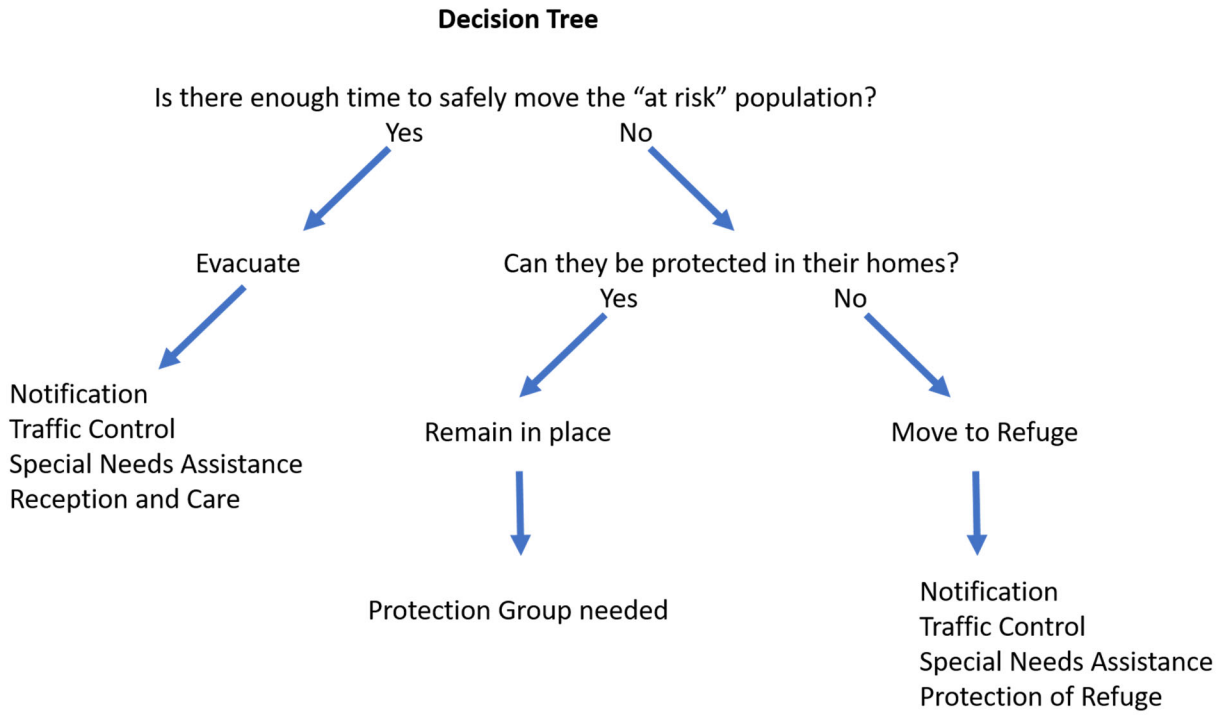


Figure 44 – Evacuation Decision Tree

In planned communities, a legal entity (normally an HOA) is responsible for common areas and the maintenance of community resources. This often includes lighting, landscape, parks, pools and in some communities' roads, bridges, and open spaces, and when the housing products include, joint land ownership, and even property insurance. Where the community has been designed and developed with wildland fire defenses such as fuel modification/defensible space zones, greenbelts, roadside clearance for evacuation routes and/or special maintenance areas within the community, it is the HOA or other legal entity that is responsible for maintaining

these common features. As such, there is a high probability that this ongoing maintenance will occur as required and as stated in the organizational documents which were put in place when the community was established. It also makes a single entity accountable and simplifies the inspection process as well as streamlines the communications process (notices, code and standards updates, compliance, verification of maintenance).

The building and fire codes and some county and state wildland fire regulations are based on requirements for the land or building owner. As such, there is not necessarily an equal level of compliance at each and every structure, even if they were constructed at the same time, under the same requirements. In wildland fire safety, when structures are not separated by a large distance (30 feet or more), the risk to one structure can be caused by the risk to the adjacent structure even when the first owner has done everything right in terms of wildland fire protection. In planned communities, this is not the case. Common areas are managed as one entity, and the HOA has the power to make each homeowner comply with the regulations adopted by the local fire authority as an obligation of its fiduciary function to keep the entire community safe. This is why planned communities are significantly different in the ability to keep the community safe from wildland fires. This is why a "systems approach" is possible.

This "systems approach" begins with the community design. Larger, planned communities generally tend to use a defined interface rather than an intermix with respect to the wildland perimeter of the development.

Cluster development (higher density with more open space) with defined perimeter protection provides for a "protective bubble" around the development. By controlling the interior (vegetation, configuration and defensible space) and providing an adequate distance (fuel modification/defensible space, greenbelts, selected agriculture crops (vineyards, certain types of orchards, row crops), fuel breaks and fire breaks) the combination of these elements creates a system for the protection of the community.

The current codes and standards coupled with the design of the current fuel modification/defensible space zone requirements provides for a community in which fire is unlikely to burn through the community (burn-through) when all portions of the system are in place and functioning as designed.

Provisions are in place to allow for approved maintenance in the fuel modification/defensible space areas so that the safety margin can be maintained.

> *2.1.2 Fire Safe Activities Exemption Actions taken pursuant to an approved Fire Safe Plan for existing structures or in accordance with defensible space maintenance requirements for existing structures as identified in California Public Resources Code (PRC) Section 4291 are exempted from the mitigation requirements included in this ORMP. Oak resources impacts for initial defensible space establishment for new development are not exempt from the mitigation requirements included in this ORMP. After establishment of defensible space for new development, maintenance of that defensible space thereafter is exempt from the mitigation requirements included in this ORMP. In addition, fuel modification*

> *activities outside of defensible space areas that are associated with fuel breaks, corridors, or easements intended to slow or stop wildfire spread, ensure the safety of emergency fire equipment and personnel, allow evacuation of civilians, provide a point of attack or defense for firefighters during a wildland fire, and/or prevent the movement of a wildfire from a structure to the vegetated landscape, where no grading permit or building permit is applicable, are exempted from the mitigation requirements included in this ORMP.* (El Dorado County Oak Resources Management Plan, September 2017, Page 6)

Risk Reduction Measures

Risk Reduction measures which are required by codes, ordinances and standards include:

a) All dwelling units and most large commercial buildings will be protected with automatic fire sprinklers. (Fire department plan check and inspections ensure compliance)

b) The Project Site has increasing housing density and used a consolidated design to reduce or eliminate, where possible, wildland fuels within the interior of the Project Site and keep the edge of the Project Site as an identifiable interface with appropriate fuel breaks, fire breaks and fuel modification/defensible space zones. (Fire department plan check and inspections ensure compliance)

c) The Project Site has been designed to avoid and minimize low-density urban development patterns or leapfrog-type developments (i.e., those with undeveloped wildland between developed areas). (Fire department plan check and inspections ensure compliance)

d) Decreasing the extent and amount of "edge," or interface area, where development is adjacent to undeveloped wildlands. (Fire department plan check and inspections ensure compliance)

e) The Project Site has/will create buffer zones and defensible space within and adjacent to the development, with particular attention to ensuring that vegetation will not touch structures or overhang roofs. The Project will establish the legal obligations within the CCR's to ensure that defensible space measures are retained over time. (Implementation of Fire Safe Plan, Fire department plan check and inspections ensure compliance)

f) Undergrounding of power lines will be accomplished in the entire Project Site. (Fire department plan check and inspections ensure compliance)

g) The Project Site design attempts to limit development along steep slopes and amidst rugged terrain, so as to decrease exposure to rapid fire spread and increase accessibility for firefighting. Sites which have wildland fuels below (lower than the project structures) will have additional protections provided with radiant heat walls, increased built-in fire protection features and/or placement of the structure so that the impacts of "underslung fuels" are reduced to a level of acceptable risk. (Implementation of Fire Safe Plan, Fire department plan check and inspections ensure compliance)

h) Fire hardening structures and homes in accordance with Chapter 7A of the Building Code, Section R337 of the Residential Code and the specific requirements of the fire department during the development review process for the site-specific locations.

(Implementation of Fire Safe Plan, Fire department plan check and inspections ensure compliance)

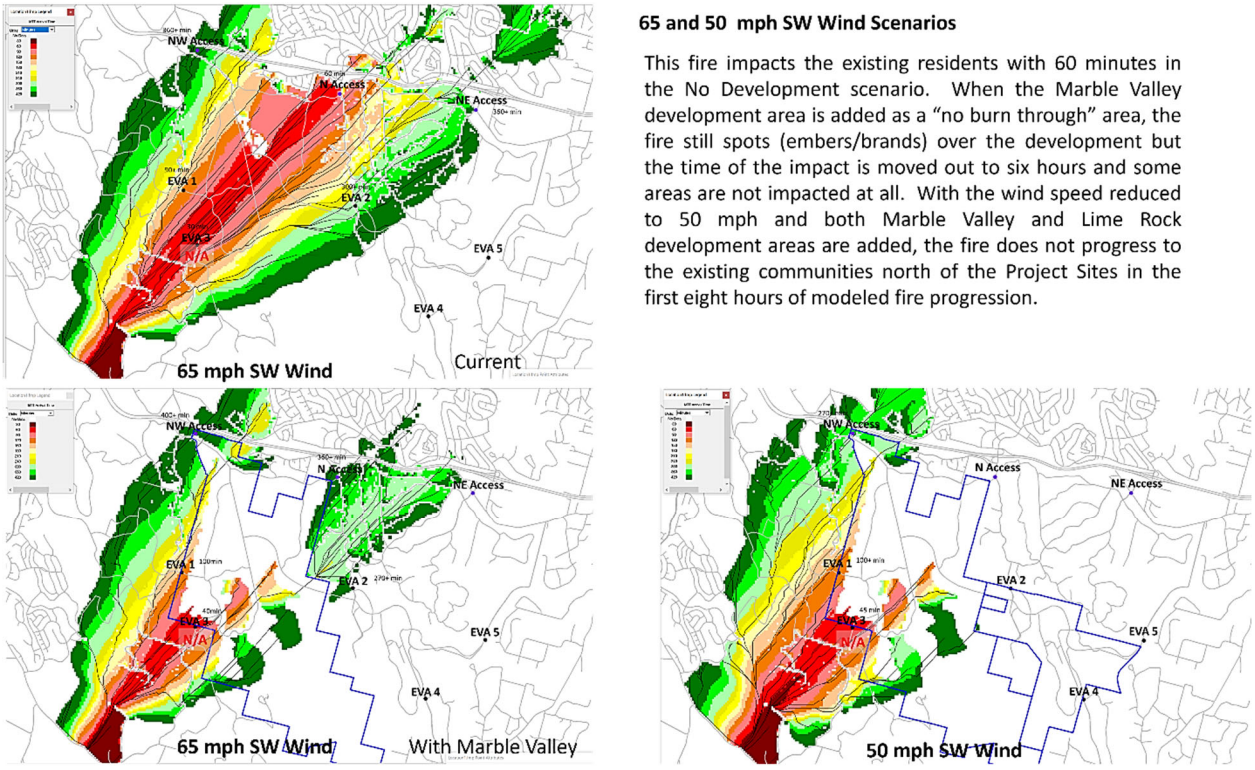
i) Siting structures and features to maximize the role of low-flammability landscape features and roadways that may buffer the development from fire spread. (Implementation of Fire Safe Plan, Fire department plan check and inspections ensure compliance)

j) The Project will expand existing fire resources in the region (new fire station site within the development). (Developer Agreement with Fire Department, participation in fire district)

k) Placement of development within the existing or planned ingress/egress and potential evacuation routes to efficiently evacuate the project population and the existing community population, consistent with evacuation plans, while simultaneously allowing emergency access. (Implementation of Fire Safe Plan, Fire department plan check and inspections ensure compliance)

Additional Regional Benefits

In addition to the project specific risk reduction measures, the project, in and off itself, provides for some additional protection to existing communities where it provides a buffer of non-wildland fuels between some of the fire scenarios and the existing communities. Using the modeling results to illustrate this point, in Figure 45, the graphic provides a comparison of the fire behavior for a "No Development" scenario with a scenario where the Marble Valley project has been completed. Significant additional time is provided to the existing communities to the north of the Project Site. The comparison then provides the modeling for a fire with 50 mph winds rather than 65 mph winds from the SW (same fire origin). At 50 mph, the fire does not continue to burn across the Marble Valley site but does continue into the adjacent communities to the north as with the previous scenarios. Each scenario has its own impacts and benefits but, in most cases, where the new development is between the origin of the fire and the existing community, there is a benefit in terms of additional time to evacuate or the fire simply not getting the existing community at all.



65 and 50 mph SW Wind Scenarios

This fire impacts the existing residents with 60 minutes in the No Development scenario. When the Marble Valley development area is added as a "no burn through" area, the fire still spots (embers/brands) over the development but the time of the impact is moved out to six hours and some areas are not impacted at all. With the wind speed reduced to 50 mph and both Marble Valley and Lime Rock development areas are added, the fire does not progress to the existing communities north of the Project Sites in the first eight hours of modeled fire progression.

Figure 45 - Example of Regional Benefits (Wildfire)

With respect to the tasks as outlined in the California Attorney General's "*Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act*" the report has the following conclusions:

1. **Determination of project impact will substantially impair an adopted emergency response plan or emergency evacuation plan;**

   The Project Site's general area does not have an adopted emergency evacuation plan. The emergency response capabiities will be enhanced with the addition of a new fire station and improvements to the public roadways. The evacuation analysis for this project will be the first formal process that can be found in searches of the available records (see Fehr and Peers Evacuation Analysis for details).

   From a wildland fire behavior perspective, the Project Site will not substantially impair an adopted emergency response plan or emergency evacuation plan. Project Site specific plans will be completed as an integral part of Resident Information and Community Communications efforts by the Project Site sponsors, builders, and the ultimate HOA's who will have the ongoing responsibility for this information.

2. **Determine the project-specific Wildland Fire Hazard and Wildland Fire Risk to quantify issues that may exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;**

This report has examined the project-specific Wildland Fire Hazards and the resulting Risks after the risk reduction measures are in place and found that the level of Risk that results is no greater than similar communities in the area and generally better than projects constructed prior to the current Regulations. The Project Site has two primary egress points, and up to five EVA's which are available for evacuation efforts should law enforcement deem it necessary. Additionally, the combination of fuel modification/defensible space, hardened structures, and the placement of the structures and features on the topography relative to the wildland fuels creates a community that is capable of "sheltering in place" if necessary. While never a first choice by emergency service providers, if moving the population is a greater risk, this community, as designed and as it will be constructed, is capable of a sheltering operation without undue risk to the residents.

All fire scenarios that have been modeled have multiple Evac Points which are viable for specific periods of time. It should be noted that by the time the reaches the downwind evacuation point, the earlier evacuation points may become available for use by traveling through the center of the development area. All of the fire scenarios are run under extreme conditions which have not been recorded in previous fires or which are not likely to occur in the future; they are worst-case scenarios.

Evacuation reduces exposure to pollutant concentrations generated by wildfire. The combined effects of the fuel modification/defensible space, roadside clearance, wildland fire building code requirements, and the design/placement of the structures on the topography work together to protect the community from wildfire. The Project Site will, in fact, provide a buffer to some of the existing communities by removing or modifying the wildland fuels which are upwind from them. With the fuel modification/defensible space and roadside clearance in place, the probability of a fire originating from the Project Site is lower than the adjacent communities without this level of protection. In order to access the wildlands, it will be necessary to traverse either the 100' fuel modification/defensible space zone or the roadside clearance zone. Ignitions from the normal sources associated with development will be much less likely to occur.

As proposed, the Project Site will have a less than significant impact on wildfire risks, project occupants would not be exposed to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire as in most cases, as they will be able to evacuate.

3. **Determine if the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) may exacerbate fire risk, or that may result in temporary or ongoing impacts to the environment;**

All of the improvements for the Project Site have been identified and analyzed for their impact on the environment in the CEQA process. None of the Project Site infrastructure will exacerbate the fire risk for the Project Site. In fact, the improved water supply for the general area, the placement of fuel modification/defensible space zones and the

establishment of a community that has the option to "shelter in place" if needed provides an alternative to the existing residents where this level of protection does not exist. If evacuation is not possible from the region, nearby communities would be safer traveling to the Project Site development areas than they would be in some of the current neighborhoods due to the added protections provided in the Project Site.

As proposed, the Project Site will have a less than significant impact on ongoing impacts to or exacerbation of the environment as a result of installation or maintenance of associated infrastructure related to wildland fire risk.

4. **Determine if people or structures will be exposed to significant risks due to the completion of the project; and**

The required wildland fire protection features, and the additional protection measured identified in this report, will keep the residents and the structure of the Project Site protected from significant risk by the required Regulations and the manner in which the Project Site will be developed (clustered development with a definable interface vs an intermix community). The risk from wildland fires for the Project Site will be less than the surrounding communities as the Regulations under which the project will be developed have significantly increased the level of protection required as a baseline for development projects. Coupled with the additional protection measures listed in this report, the Project Site has mitigated the hazards in the adjacent native vegetation to an acceptable level of risk under current Regulations.

As proposed, the Project Site will have a less than significant impact on increasing or creating new risk associated with completion of the project. A strong case can be made that the Project Site reduces risk to the existing communities by providing a buffer between the fire and the existing communities. The Project Site will be constructed to current standards and is not expected to allow fire to move into the existing communities which are downwind with the same level of intensity and rate of spread.

5. **Consider whether a project will "expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires."**

As proposed, the Project Site will not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death due to a wildland fire in the native areas adjacent to the Project Site due to the use of Fuel modification/defensible space, Defensible Space, Fire Sprinklers, placement of the structure on the Landscape/Topography, the width of the streets, the amount of fire protection water available and the placement of the fire hydrants are specified intervals, the hardening of the structures to comply with the current wildland interface Regulations and availability of firefighter resources within the Project Site and the regional assets available to combat a wildland fire by the Fire Department and the other associated agencies (CalFire, USFS, mutual aid fire resources, Call when needed fire resources) who routinely assist in the suppression of wildland fire in the region.

As proposed, the Project Site will have a less than significant impact on creating or increasing the exposure of people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. The Project Site will be significantly more protected than the existing communities which were not constructed to the current standards and do not have the same protections afforded the Project Site through its system's approach to wildland fire defense.

Conclusions and Recommendations

A review of the expected fire behavior in the interface of the Marble Valley development indicates that the fire behavior could produce extreme fire behavior, and as such, risk reduction measures will be necessary. Many of these risk reduction measures are required by the State and Local fire/building regulations, fire department standards, and guidelines, and by risk reduction measures already considered and applied by the development review process. Fire behavior modeling predicts that there will be varied timeframes for evacuation of the Project Site under fire scenarios where the fire is burning into the community from an adjacent area. Each scenario has its own set of parameters. Where fires are initialized within the Project Site or near its boundary, the fire incident command and control may have to determine if the population will be moved or "sheltered in place."

The proposed community with its increased built-in fire protection features (defensible space, fuel modification, hardening of the structures and required maintenance), placement of the structures on the topography, overall orientation to the fuels, wind, and slope and nested (safe center) configuration would be a candidate for a "shelter in place" decision. While "shelter in place" is never a first option, history shows us that moving populations, once the fire has arrived, has increased risk, and should not be attempted when safe alternatives exist.

The configuration of the Project Site, the placement of the structures and features on the topography and the nature of the wildland fuels surrounding the project create conditions where the fire will travel at great speeds when wind, slope and fuel align but all of the access points are not impacted by fire at the same time.

The fire behavior static modeling in this report with flame lengths of up to 55' under the worst-case scenario would be protected by compliance with the Fire Department fuel modification/defensible space standards. Fuel modification/defensible space is designed to reduce and change the fuel types as the combustible vegetation gets closer to the structure. As a "rule of thumb," two times the maximum flame length is adequate protection from radiant heat in a hardened structure. These distances also protect from direct flame contact (a distance greater than the flame length by a factor of two) and convected heat (less impactful than the radiant heat distance as discussed previously). The structure hardening (including ember intrusion projection) protects from embers and brands which may travel long distances under worst-case conditions.

With respect to the defensible space distance for the perimeter structures, the Fire Department requires distances of 100 feet of fuel modification/defensible space based on the adjacent fire potential as measured by the slope, aspect, fuel characteristics, fire history, and weather data

(wind, temperature, and relative humidity). While the distance required in the thinning zones may be allowed to be reduced based on the level of hazard present, the zones nearest the structures are rarely reduced.

Additionally, the implementation of Zone 0 (the first five feet from the structure) will only enhance the already robust level of protection for the Project Site.

It has been determined that, with the implementation of the risk reduction measures set forth in this report, the proposed development areas set forth as project configurations will have a less than significant impact from the wildland fire-related issues raised under the AG Guidelines, as well as under CEQA Guidelines Appendix G, Section XX Wildfire.

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El Dorado County Fire Protection District (California State Fire Code as amended and adopted)

El Dorado County Regional Fire Protection Standards apply to the entire site (adopted into the EDHFD standards)

El Dorado County Oak Resources Management Plan, September 2017, Page 6

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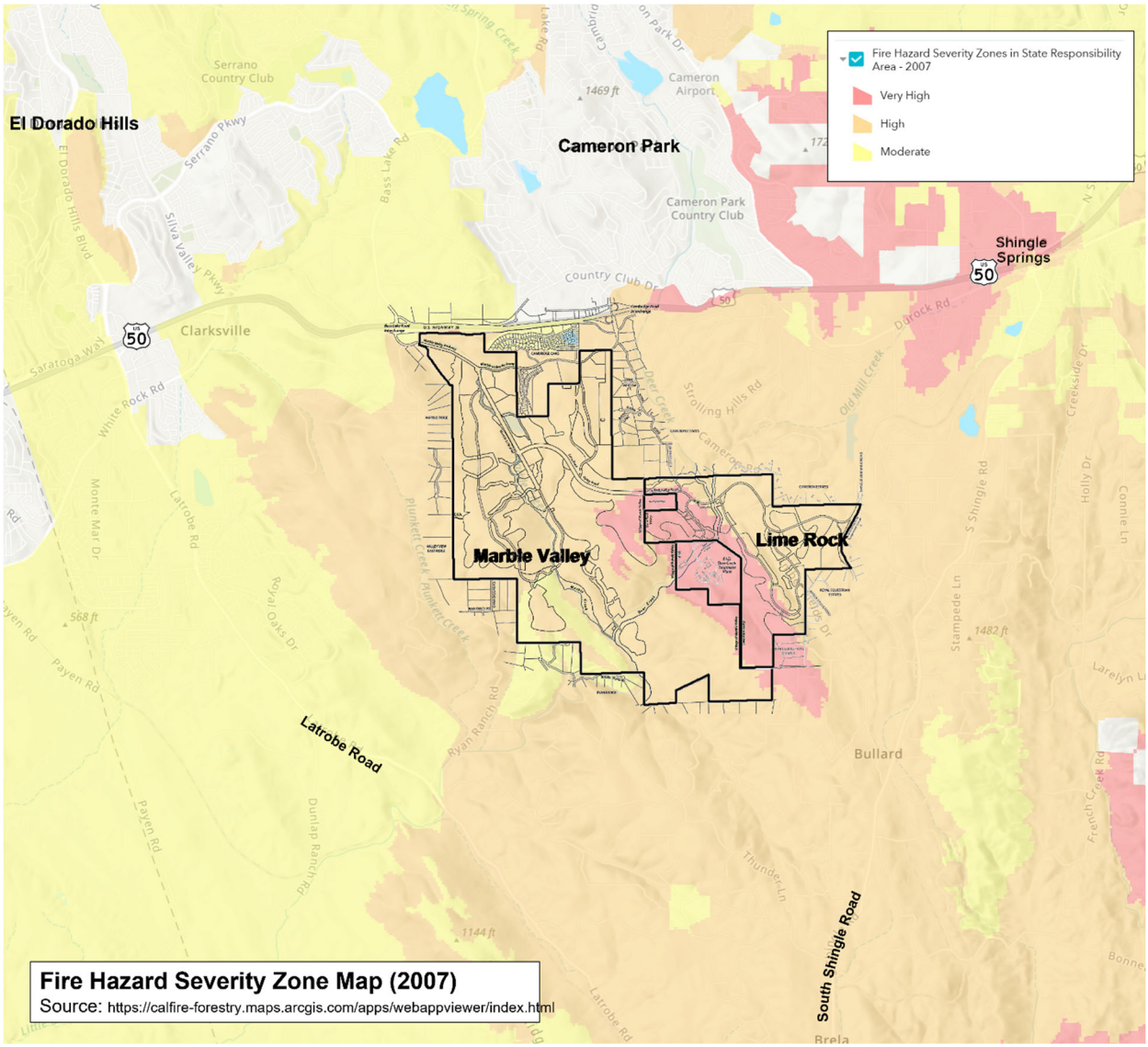
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Reference

Fire Hazard Severity Zone Map (2007)



Appendix A
Site Photos Locations

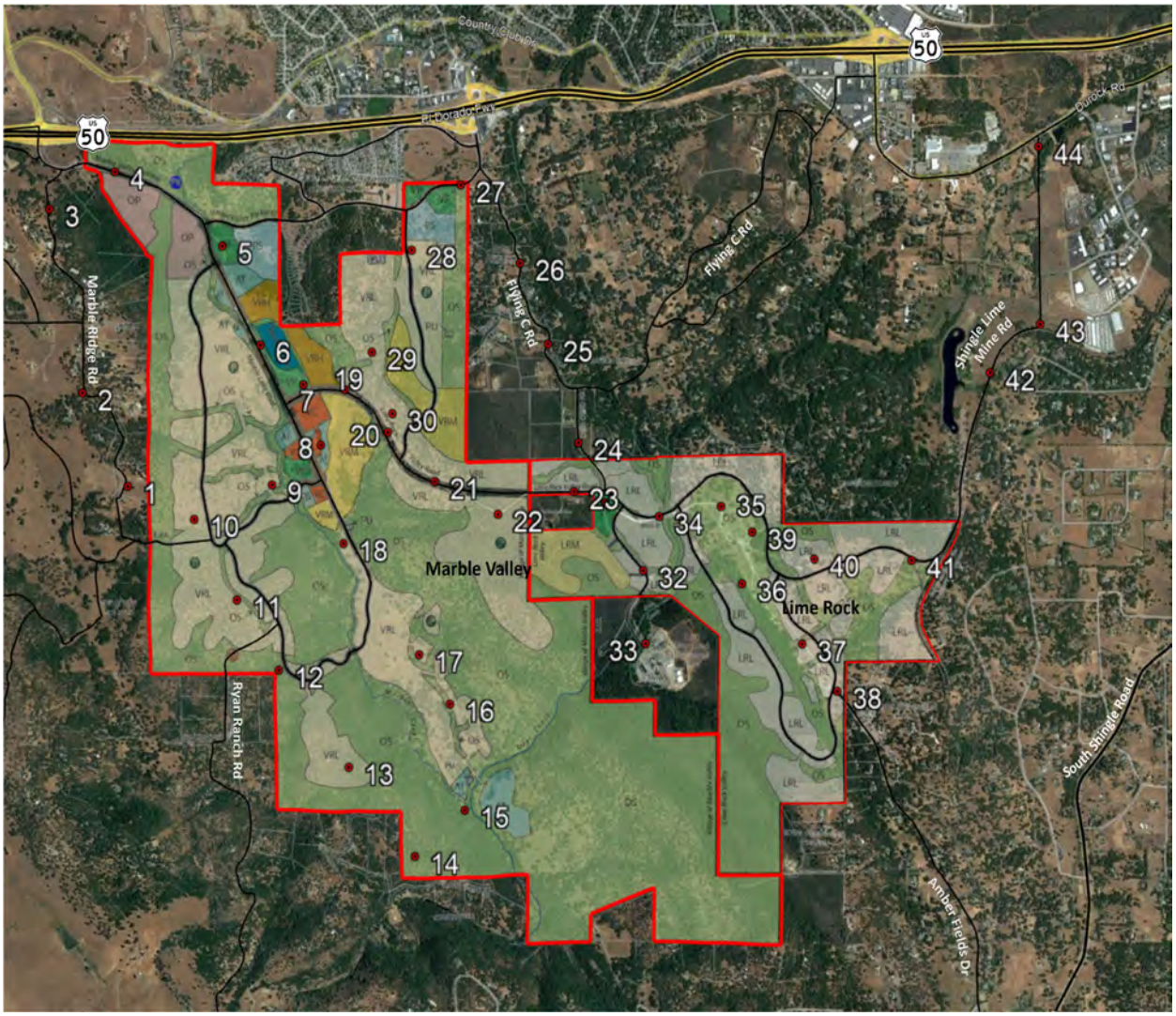


Photo locations are shown on the map above as reference points. Several photos were taken from each general location and are within a few feet of each other. For simplicity, these photo site have been grouped in the locations are shown above.

Photo Site 1 – Looking Southeast



Looking East



Photo Site 2 – Looking Southeast



Looking East



Photo Site 3 – Looking South



Looking East



Photo Site 4 – Looking North



Looking Southeast



Photo Site 5 – Looking West



Looking Southeast



Photo Site 6 – Looking East West



Looking Southeast



Photo Site 7 – Looking East



Looking South



Photo Site 8 –Looking North



Looking South Southeast



Photo Site 9 – Looking Southwest



Looking North



Photo Site 10 – Looking South



Looking Northwest



Photo Site 11 – Looking East



Looking Southeast



Photo Site 12 –Looking West



Looking East



Photo Site 13 – Looking Southeast



Looking Southwest



Photo Site 14 – Looking West



Looking Southwest



Photo Site 15– Looking East



Looking North Northeast



Photo Site 16 –Looking Northwest



Looking North



Photo Site 17 – Looking West



Looking Northwest



Photo Site 18 – Looking North Northwest



Looking East



Photo Site 19 – Looking South



Looking Southeast



Photo Site 20 –Looking Southeast



Looking West Southwest



Photo Site 21 – Looking East



Looking Southeast



Photo Site 22 – Looking North



Looking South



Photo Site 23 – Looking South



Looking South Southwest



Photo Site 24 –Looking West Northwest



Looking North



Photo Site 25 – Looking West



Looking North



Photo Site 26 – Looking North Northwest



Looking South



Photo Site 27 – Looking South Southeast



Looking West



Photo Site 28 –Looking North Northwest



Looking Northeast



Photo Site 29 – Looking Northeast



Looking South



Photo Site 30 – Looking Southeast



Looking South



Photo Site 31 – Looking North



Looking Northwest



Photo Site 32 – Looking Southeast



Looking Southwest



Photo Site 33 – Looking Northeast



Looking North Northwest



Photo Site 34 –Looking North



Looking West



Photo Site 35 – Looking North



Looking Northeast



Photo Site 36 – Looking Northeast



Looking Northwest



Photo Site 37 – Looking East



Looking North



Photo Site 38 – Looking Southwest



Looking West Northwest



Photo Site 39 – Looking South



Looking North



Photo Site 40 –Looking South



Looking West



Photo Site 41 – Looking South



Looking North



Photo Site 42 – Looking North



Looking South



Photo Site 43 – Looking West



Looking Northwest



Photo Site 44 – Looking South



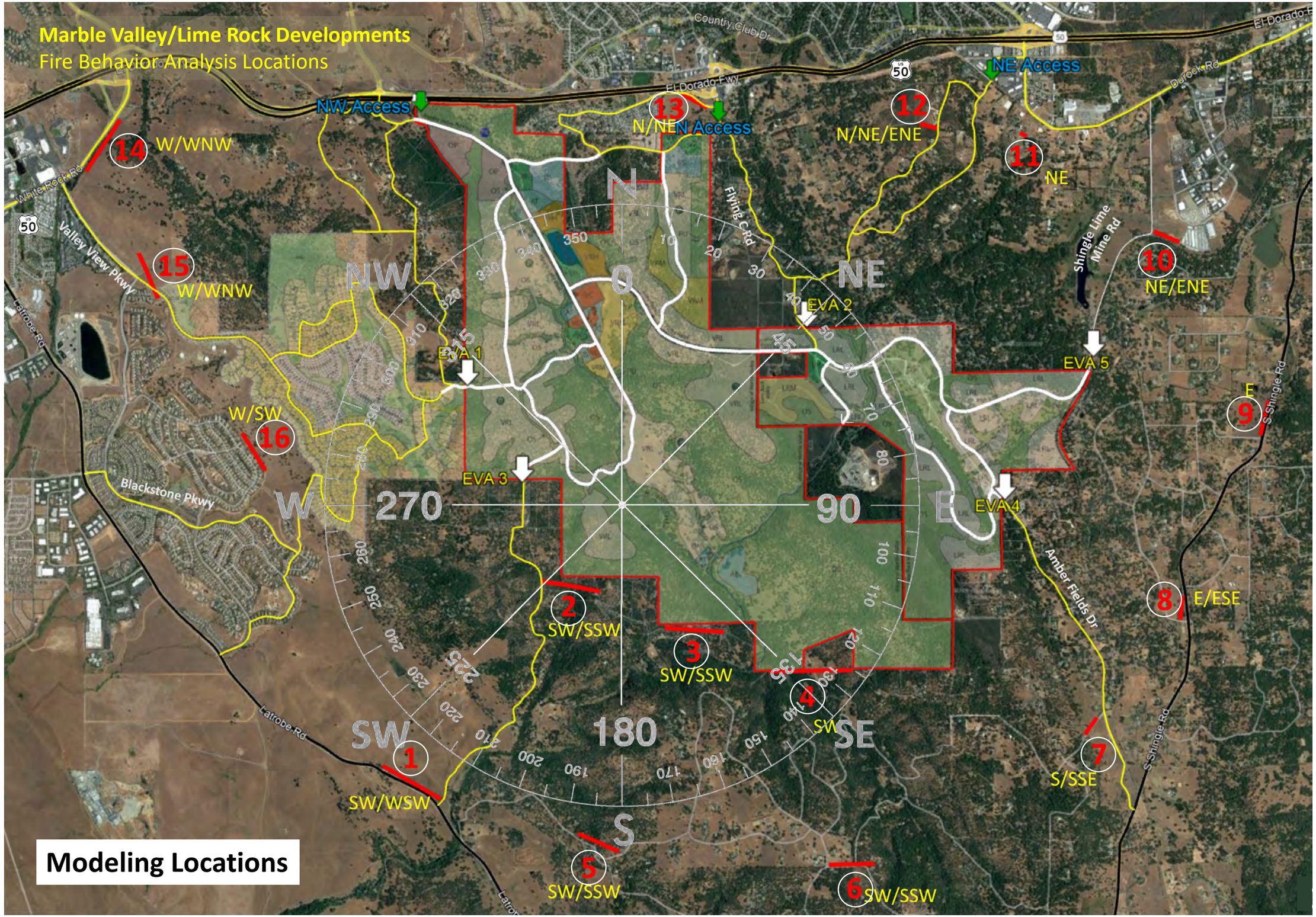
Appendix B – Modeling Outputs

B-2 – Scenario Locations/Wind Directions (Access and Evac Points Provided)

B-3 to B-137 – FlamMap/Minimum Travel Time Outputs

B-134 to B-138 – BehavePlus Outputs

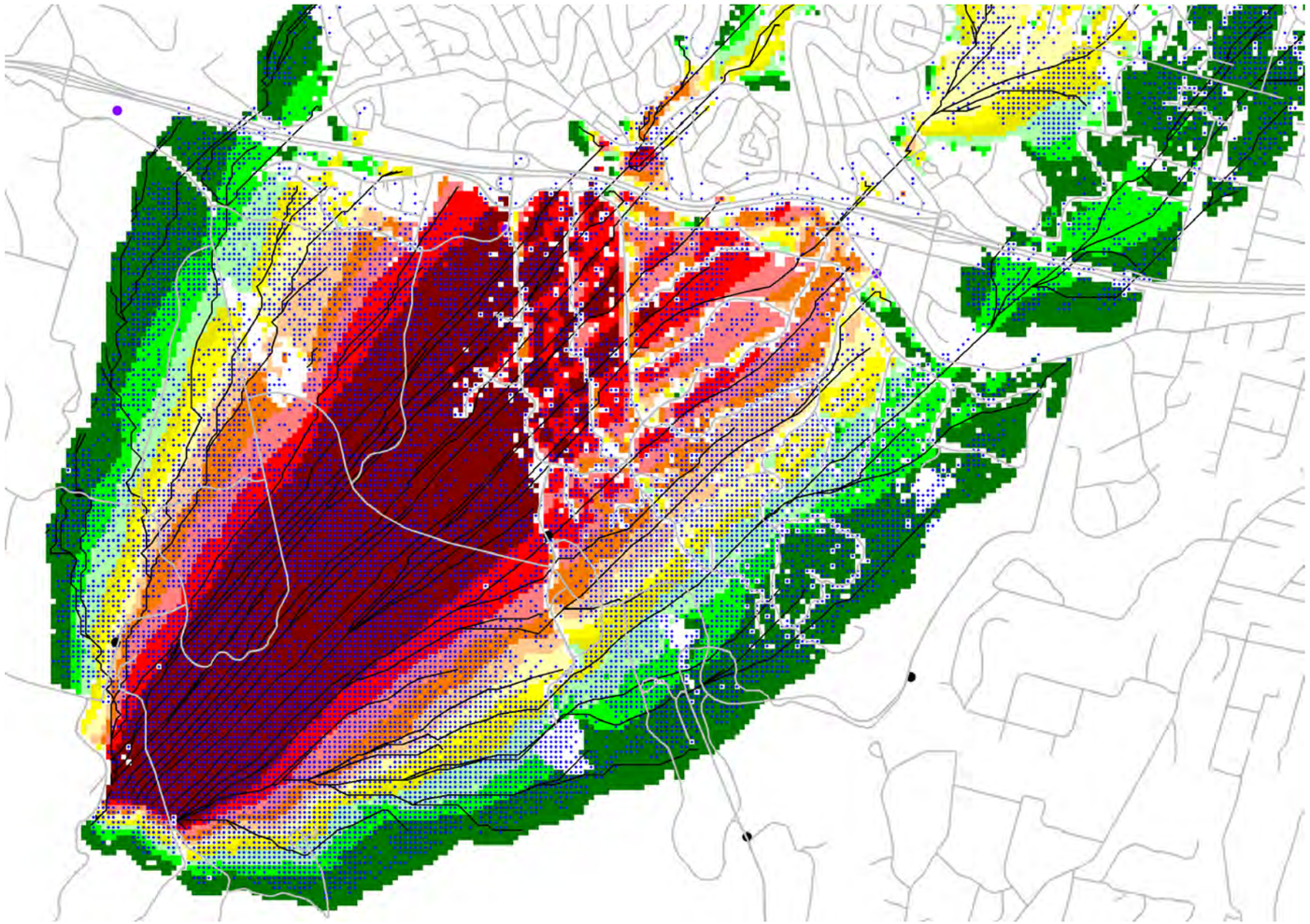
Marble Valley/Lime Rock Developments
Fire Behavior Analysis Locations



Modeling Locations

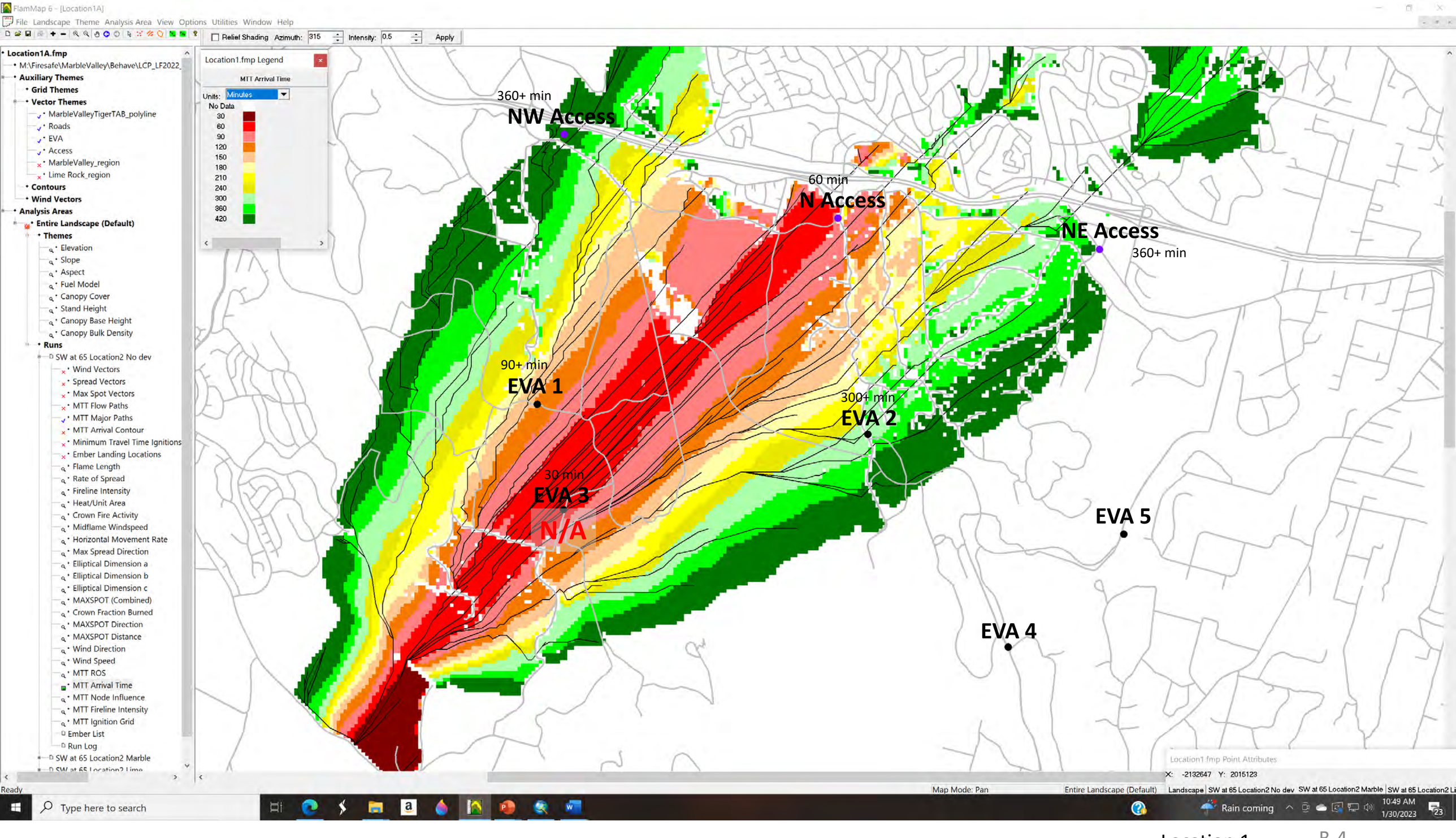
Modeling Assumptions:

1. Moisture Scenario will be 3, 4, 5, 30, 50 (extreme)
2. Wind will be assumed to be from:
   a. N, NNE, NE at 45 mph
   b. SE, SSE, S, SSW, SW at 65 mph
3. Fuel models to be used
   a. LCP_LF2022_FBFM40_220_CONUS
   b. No modifications have been done to any layers
4. Development area are used as fire barriers due to fuel modification and defensible space protection. Community burn through is not expected.
5. Fire scenario will be with sustained winds (no diurnal effect)
6. No fuel conditioning is used with worst-case moisture scenario
7. Arrival Times are shown to eight hours, but fire scenario is unlimited
8. Foliar Moistures are assumed to be 100
9. Crown Fire Calculation Method is set to Finney (2004)
10. Spotting Probability is set to 0.99
11. Spotting Delay is set to 0
12. Fuels have not been adjusted to any disease or drought impacts
13. Slopes and Aspects have not been adjusted in the development area (barrier file adjusts this to some degree)

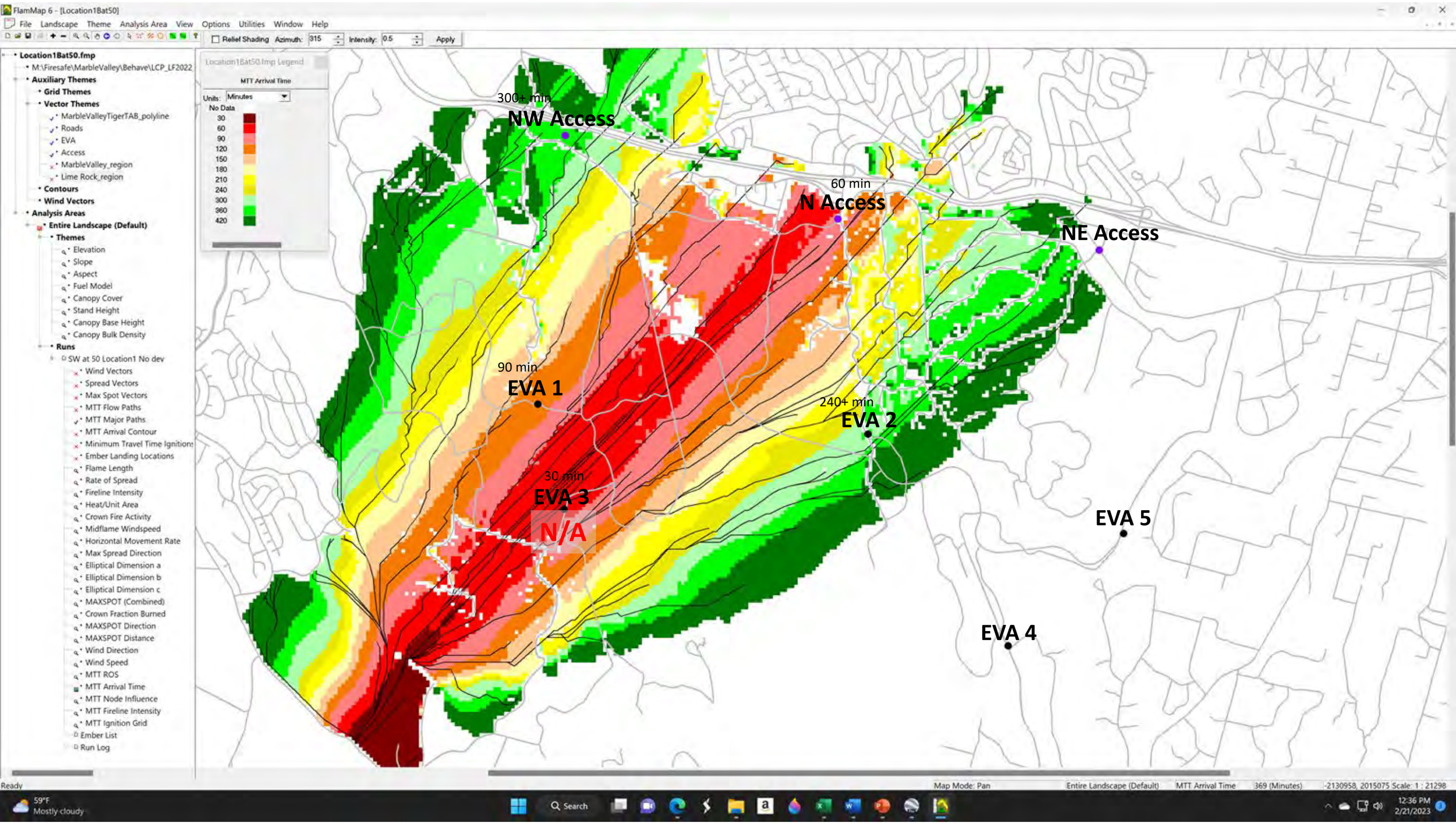


Modeling Note: Each of the blue dots on the graphic above is an ember landing location. Since the spotting probability is set to 99%, each of the downwind locations is available. The software will select the spotting locations randomly. Since the this will be different on each run of the scenario, minor differences will occur if the same scenario is run multiple times.

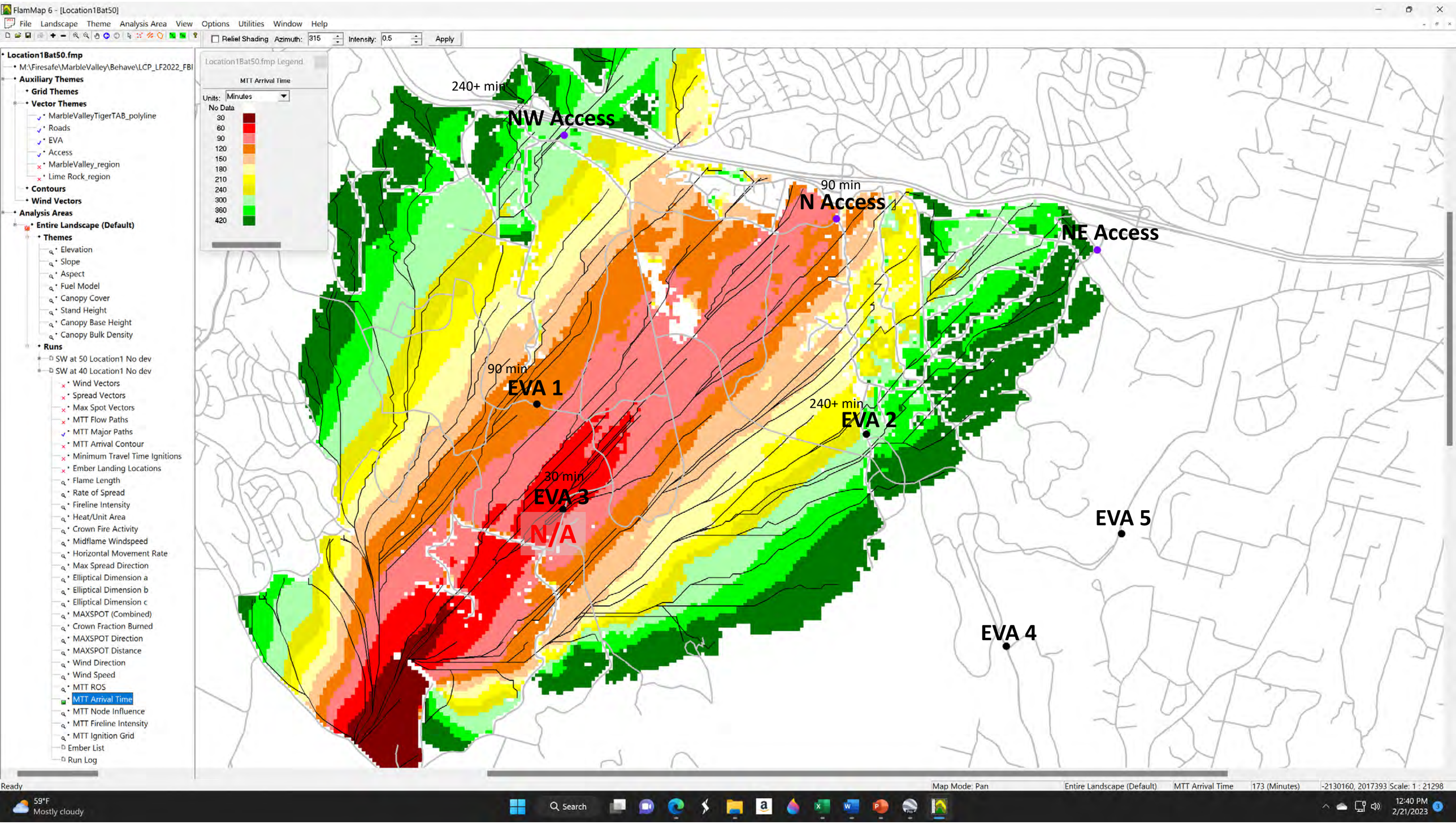
Location 1 SW wind at 65 mph No Dev – Scn 1A



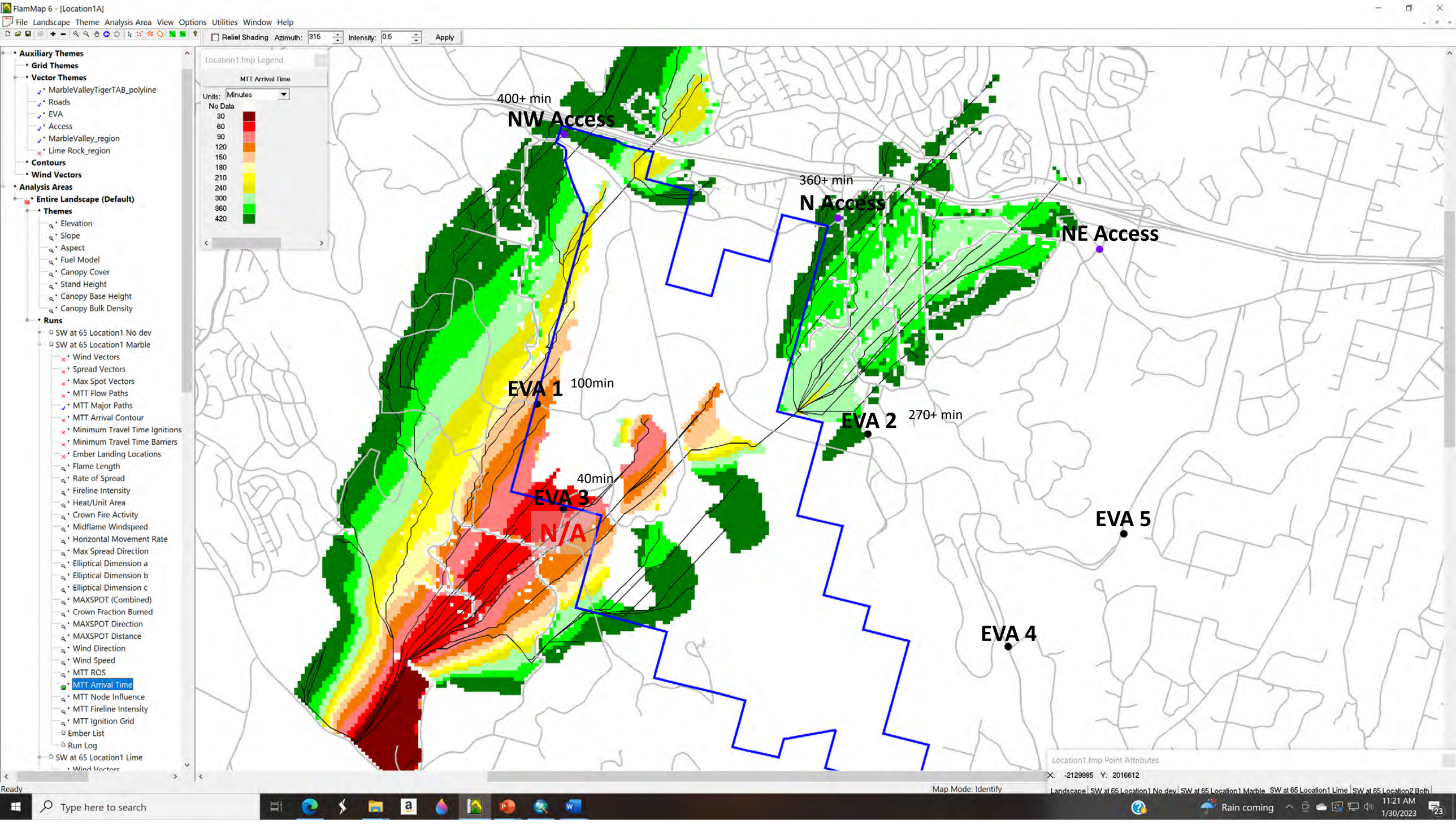
Location 1 SW wind at 50 mph No Dev – Scn 1B



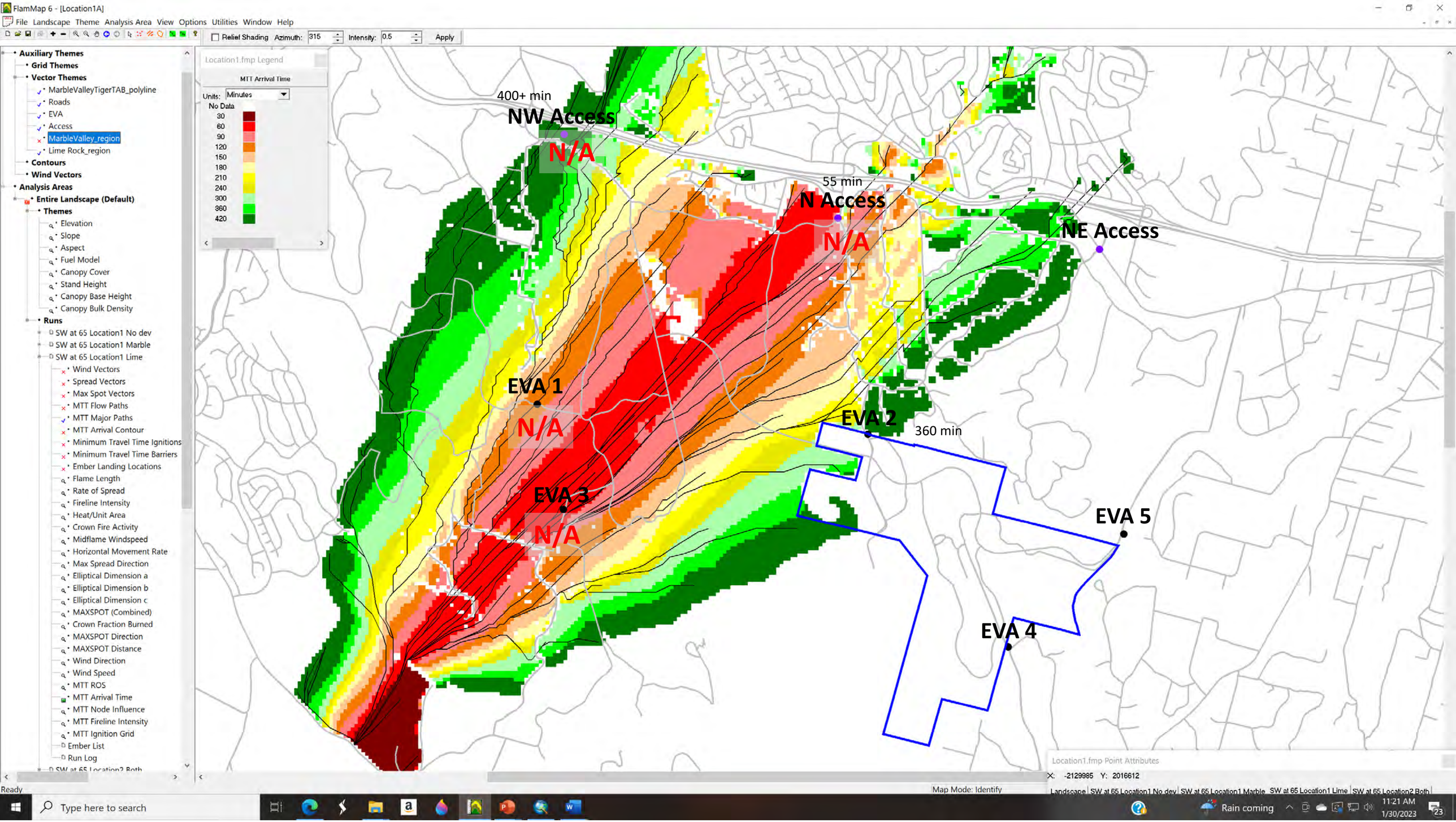
Location 1 SW wind at 40 mph No Dev – Scn 1C



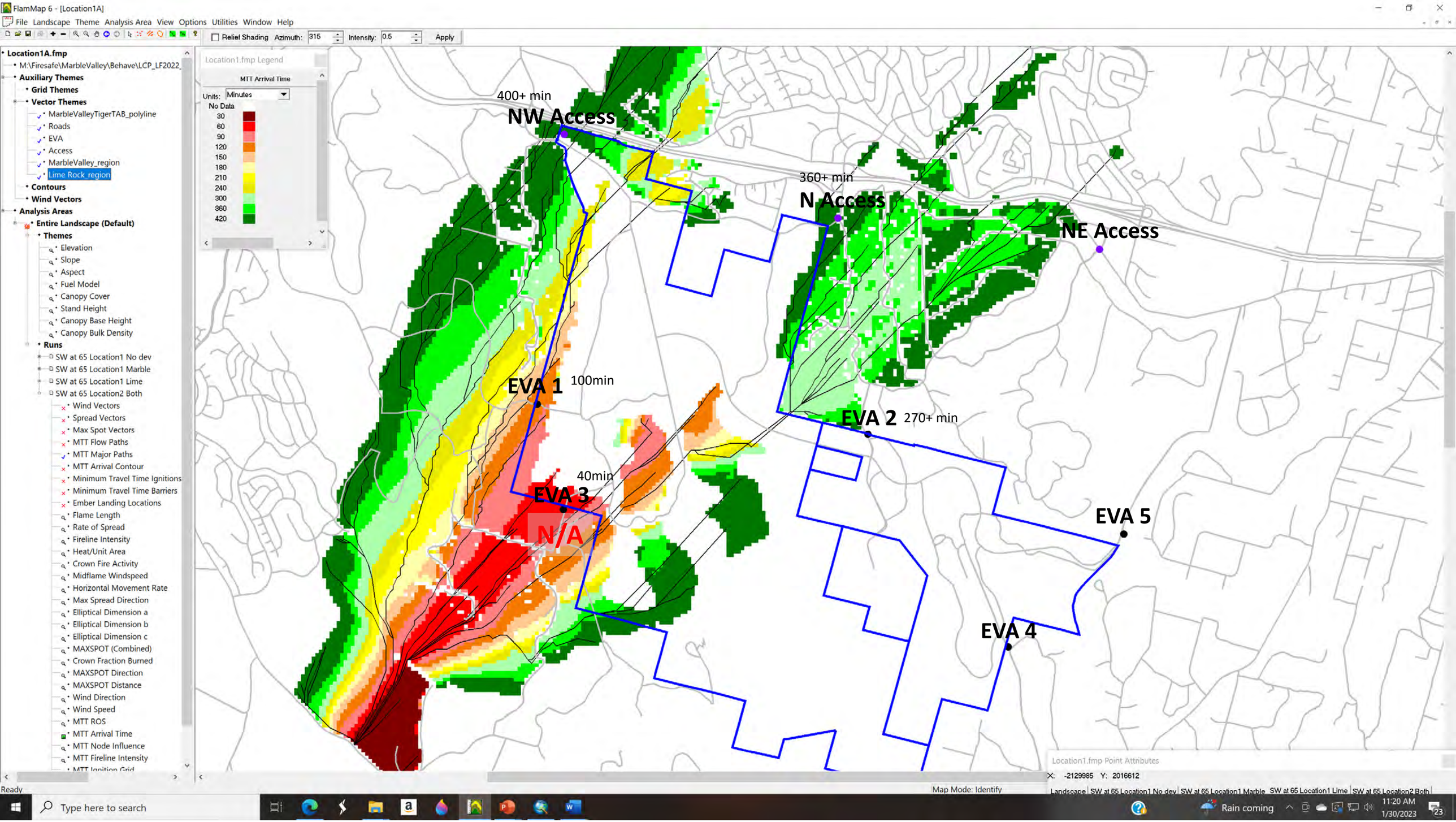
Location 1 SW wind at 65 mph Marble – Scn 1D



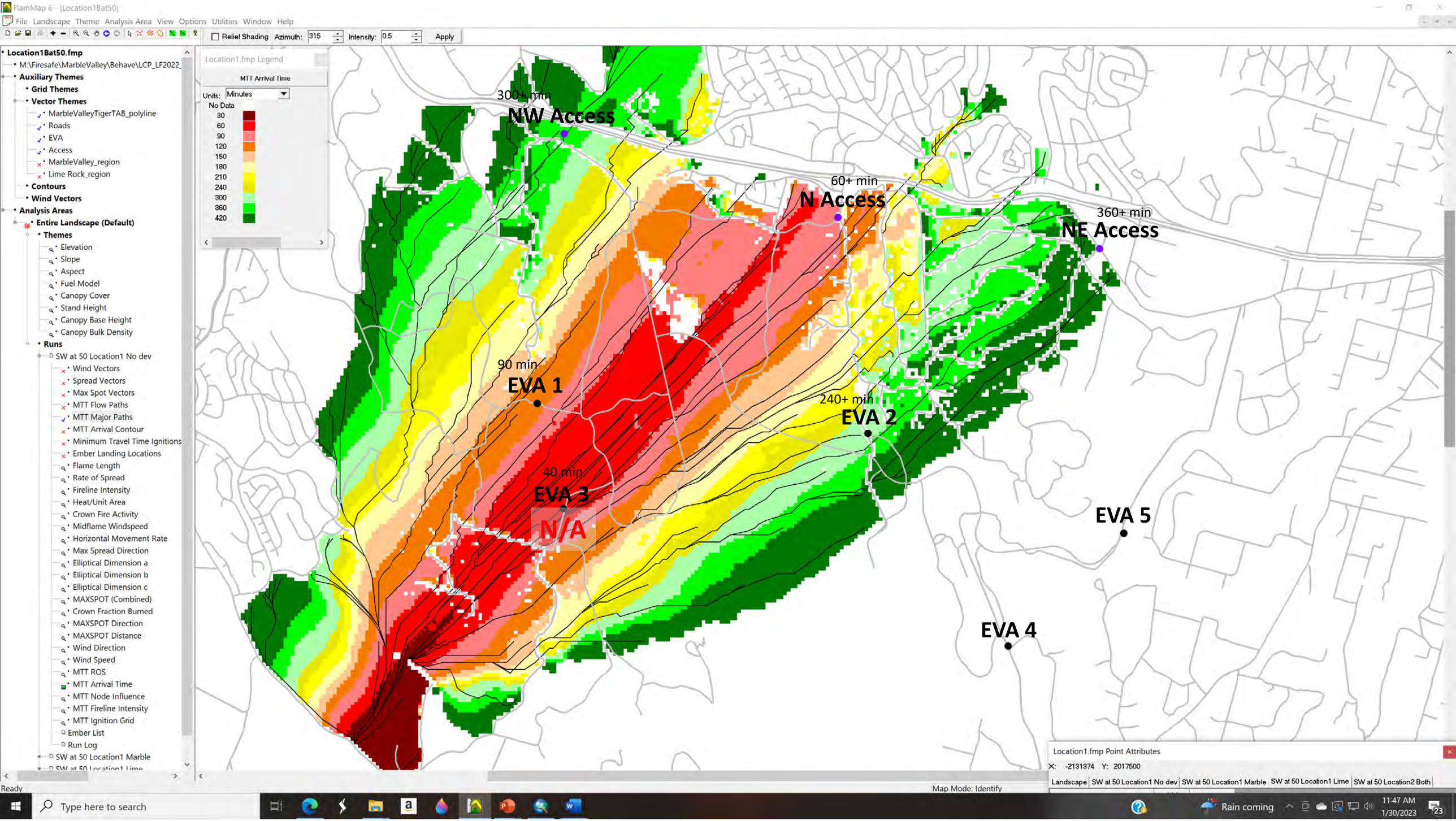
Location 1 SW wind at 65 mph Lime – Scn 1E



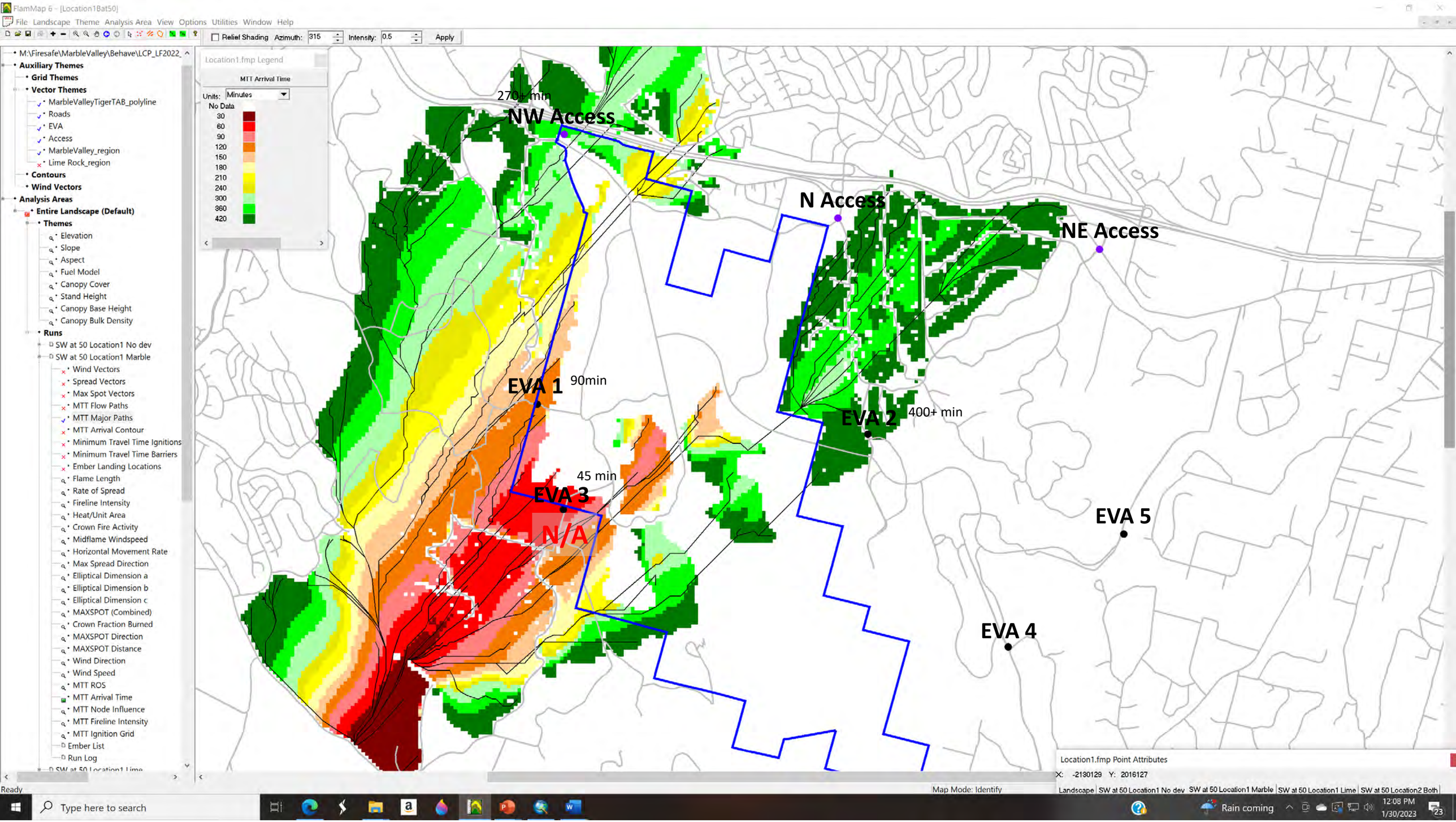
Location 1 SW wind at65 mph Both – Scn 1F



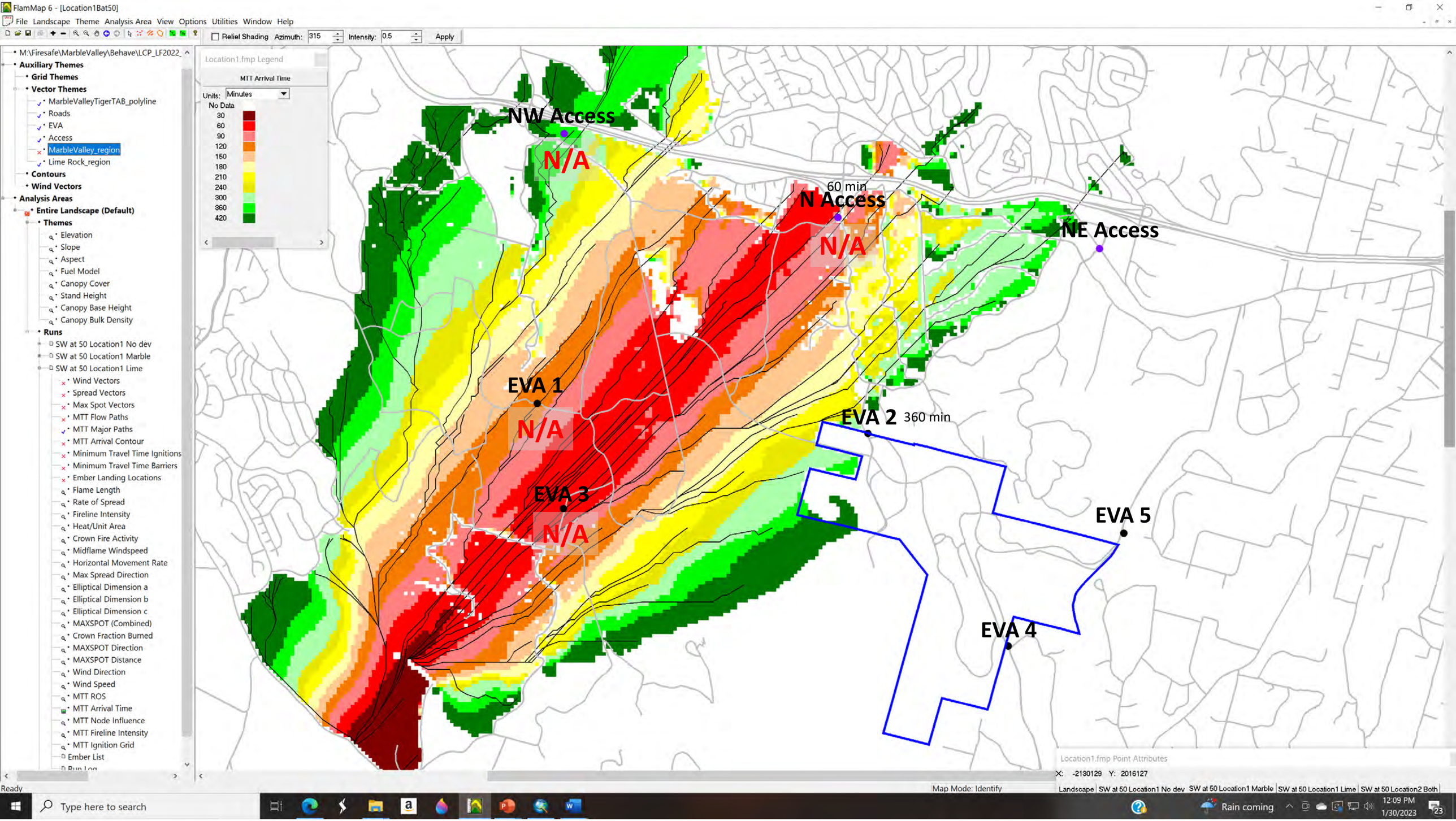
Location 1 SW wind at 50 mph No Dev Scn 1G



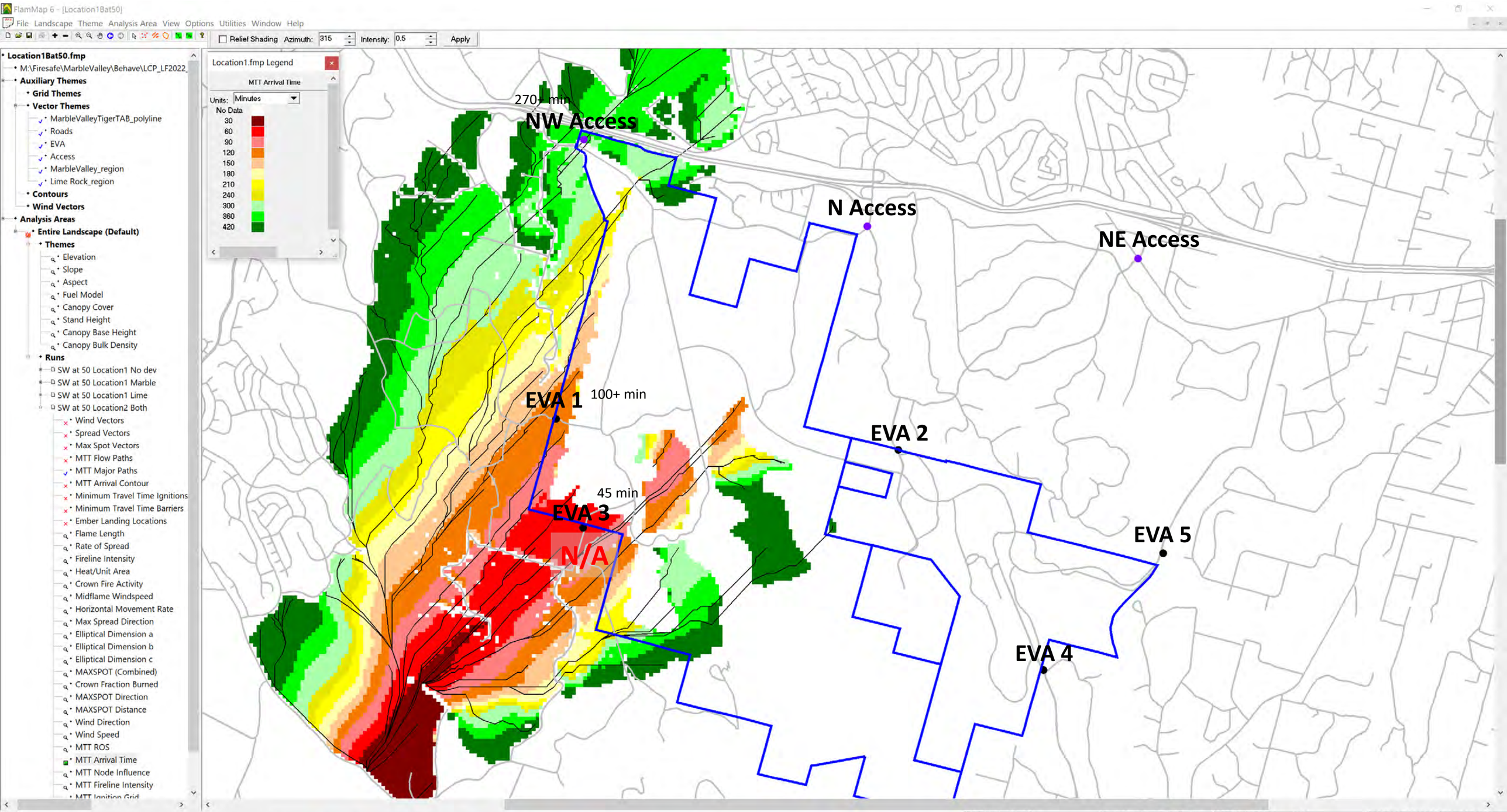
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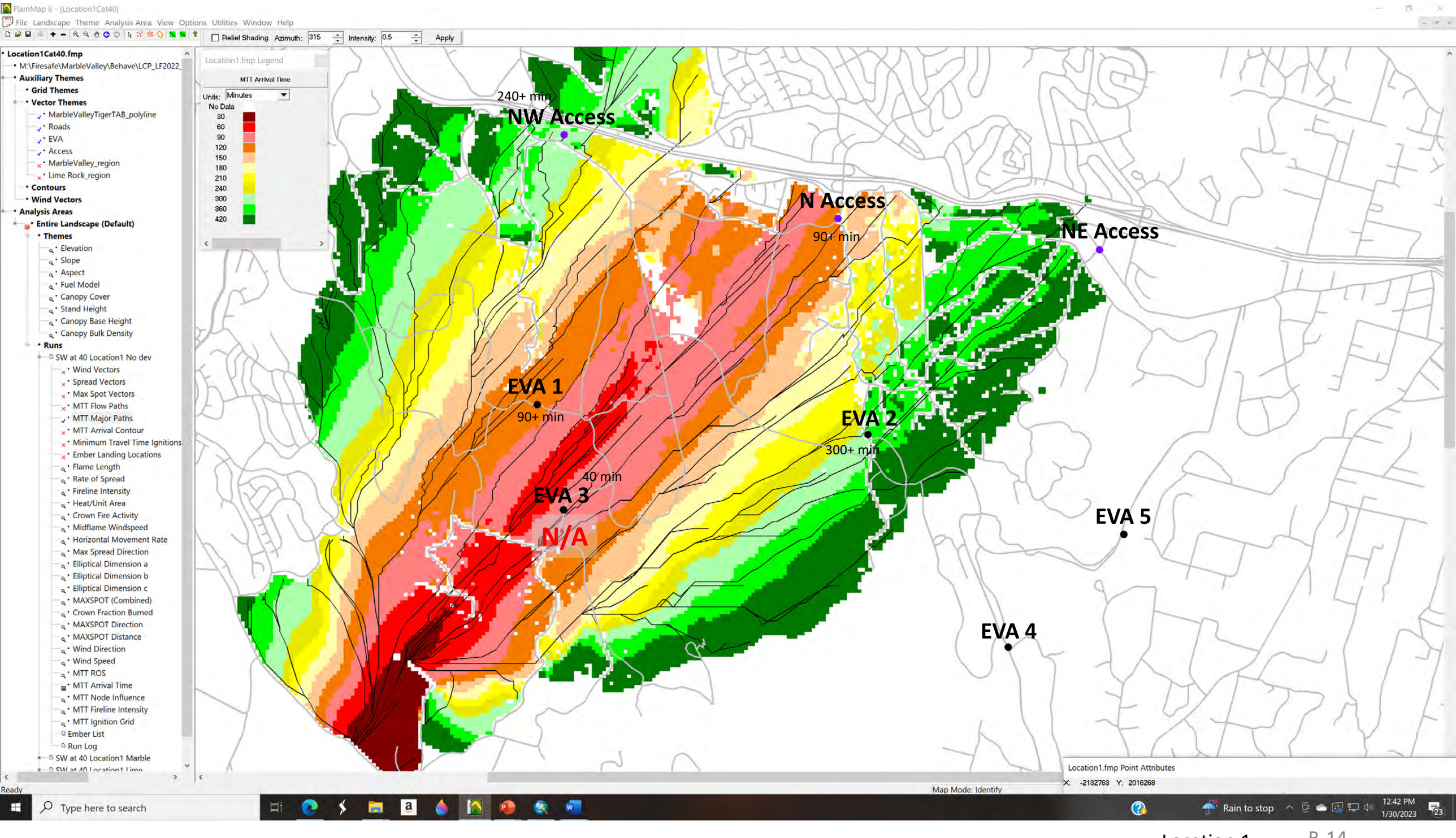
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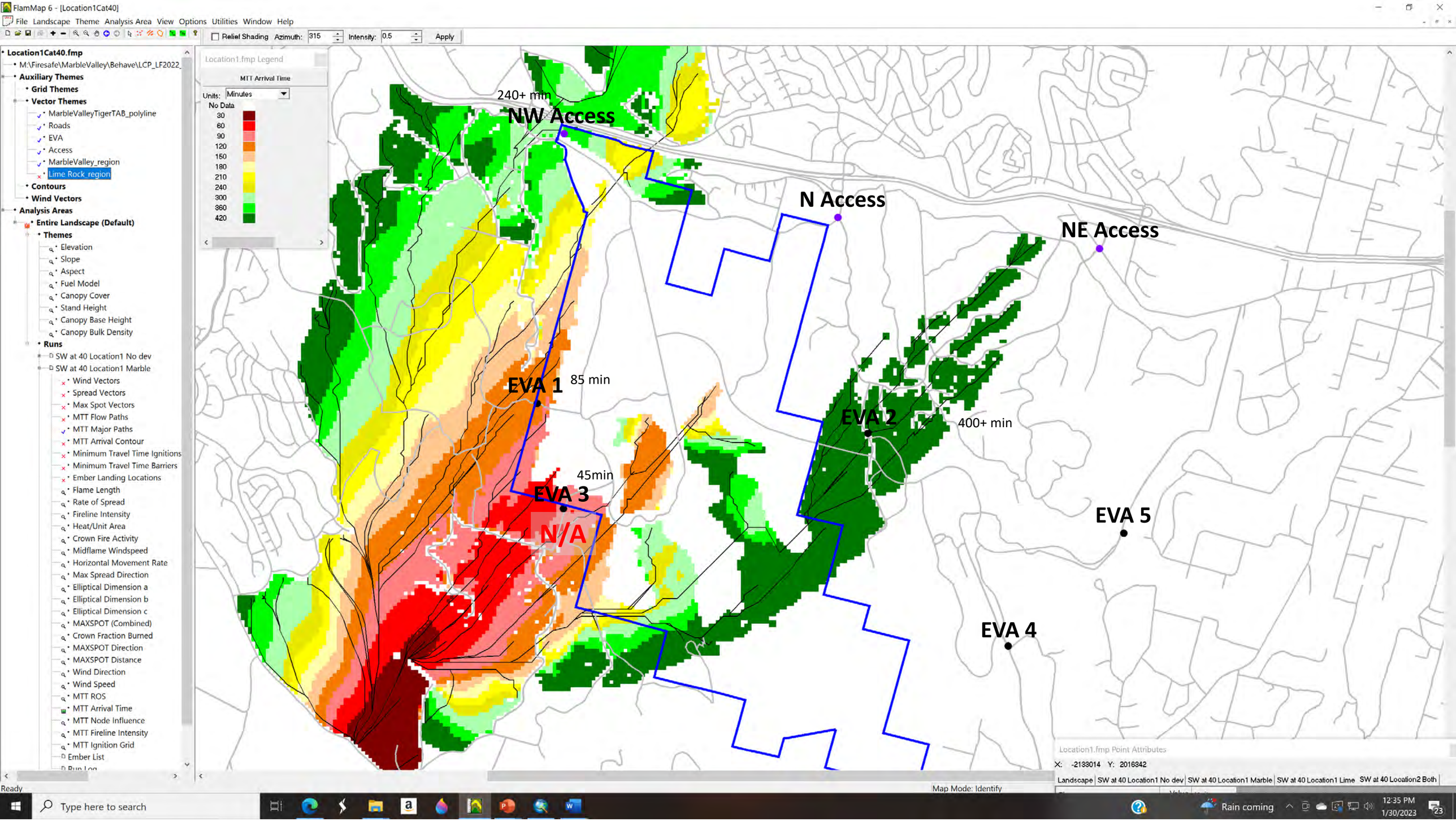
Location 1 SW wind at 50 mph Both – Scn 1J



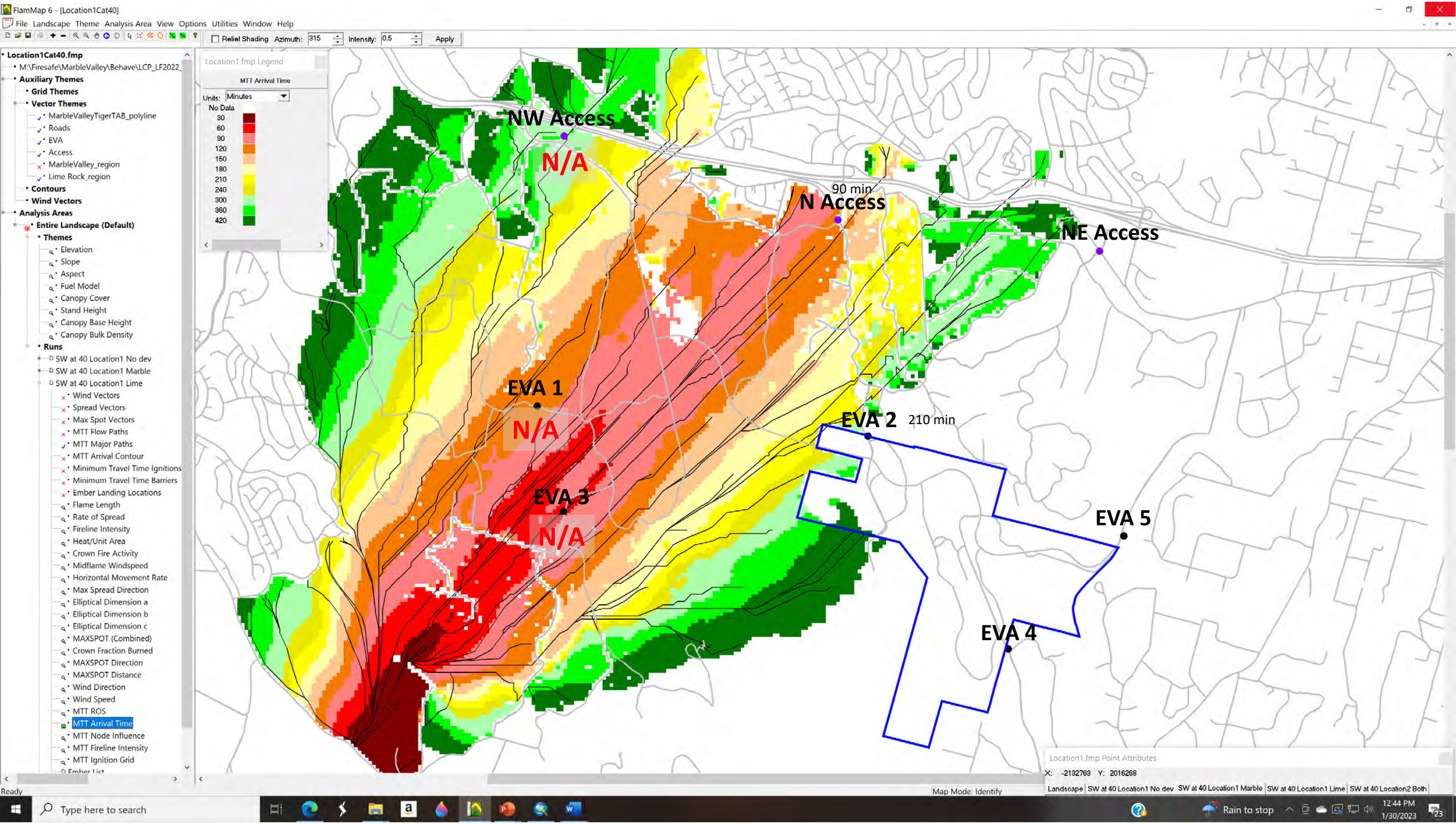
Location 1 SW wind at 40 mph No Dev Scn 1K



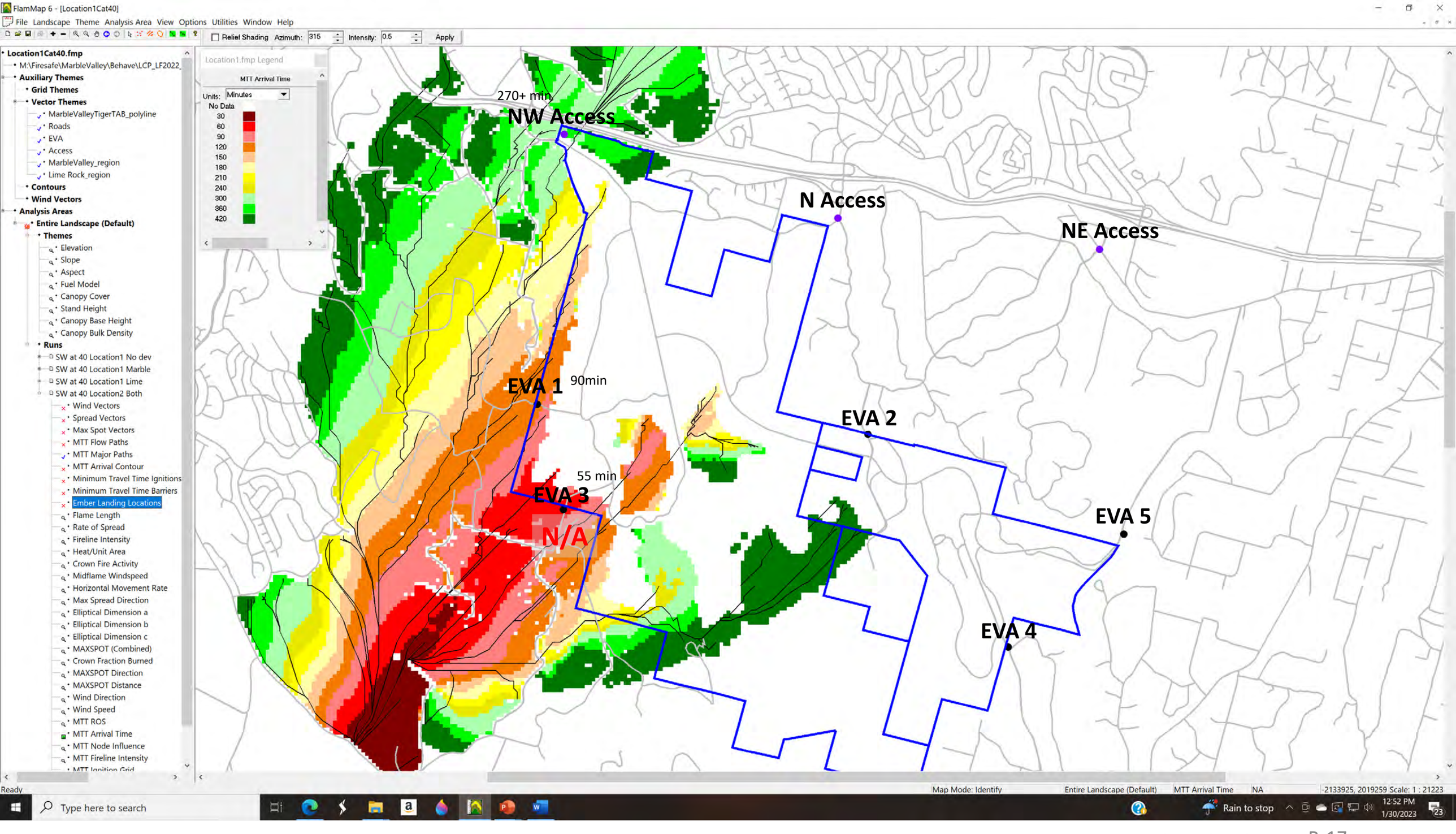
Location 1 SW wind at 40 mph Marble – Scn 1L



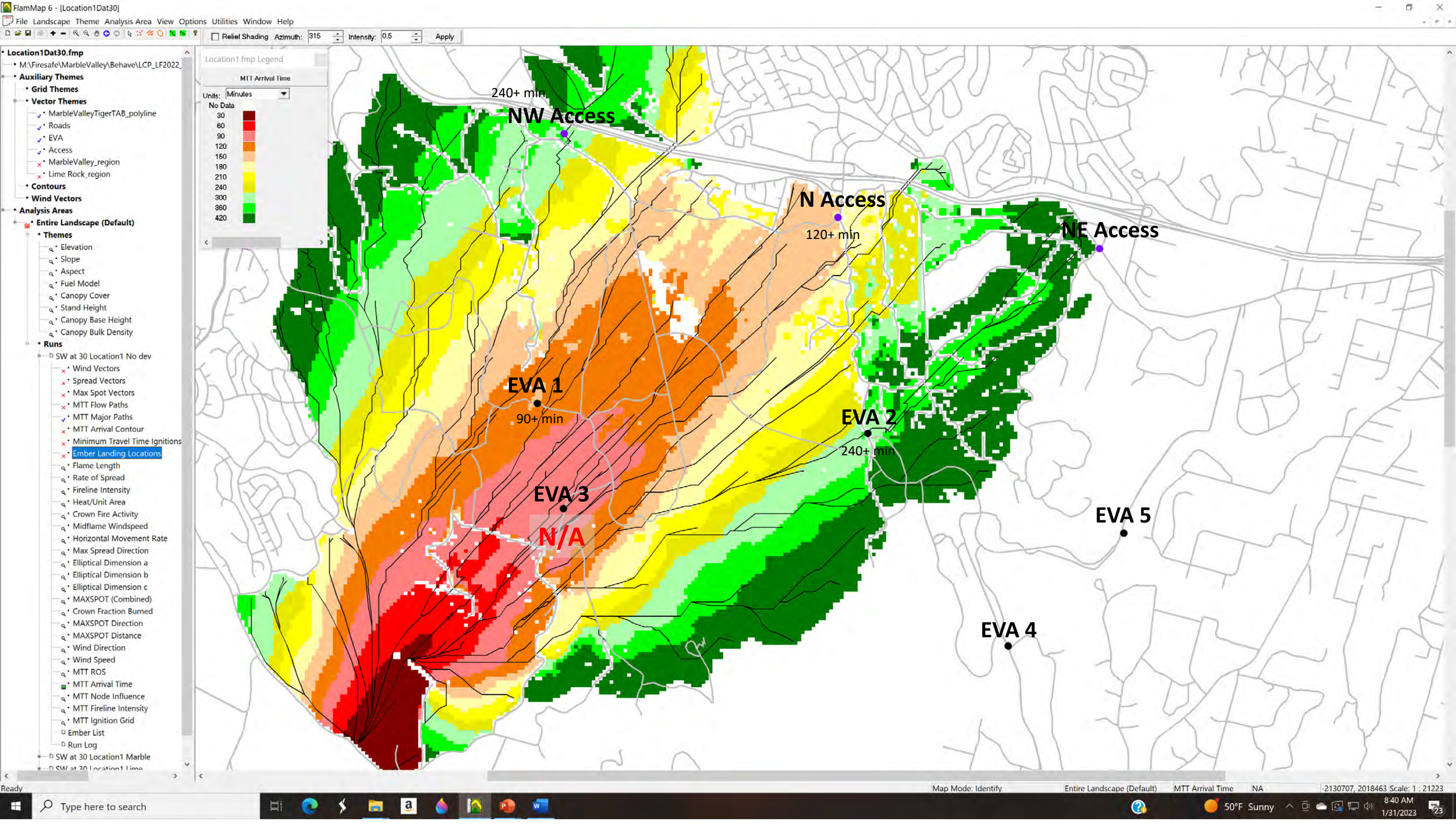
Location 1 SW wind at 40 mph Lime – Scn 1M



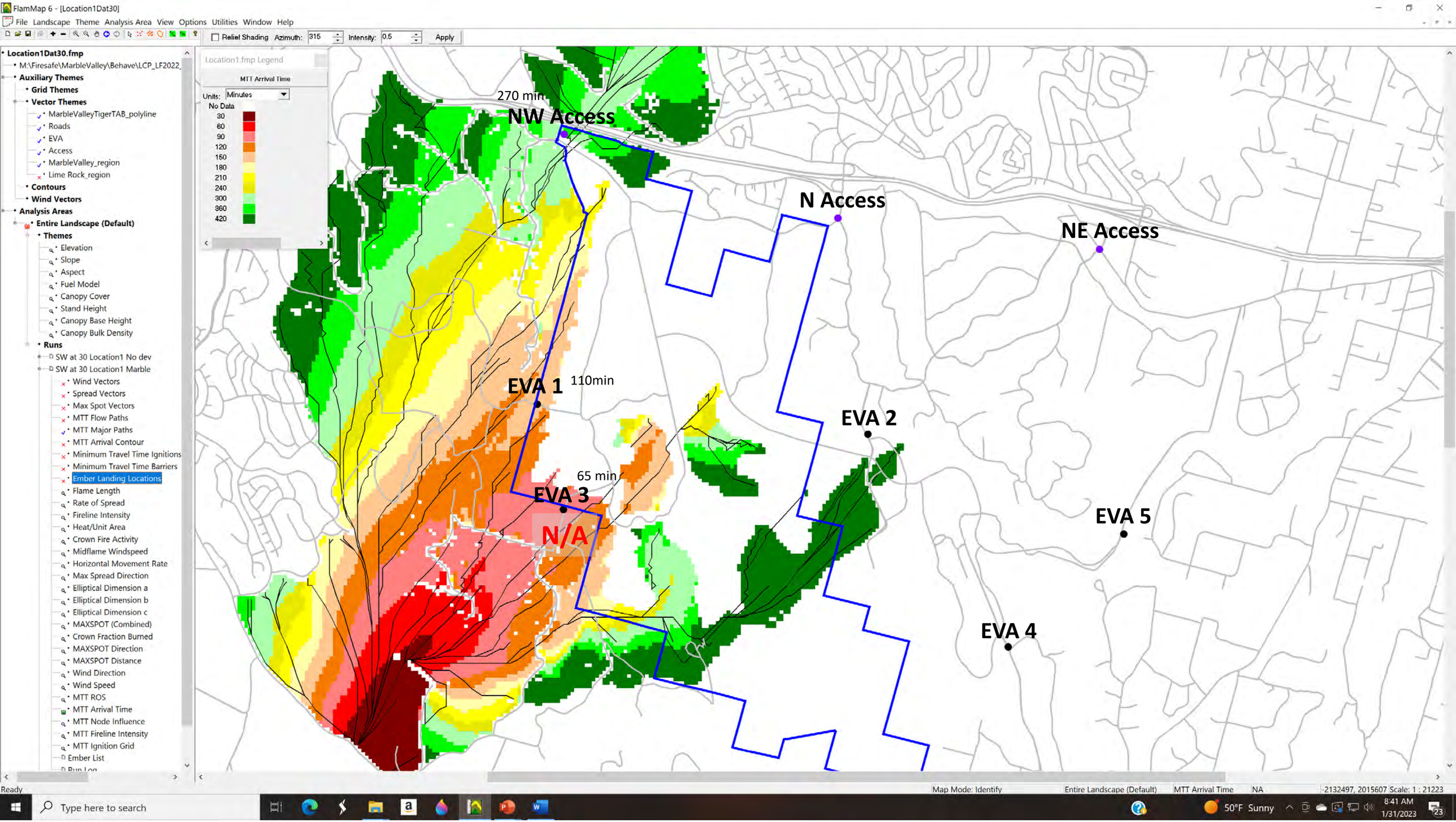
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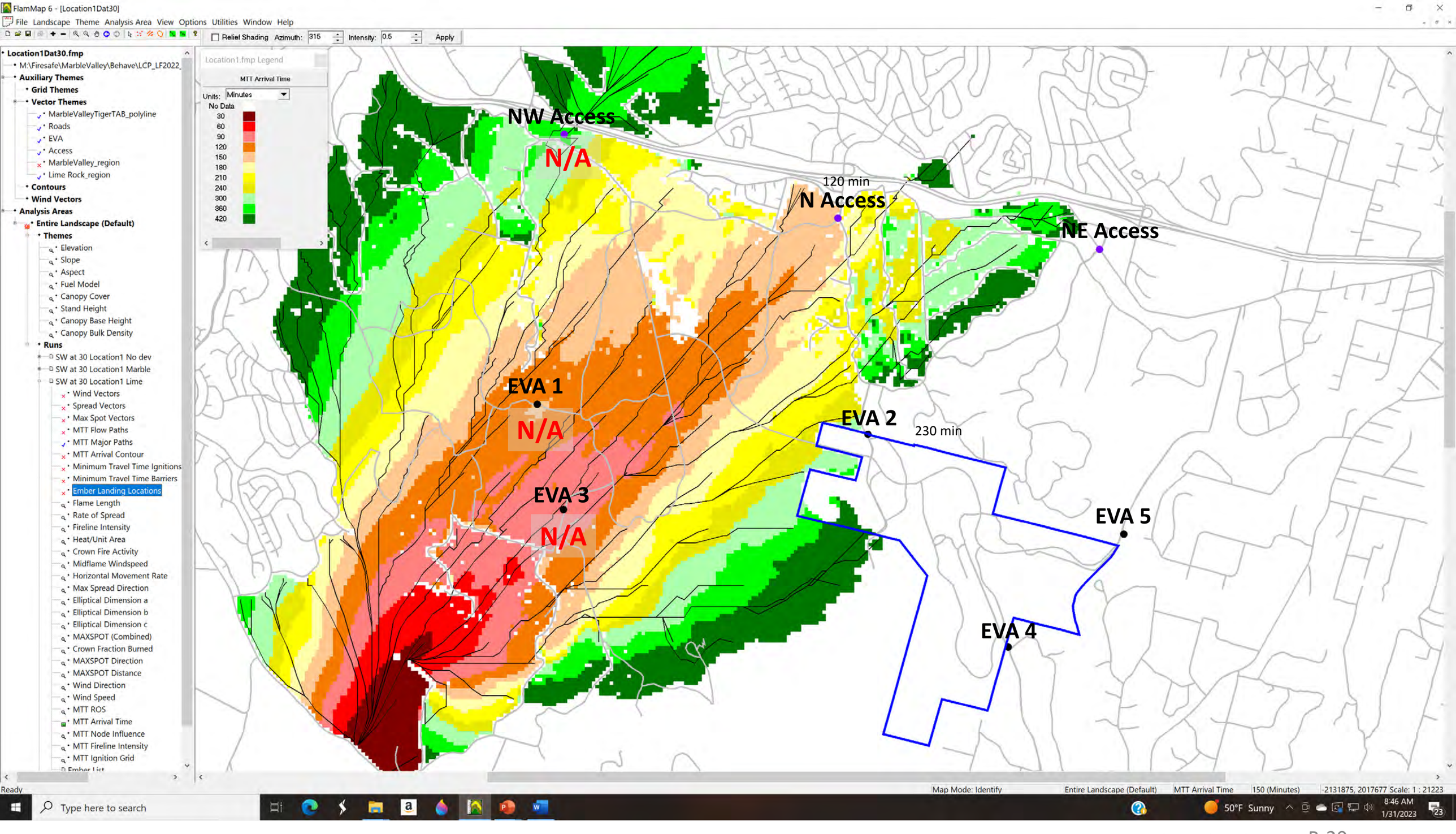
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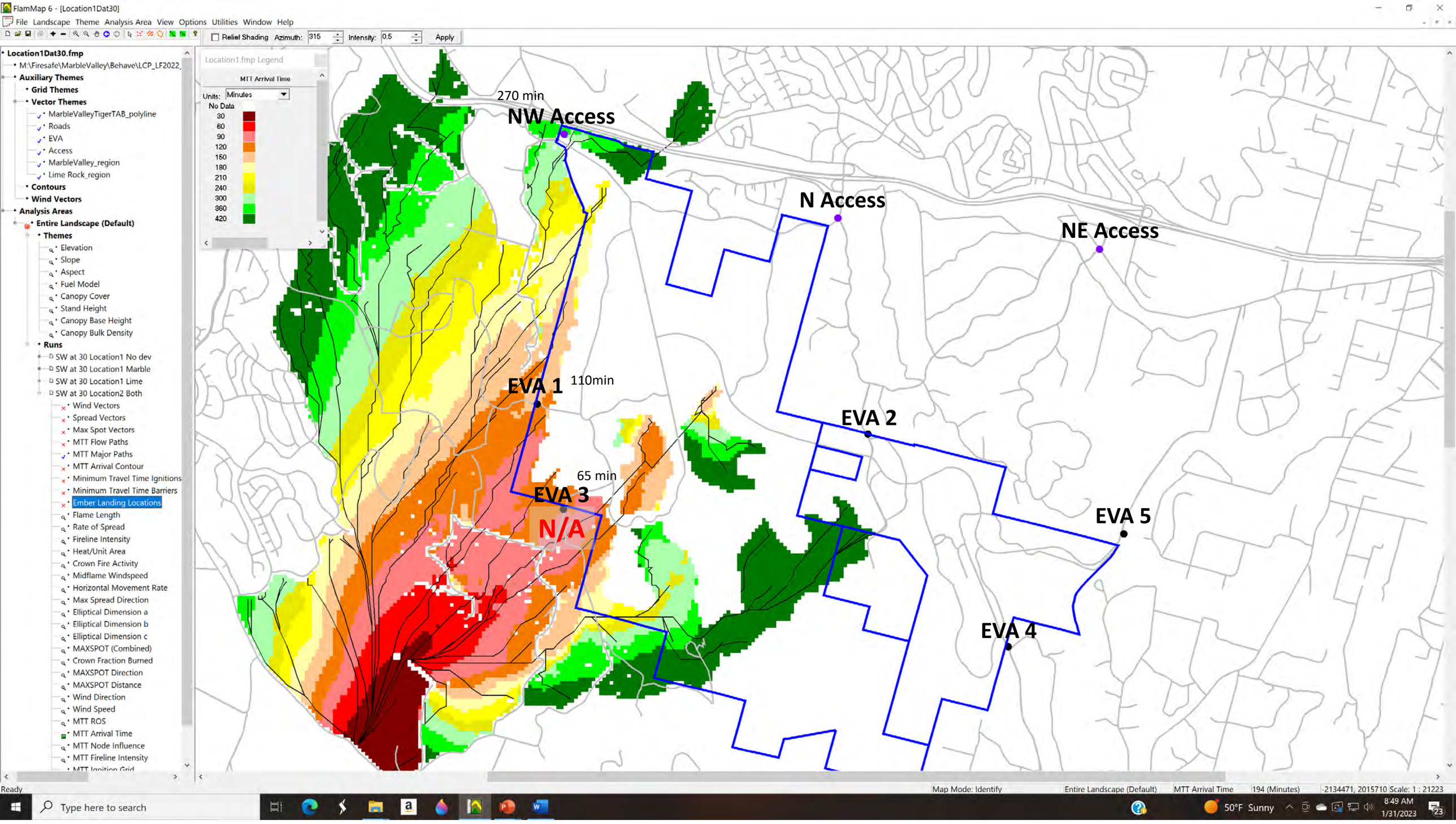
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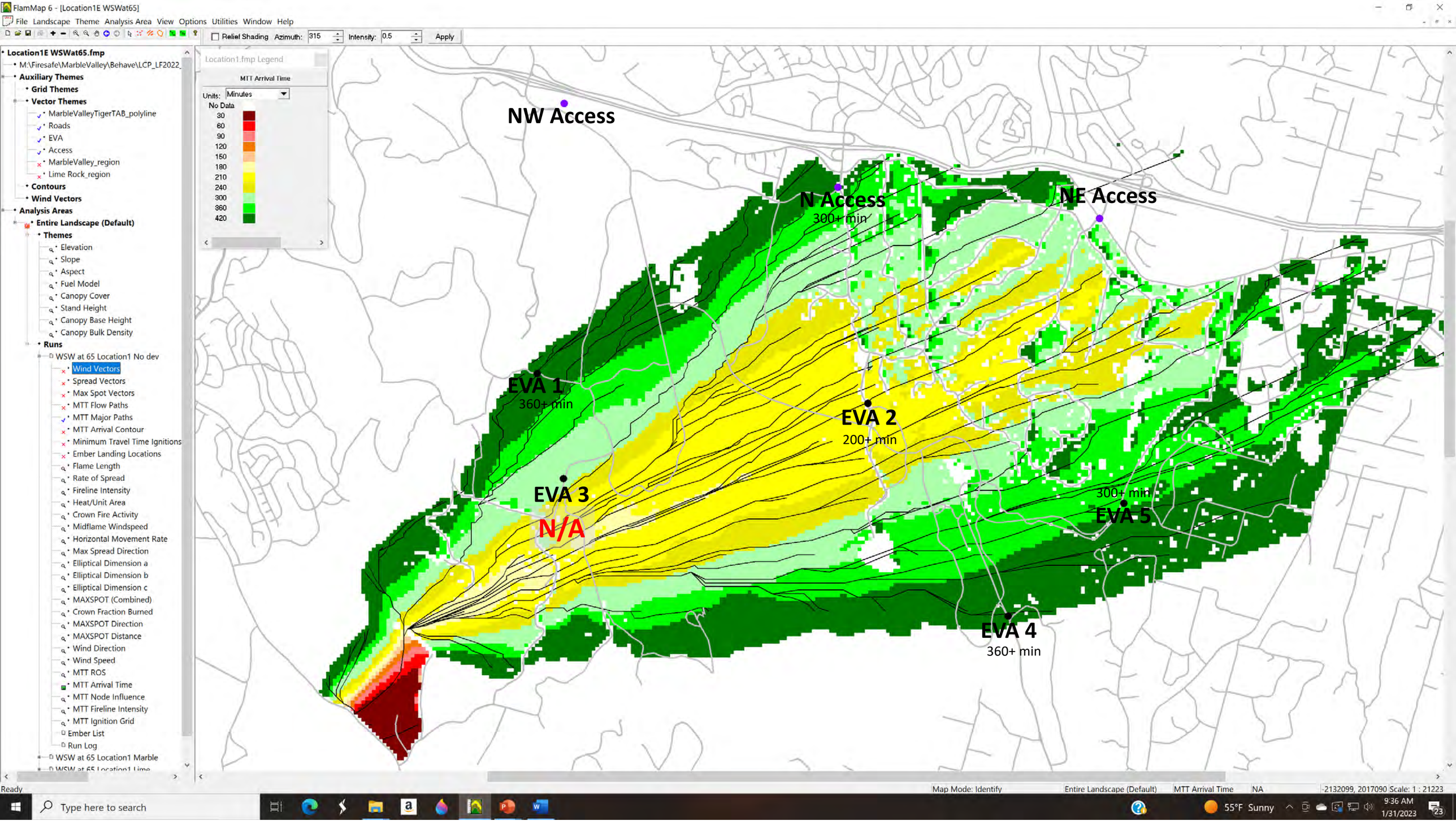
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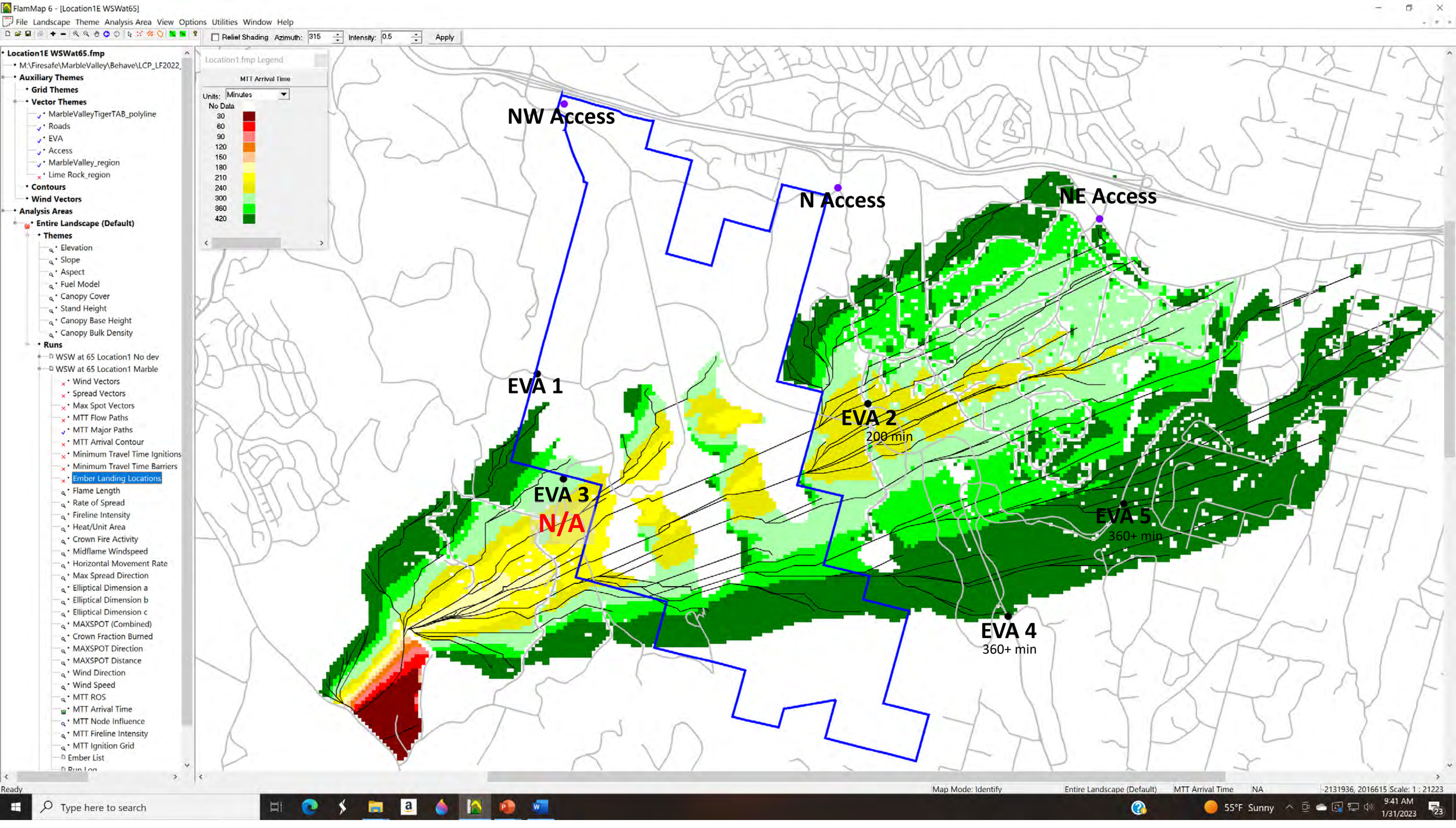
Location 1 SW wind at 30 mph Both – Scn 1R



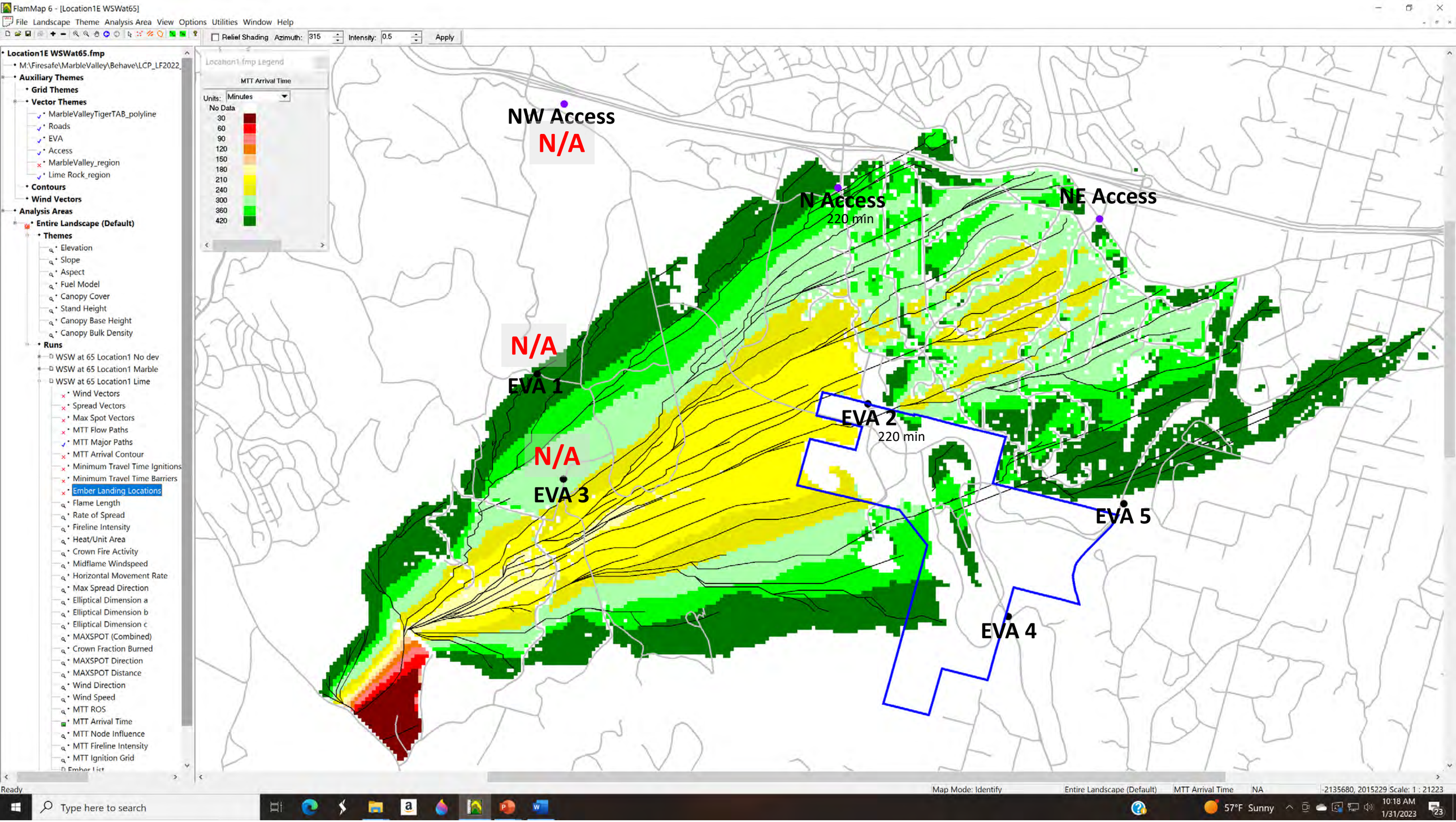
Location 1 WSW wind at 65 mph No Dev – Scn 1-S



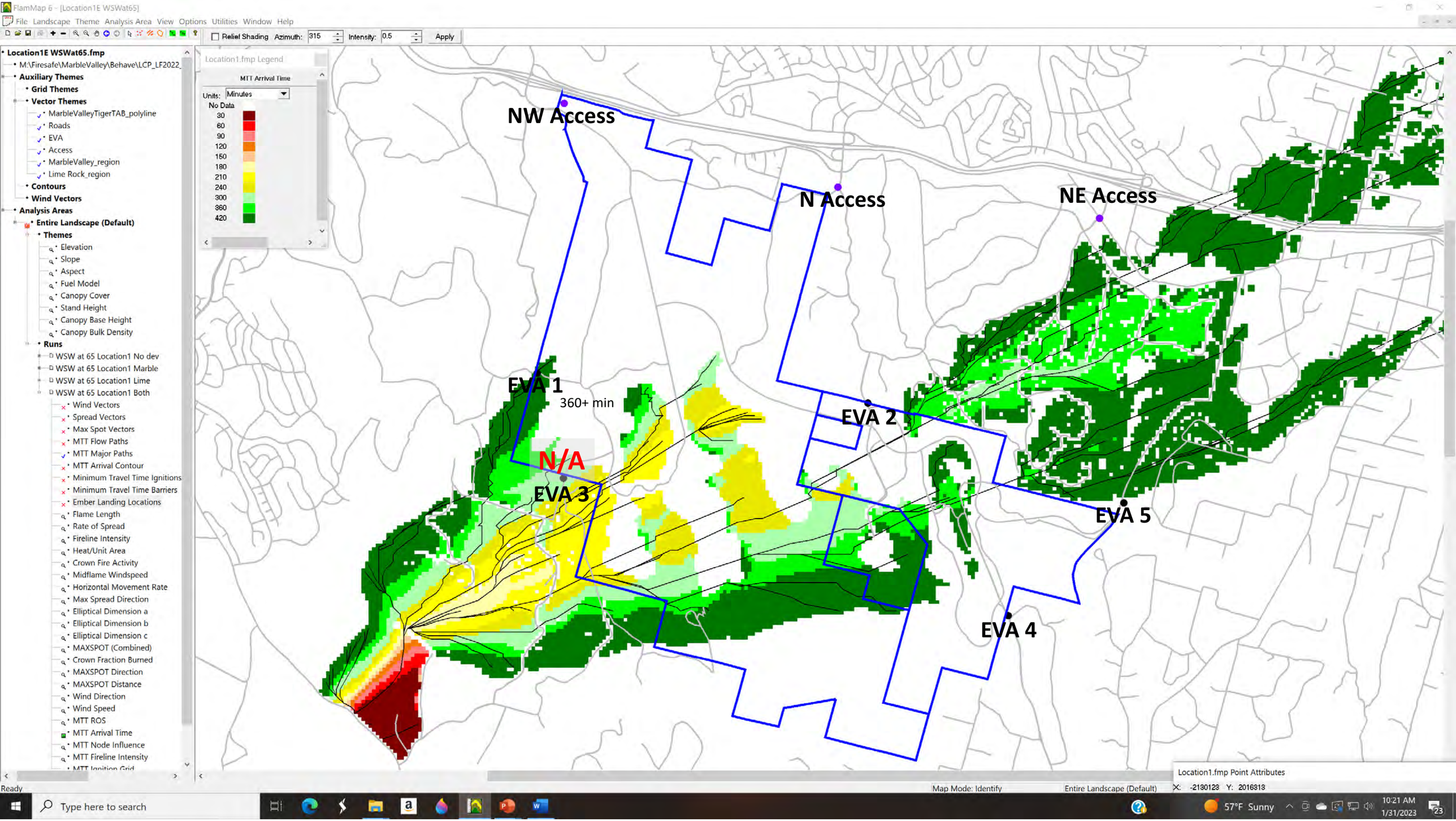
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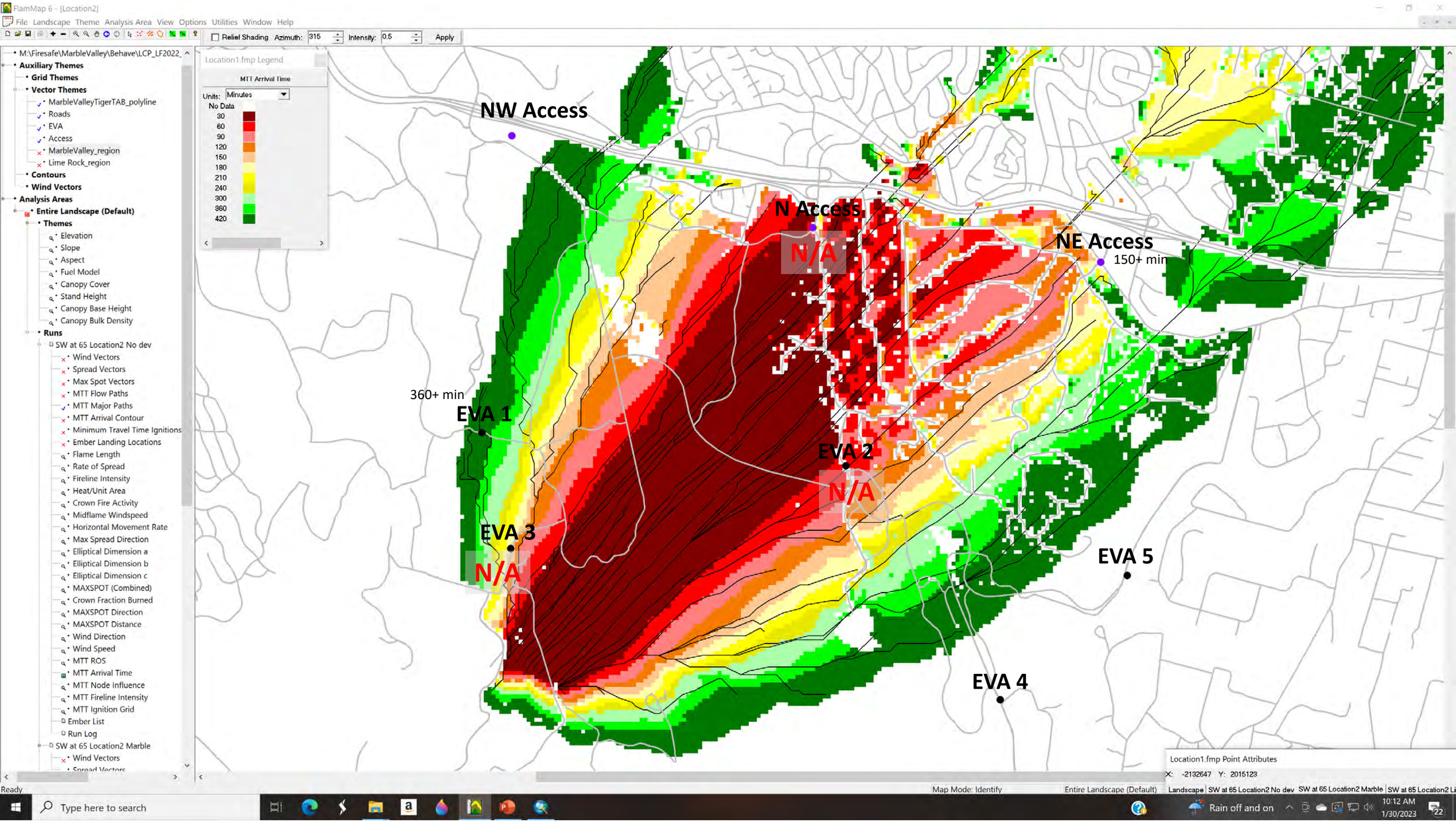
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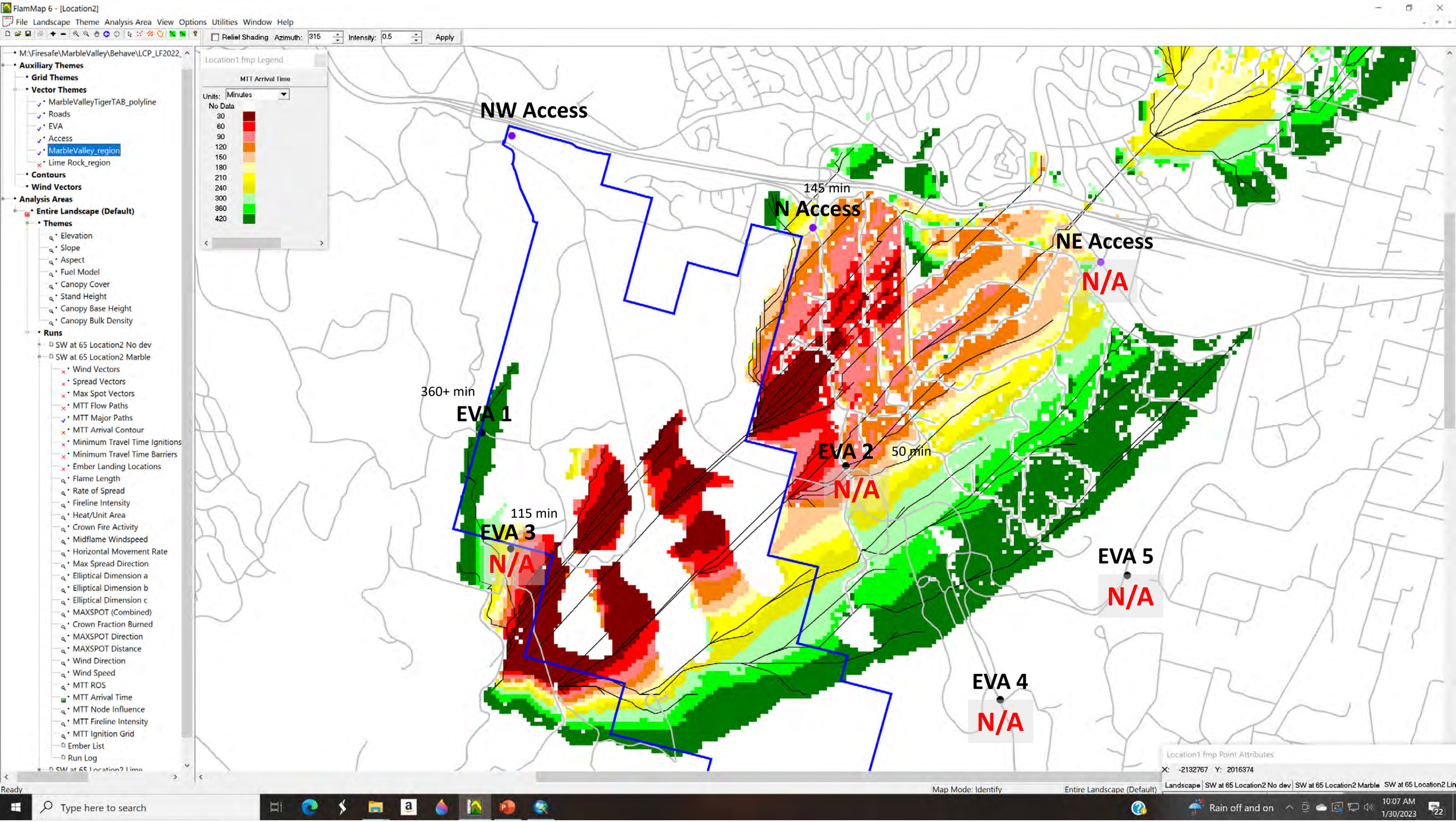
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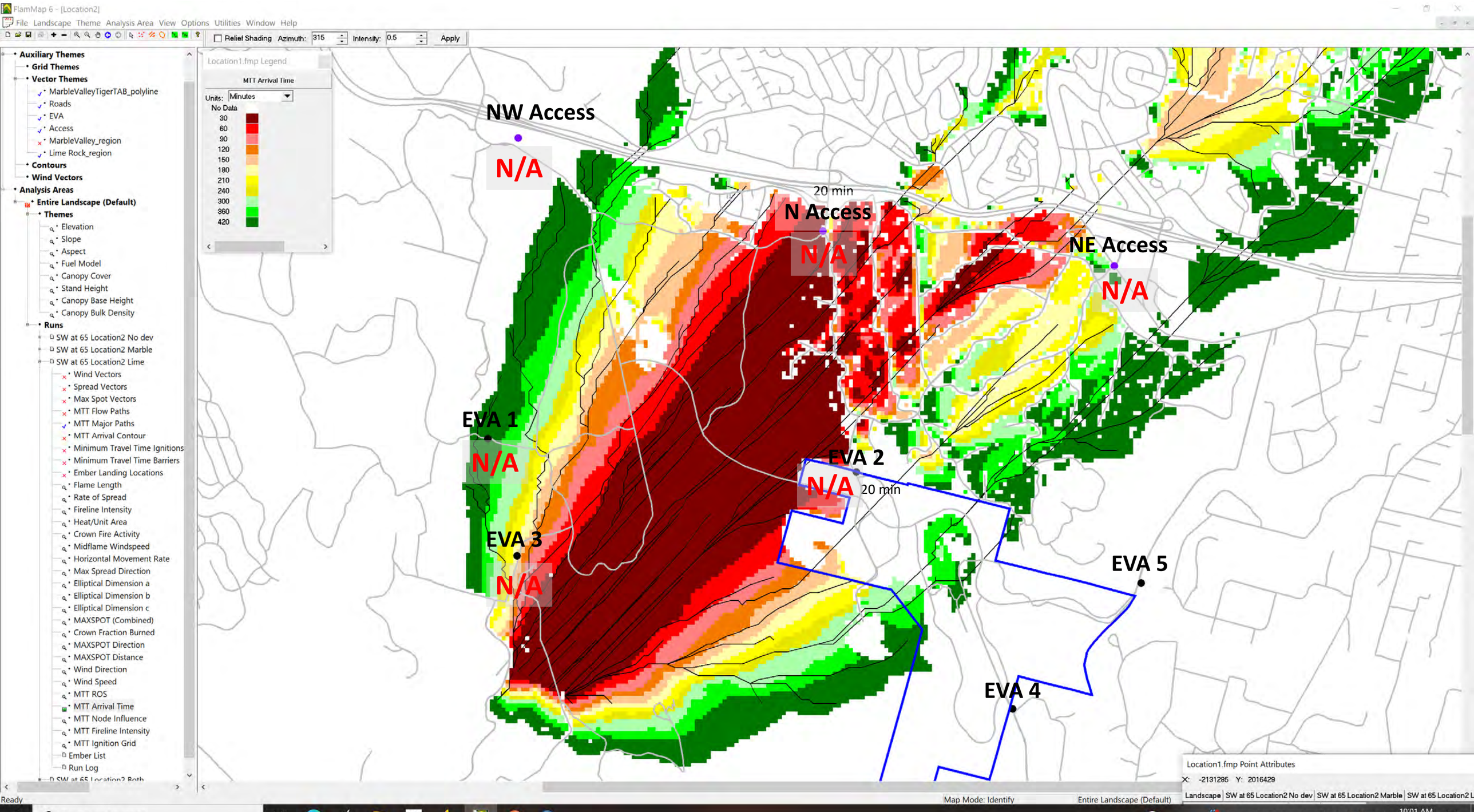
Location 2 SW wind at 65 mph No Dev – Scn 2A



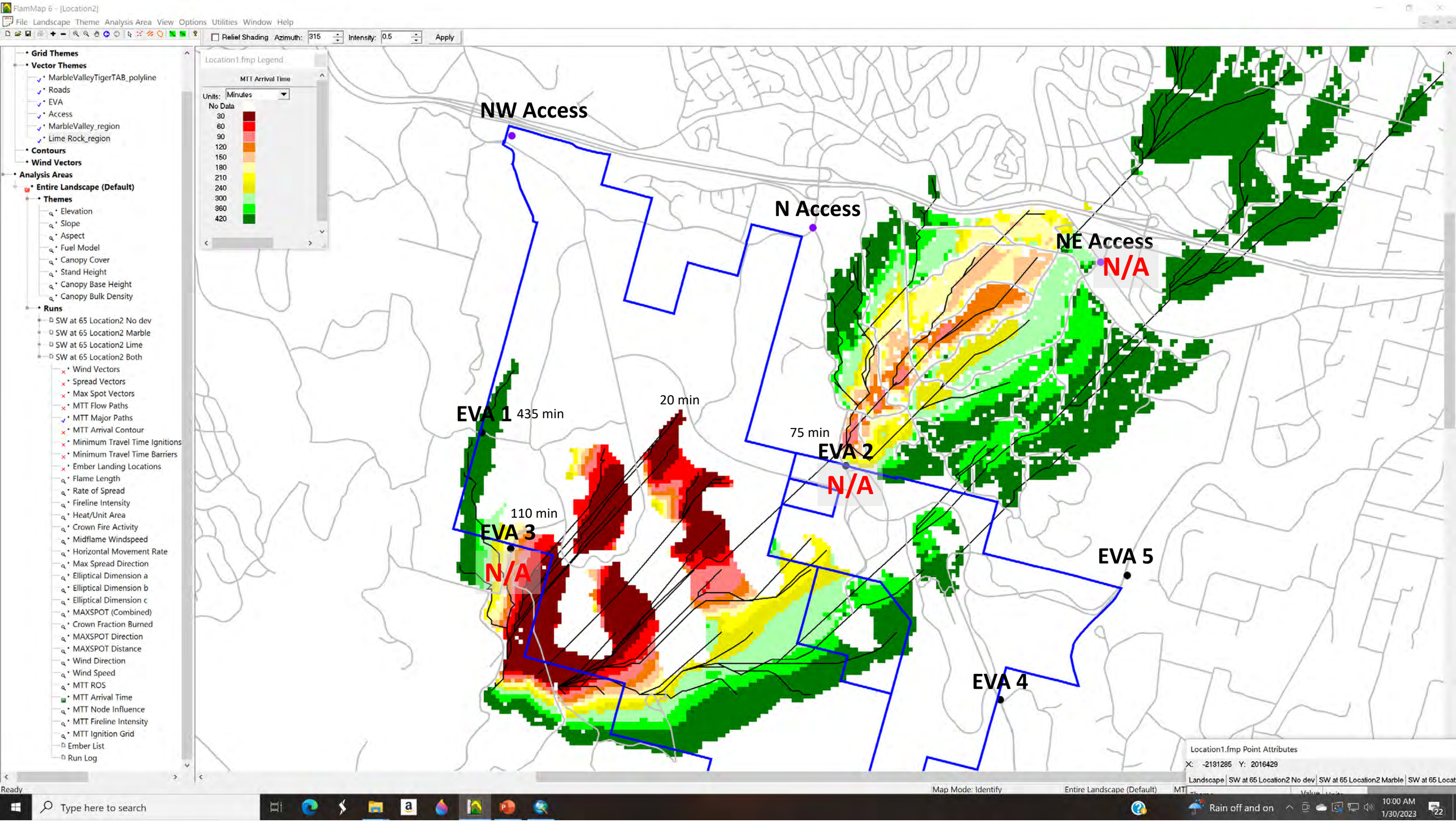
Location 2 SW wind at 65 mph Marble – Scn 2B



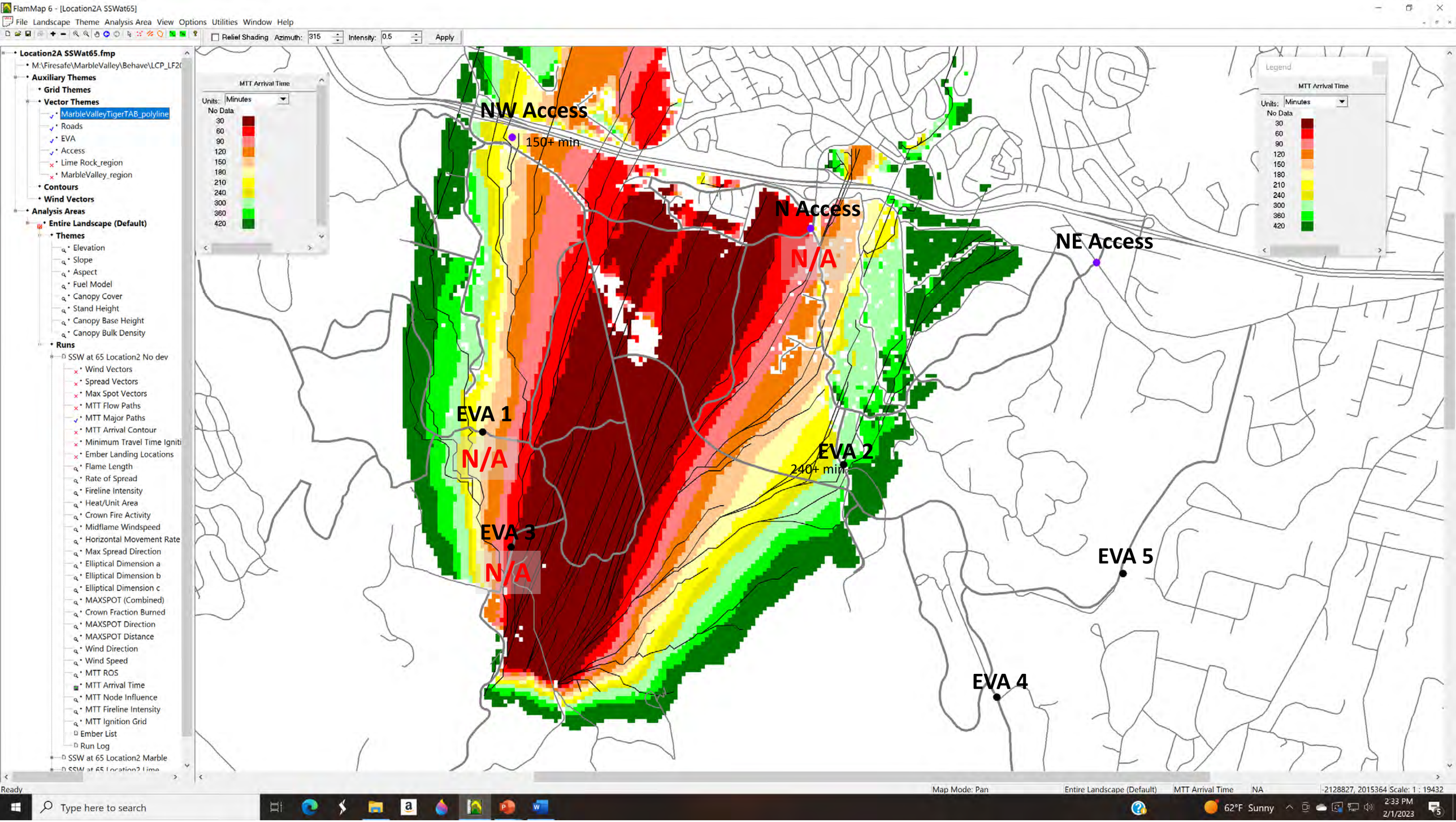
Location 2 SW wind at 65 mph Lime – Scn 2C



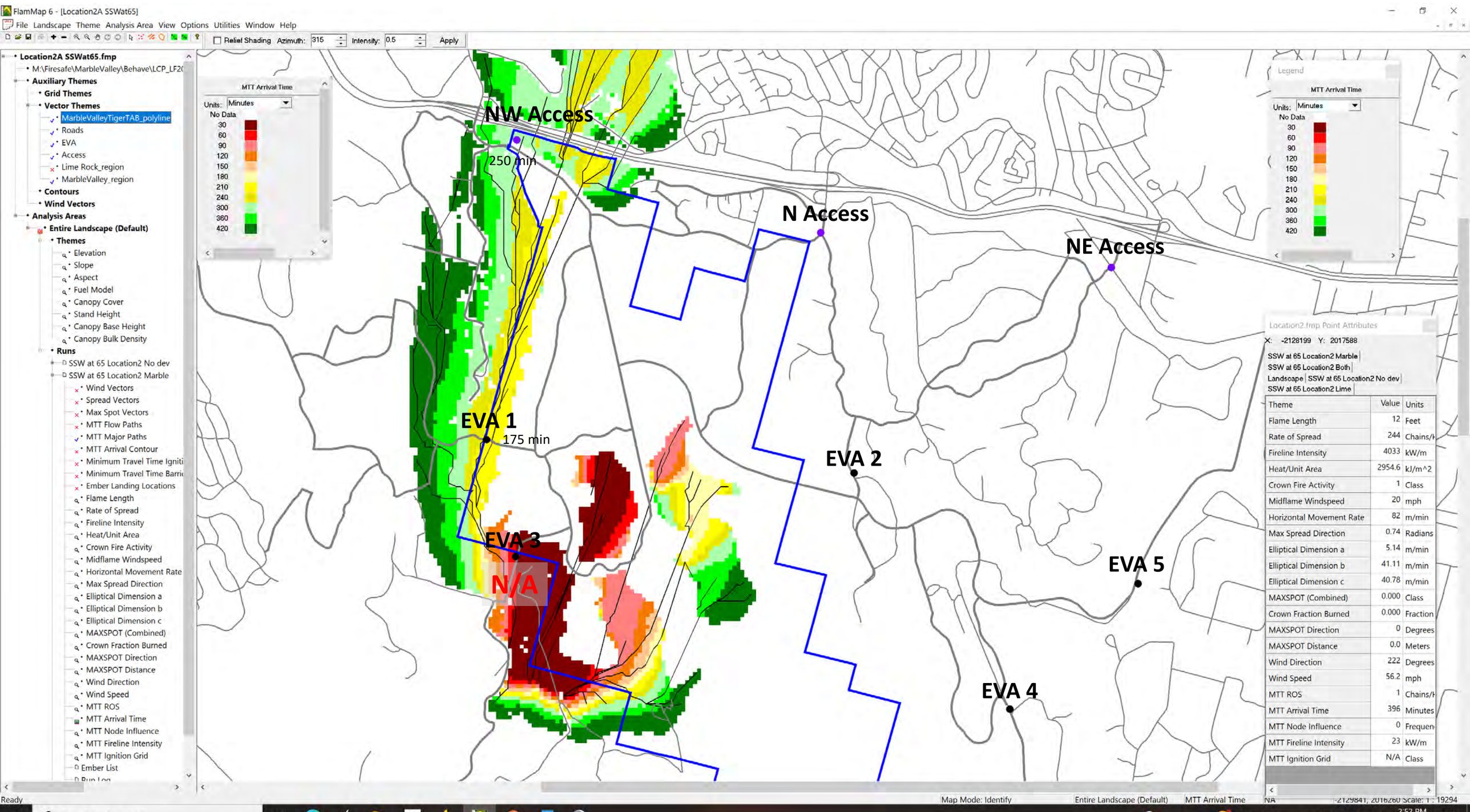
Location 2 SW wind at 65 mph Both – Scn 2D



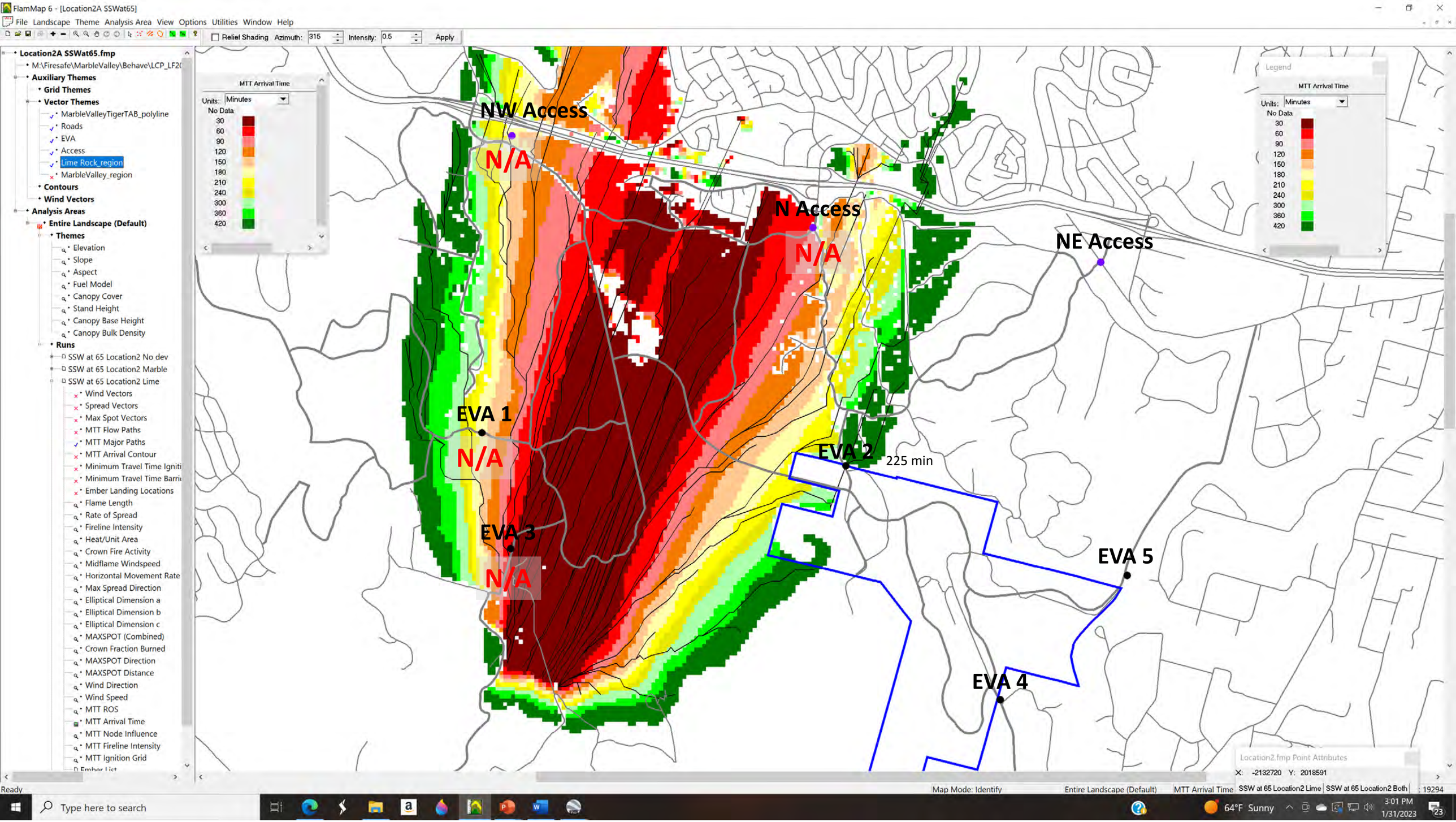
Location 2 SSW wind at 65 mph No Dev Scn 2E



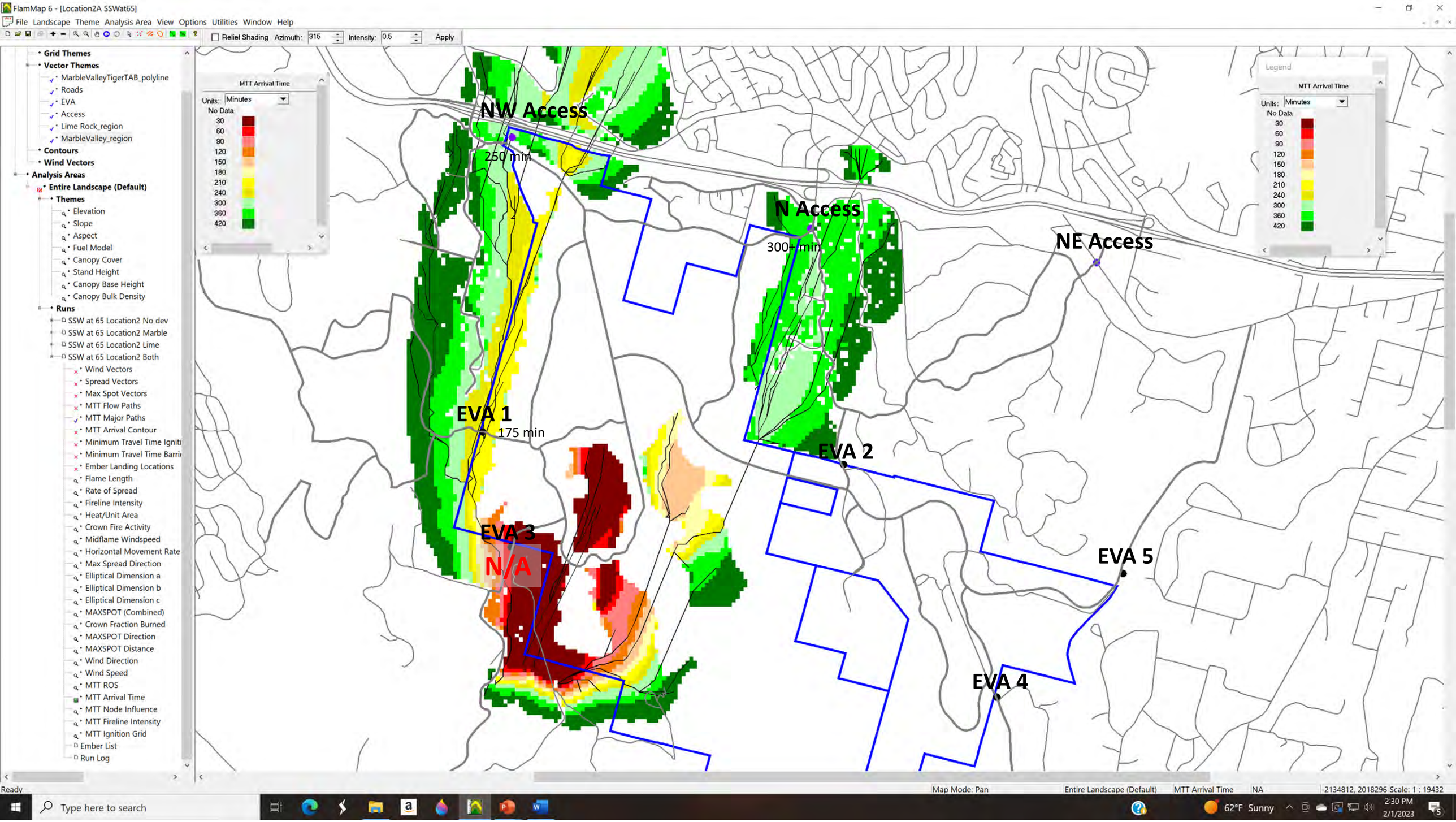
Location 2 SSW wind at 65 mph Marble – Scn 2F



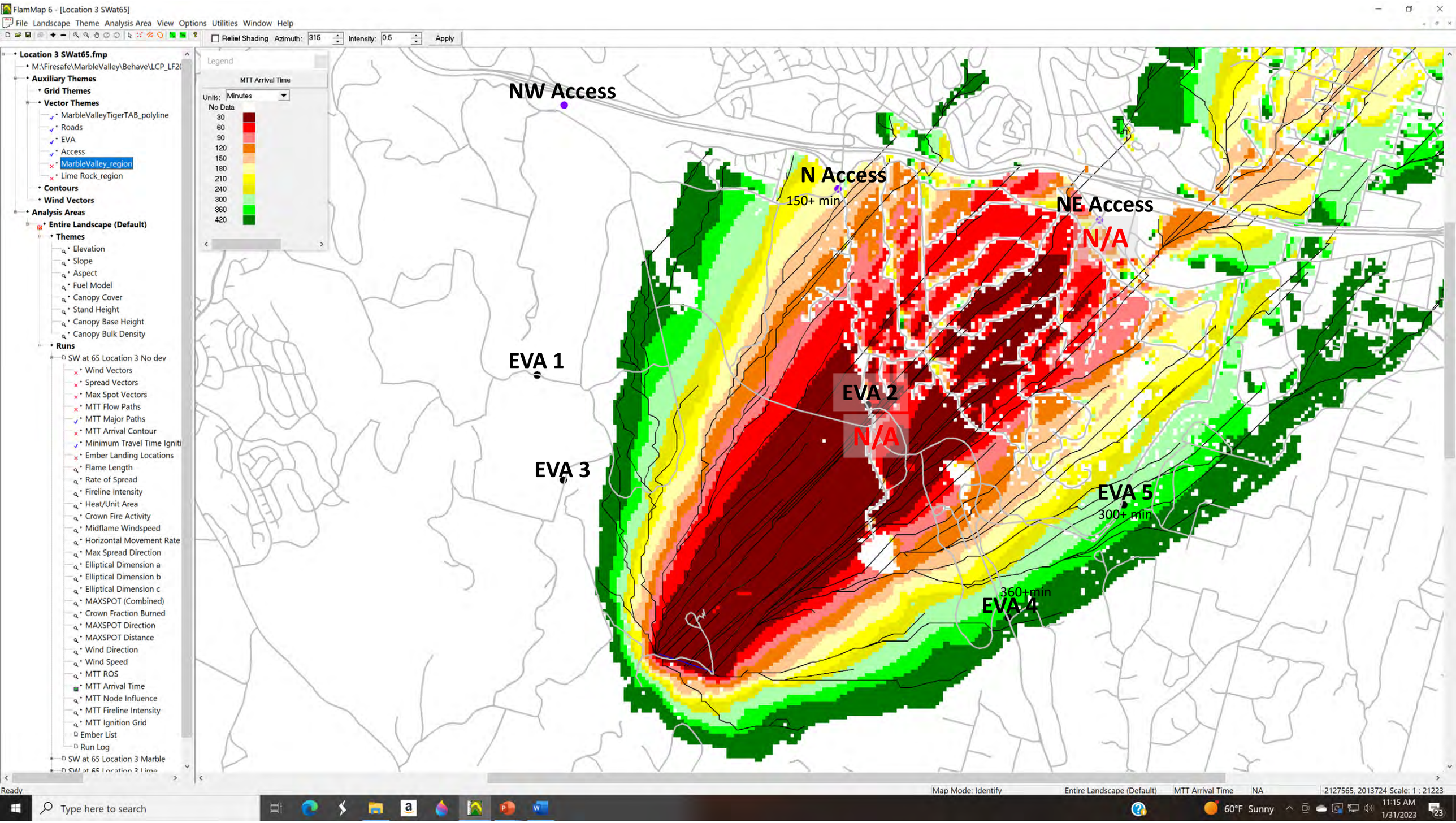
Location 2 SSW wind at 65 mph Lime – Scn 2G



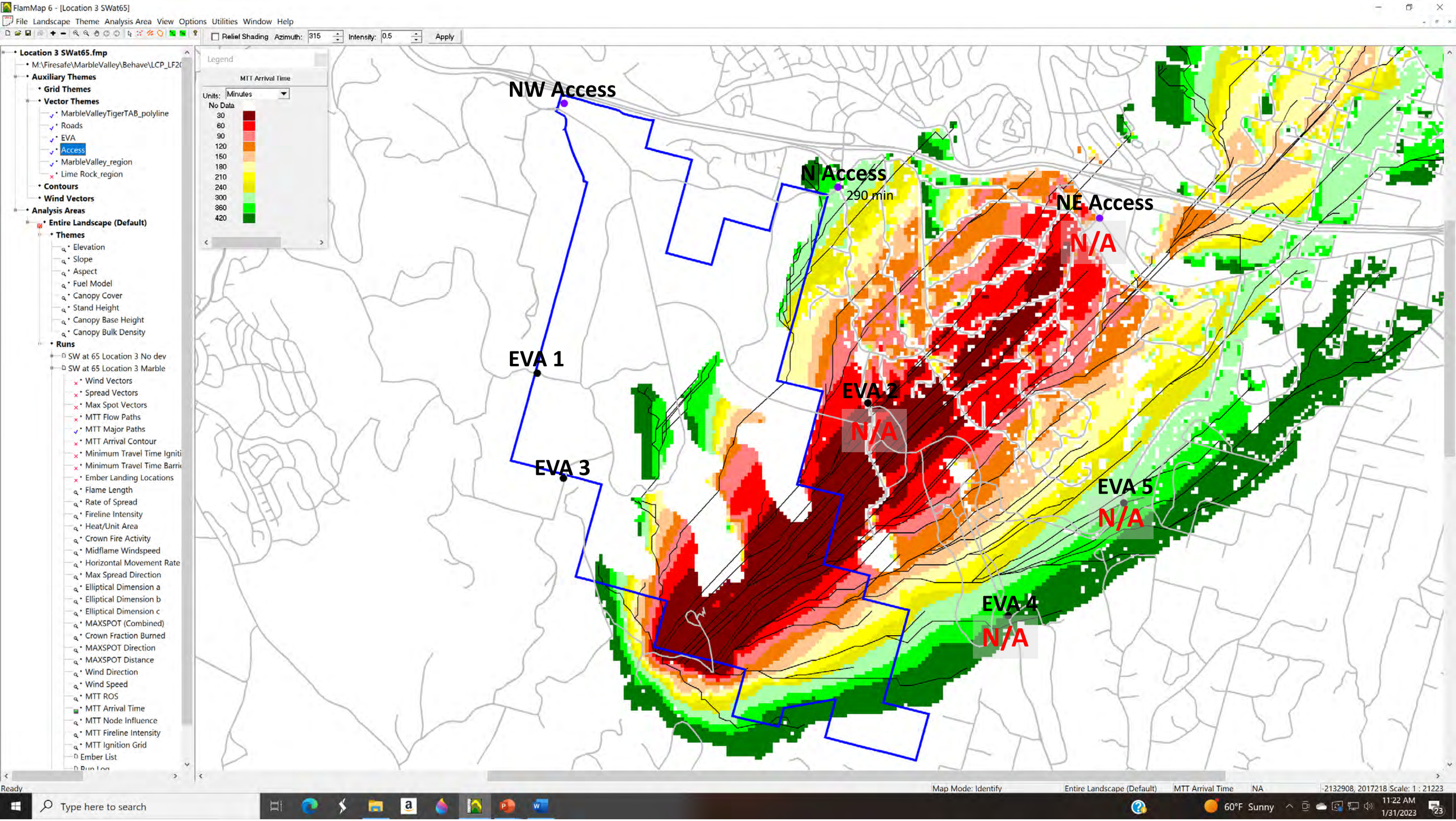
Location 2 SSW wind at 65 mph Both – Scn 2H



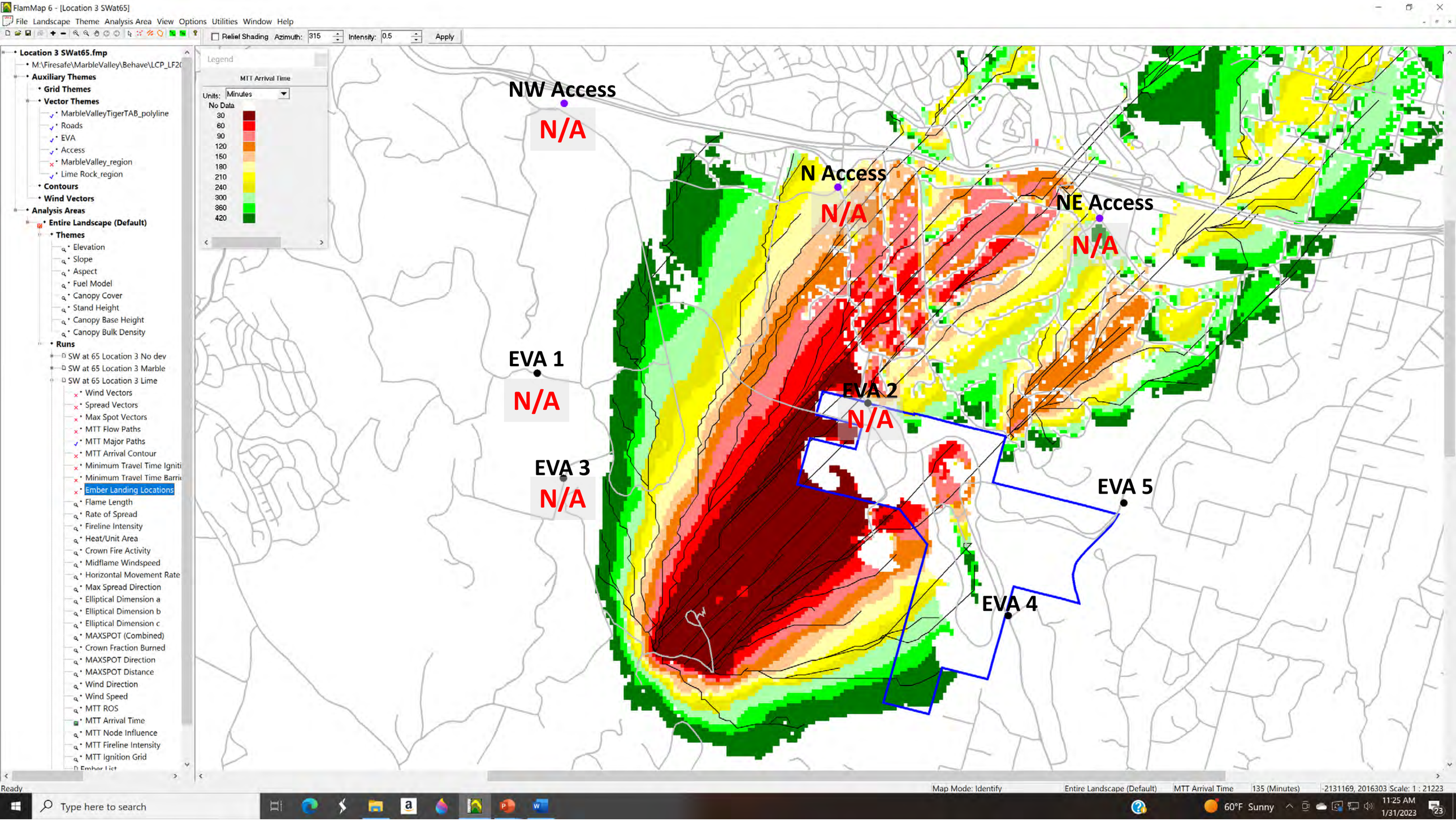
Location 3 SW wind at 65 mph No Dev – Scn 3A



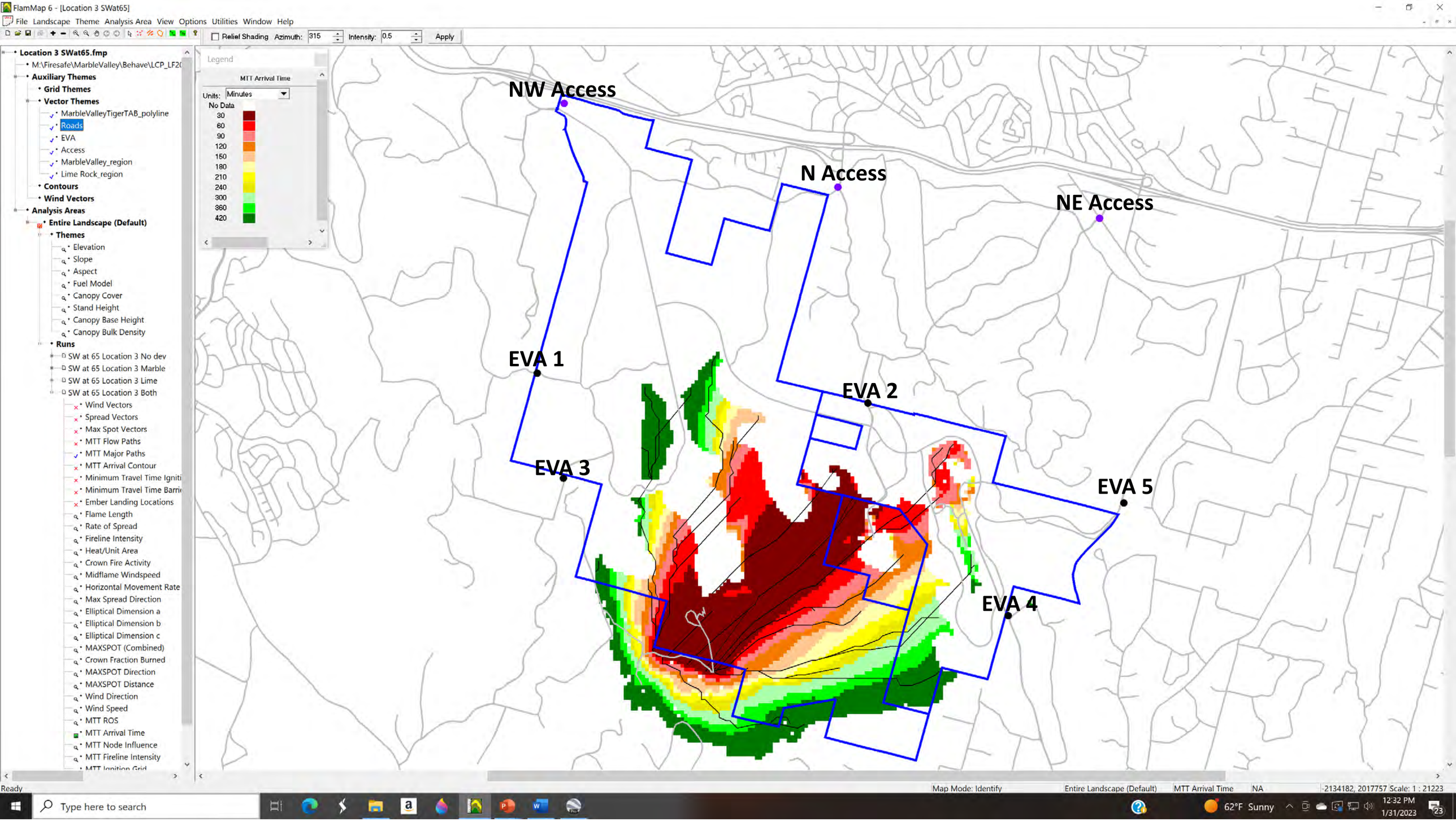
Location 3 SW wind at 65 mph Marble – Scn 3B



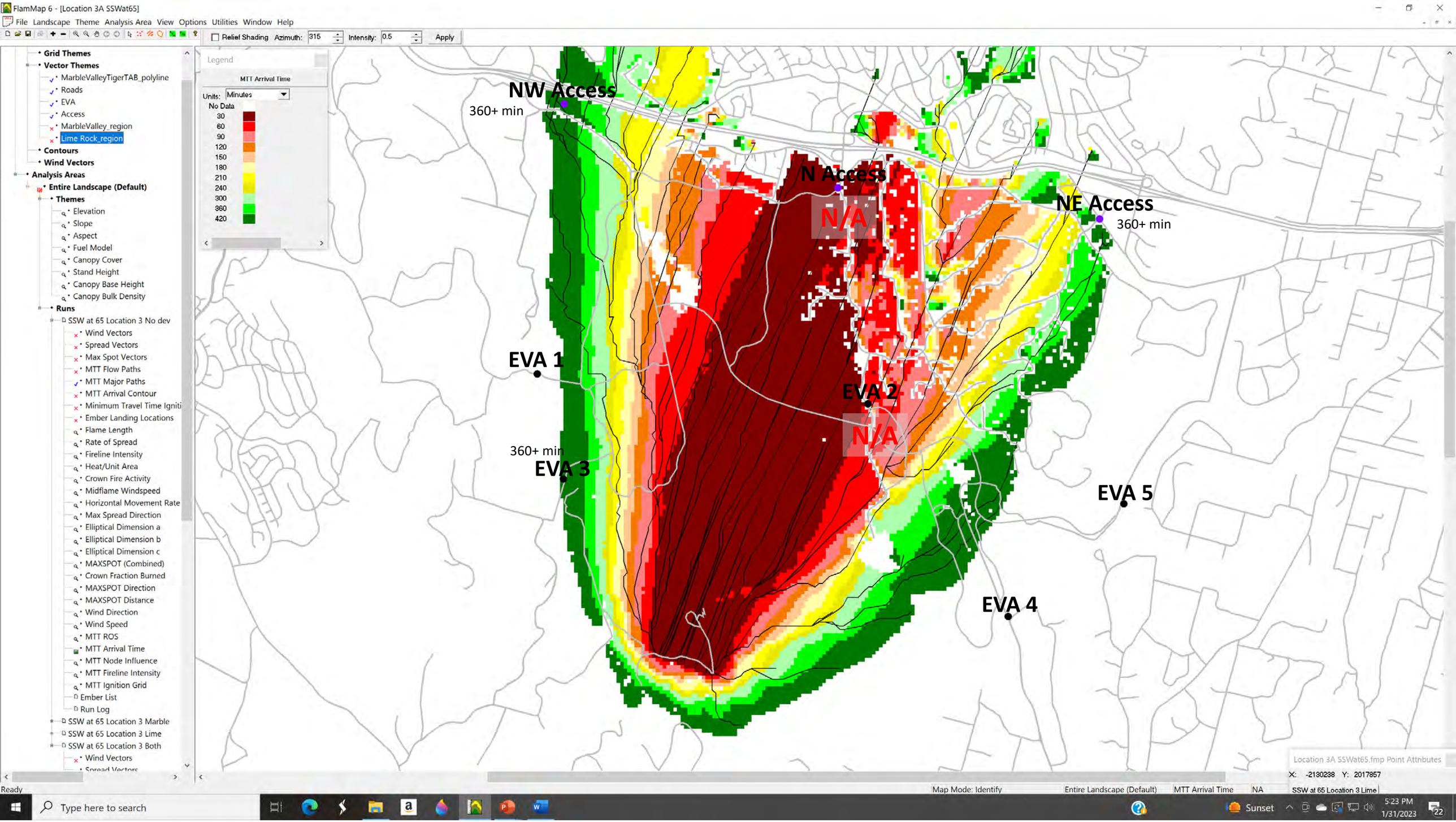
Location 3 SW wind at 65 mph Lime – Scn 3C



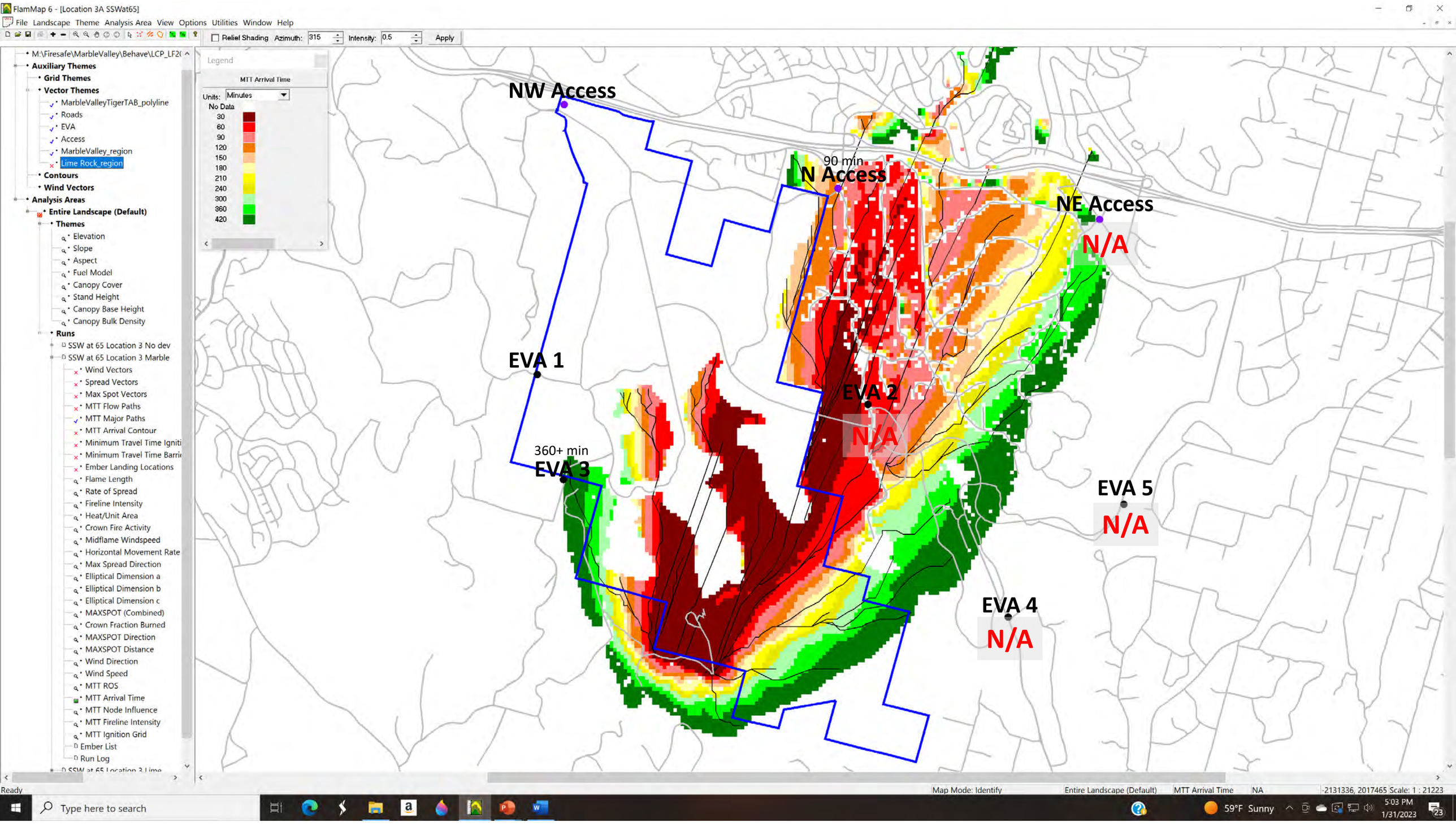
Location 3 SW wind at 65 mph Both – Scn 3D



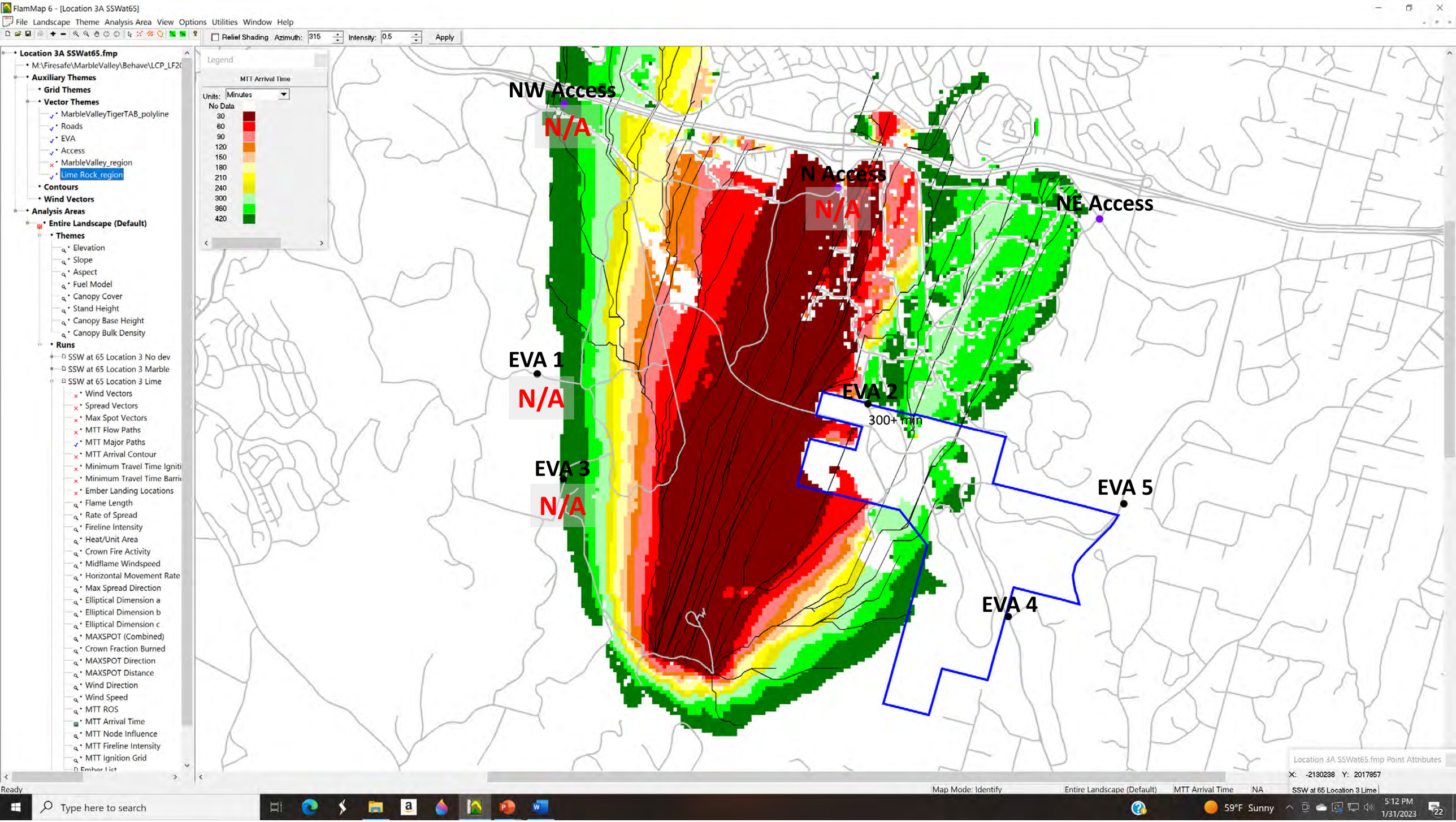
Location 3 SSW wind at 65 mph No Dev Scn 3E



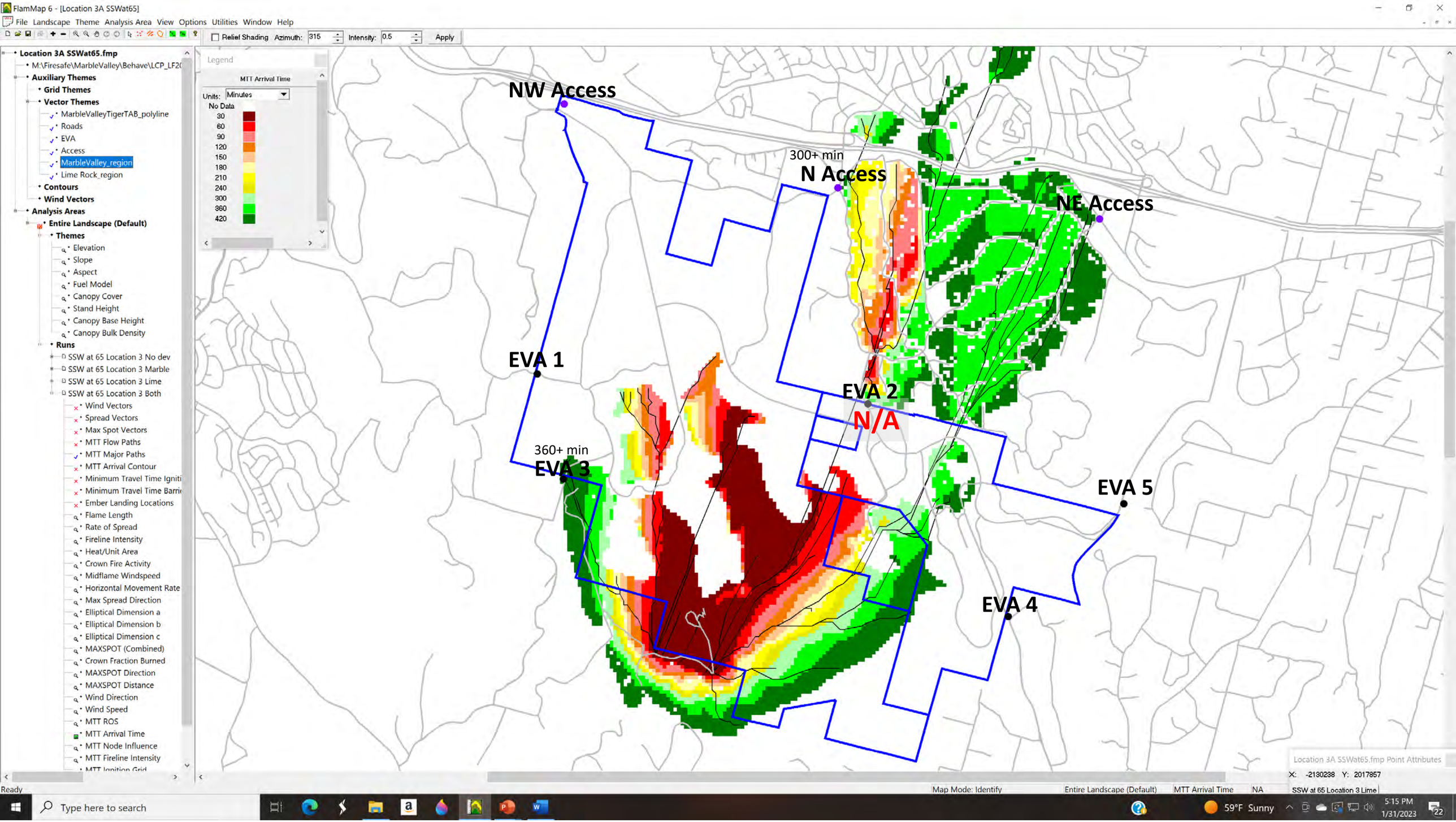
Location 3 SSW wind at 65 mph Marble – Scn 3F



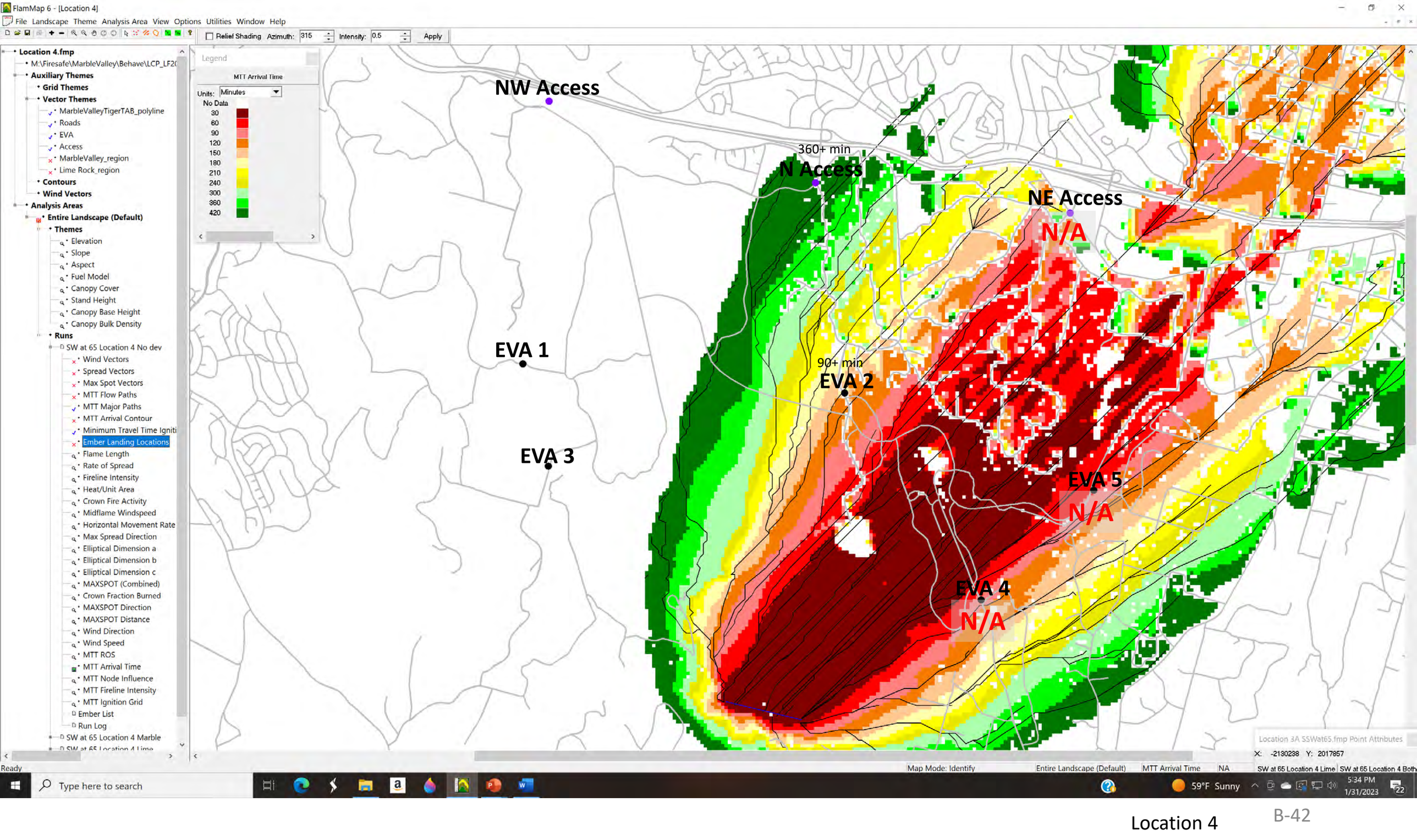
Location 3 SSW wind at 65 mph Lime – Scn 3G



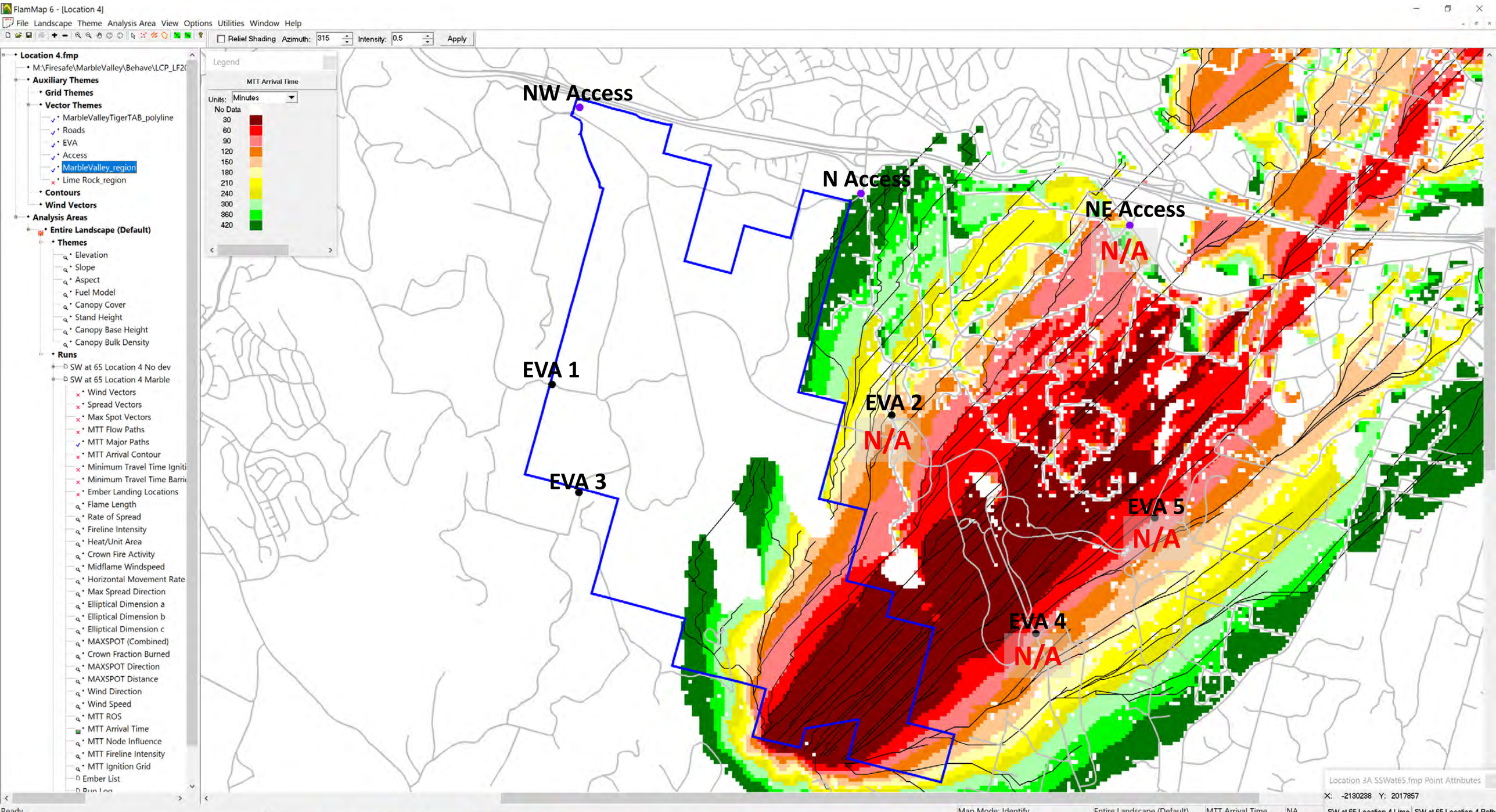
Location 3 SSW wind at 65 mph Both – Scn 3H



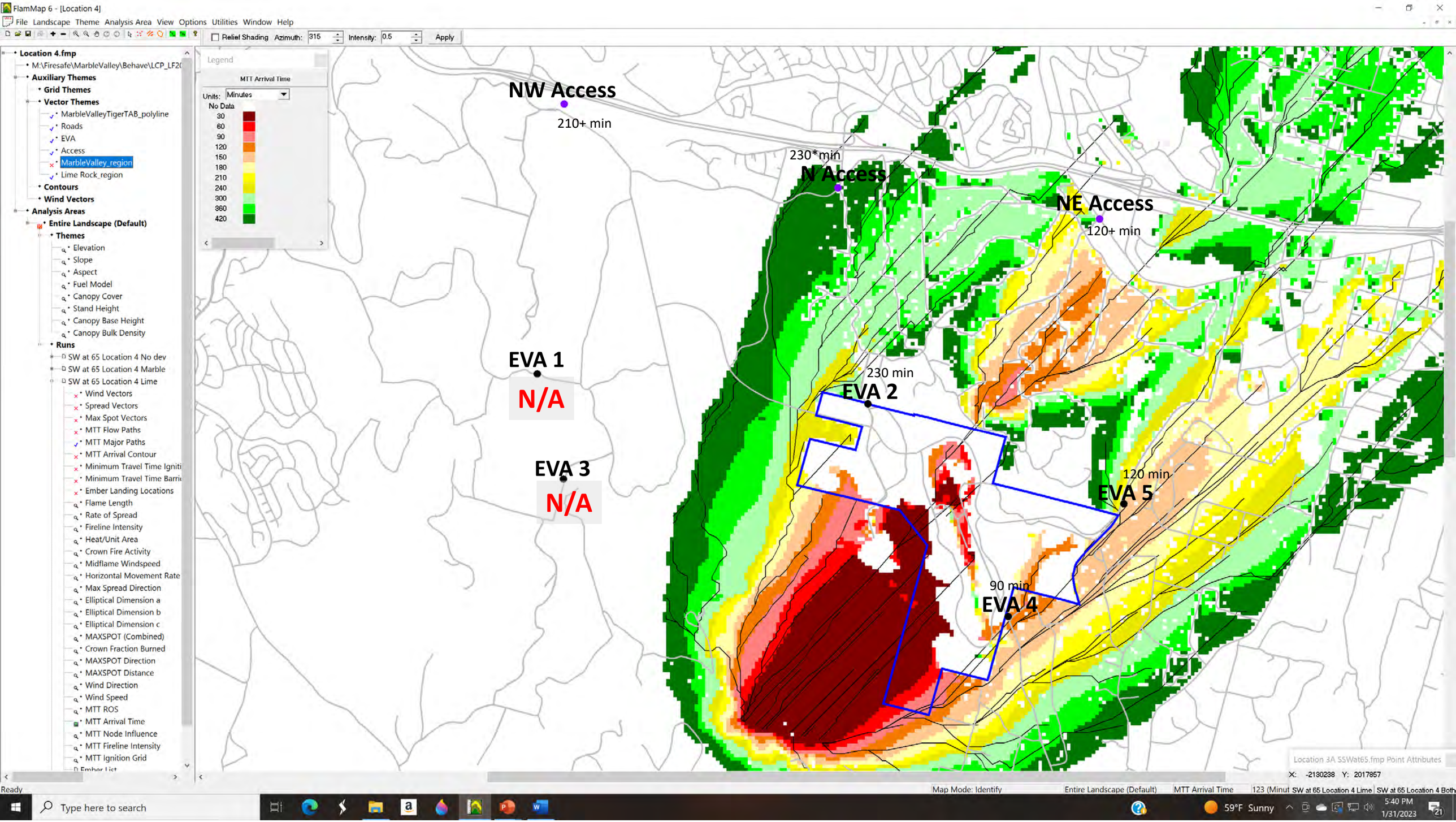
Location 4 SW wind at 65 mph No Dev – Scn 4A



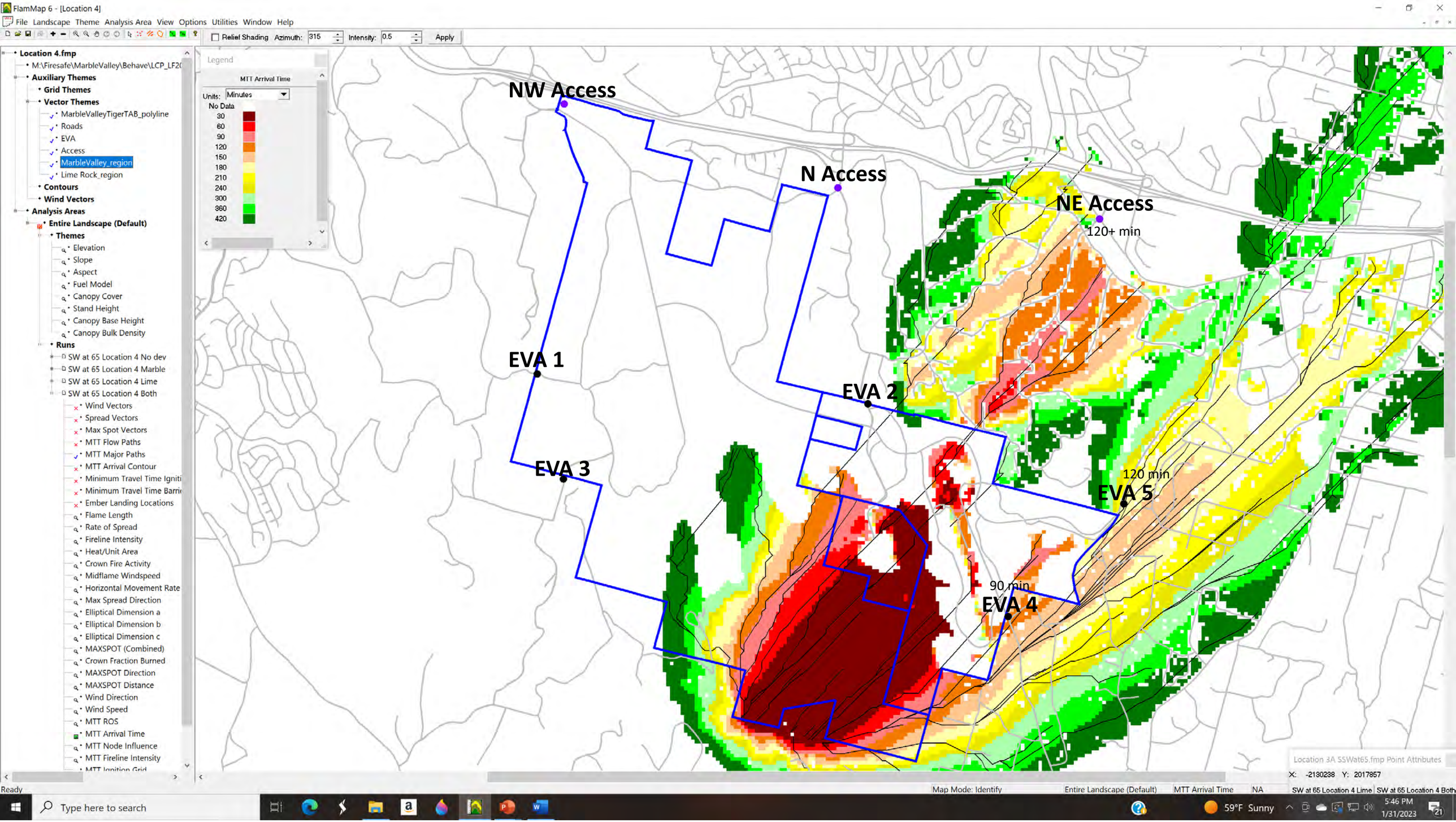
Location 4 SW wind at 65 mph Marble – Scn 4B



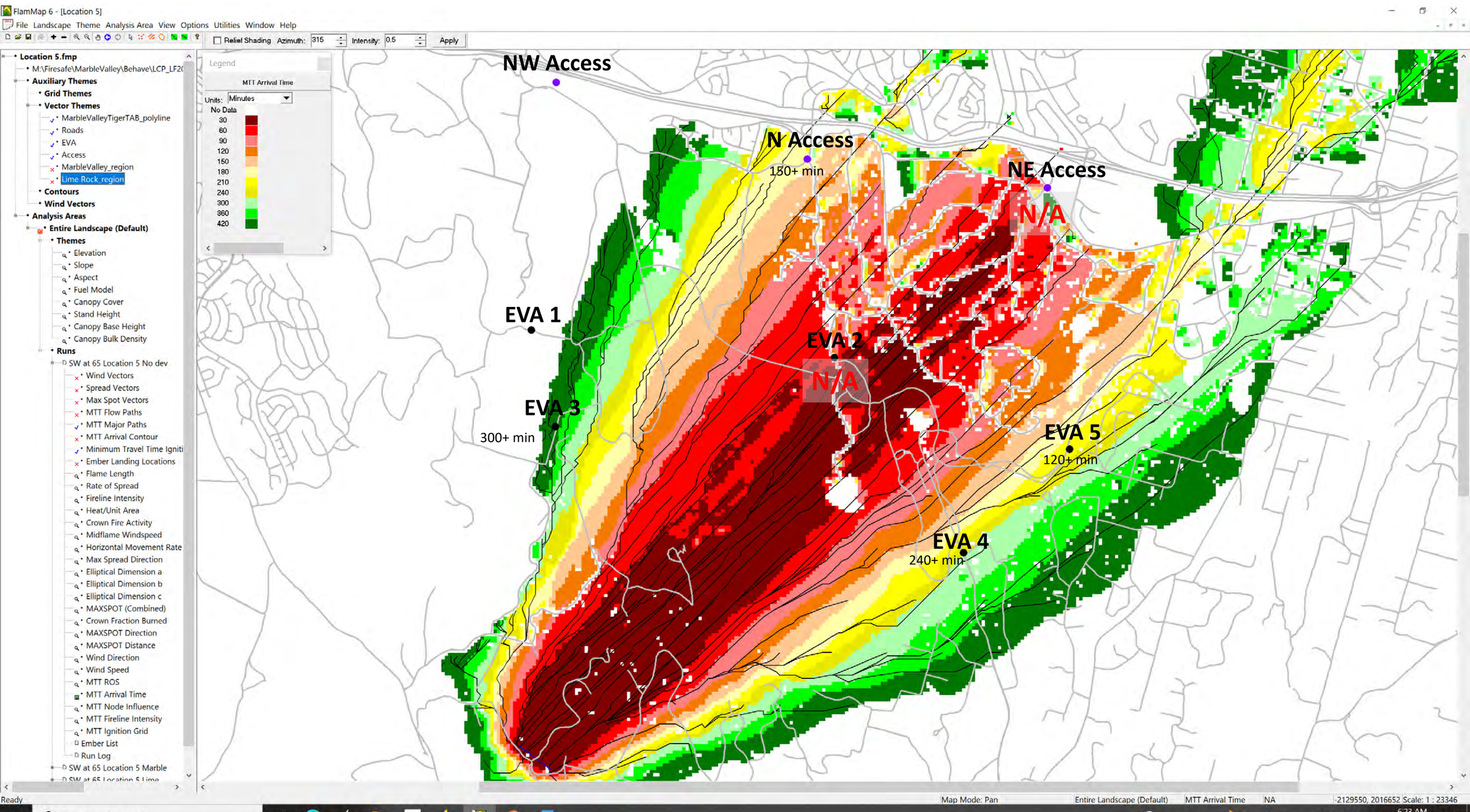
Location 4 SW wind at 65 mph Lime – Scn 4C



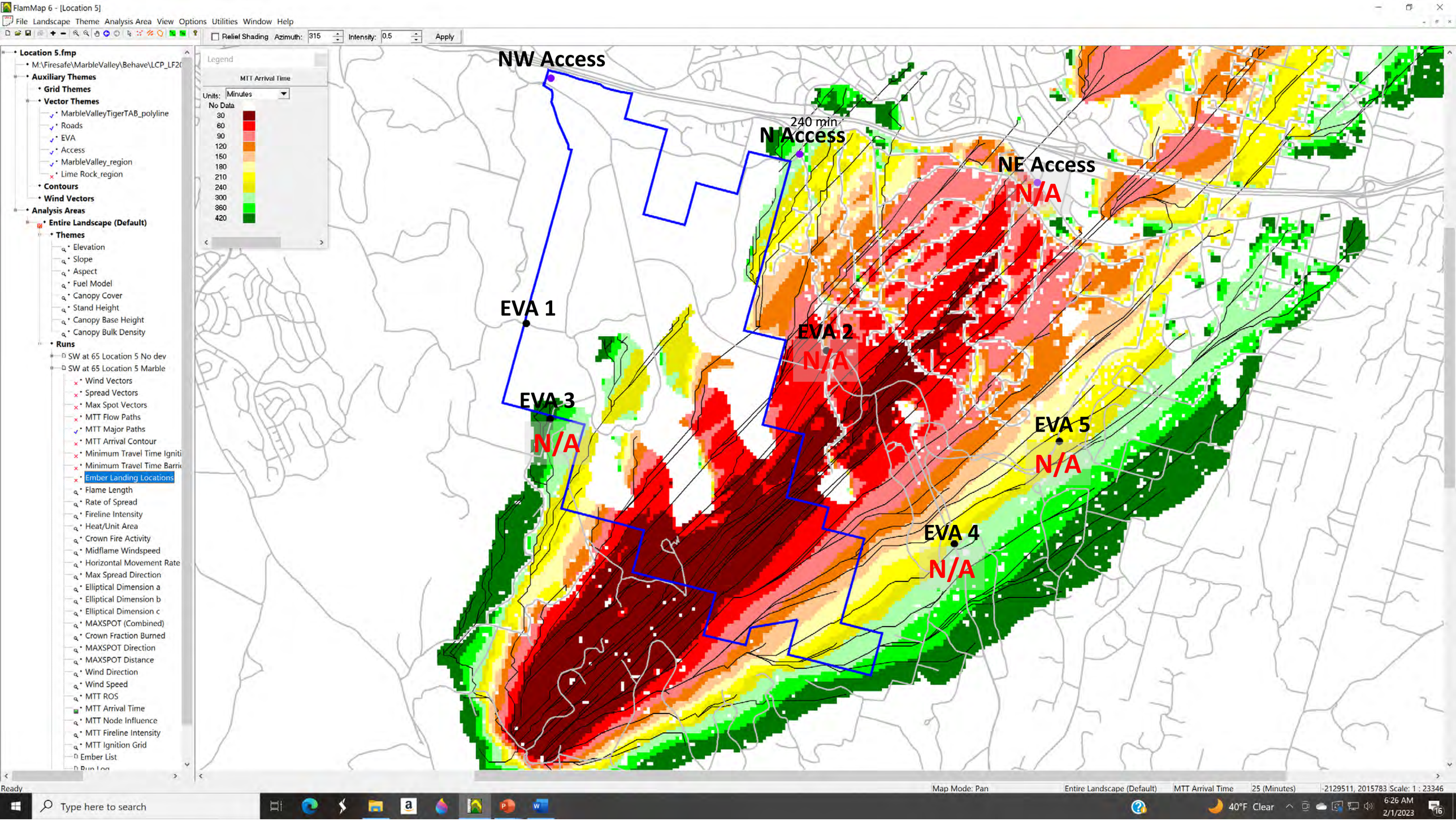
Location 4 SW wind at 65 mph Both – Scn 4D



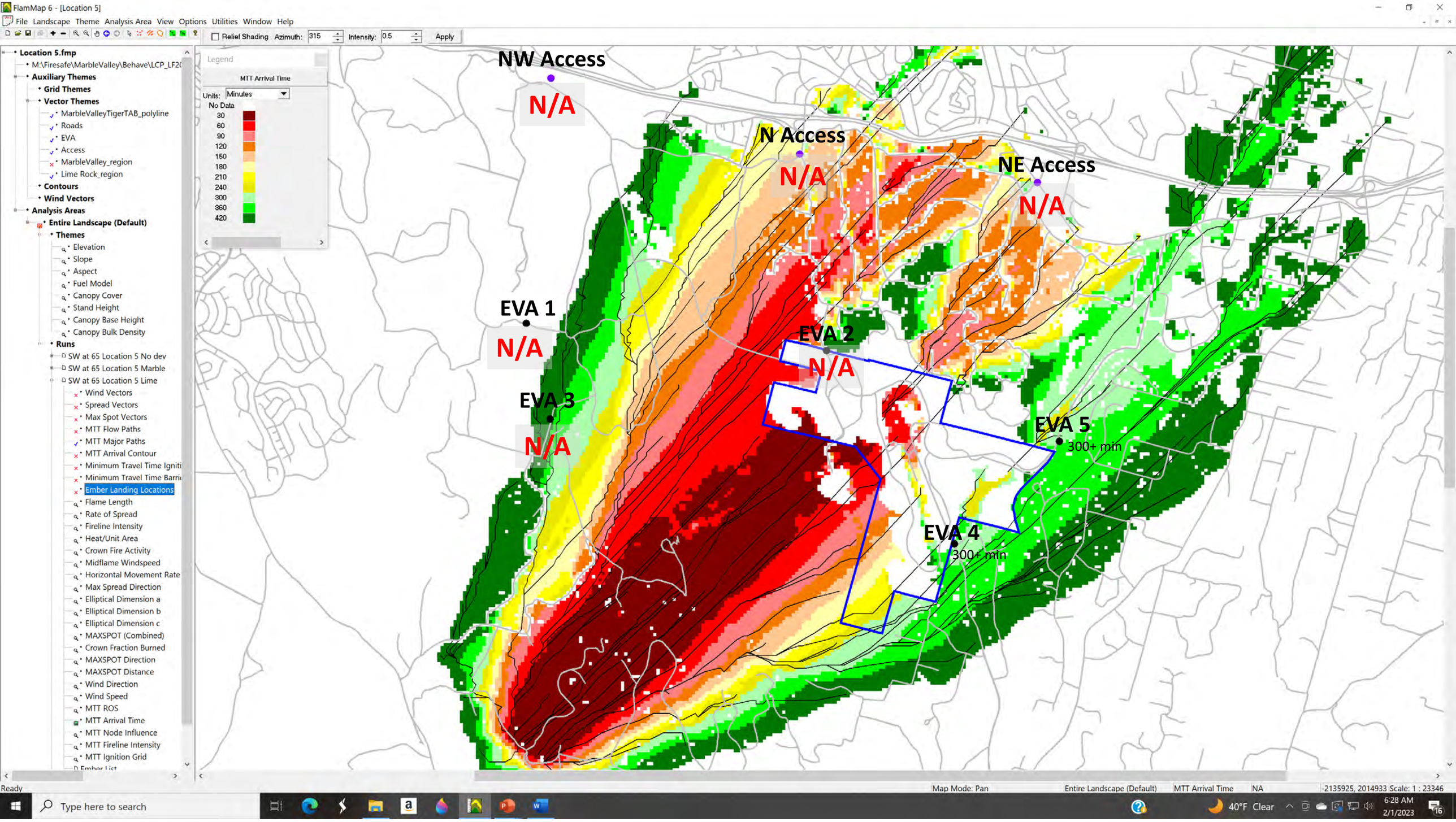
Location 5 SW wind at 65 mph No Dev – Scn 5A



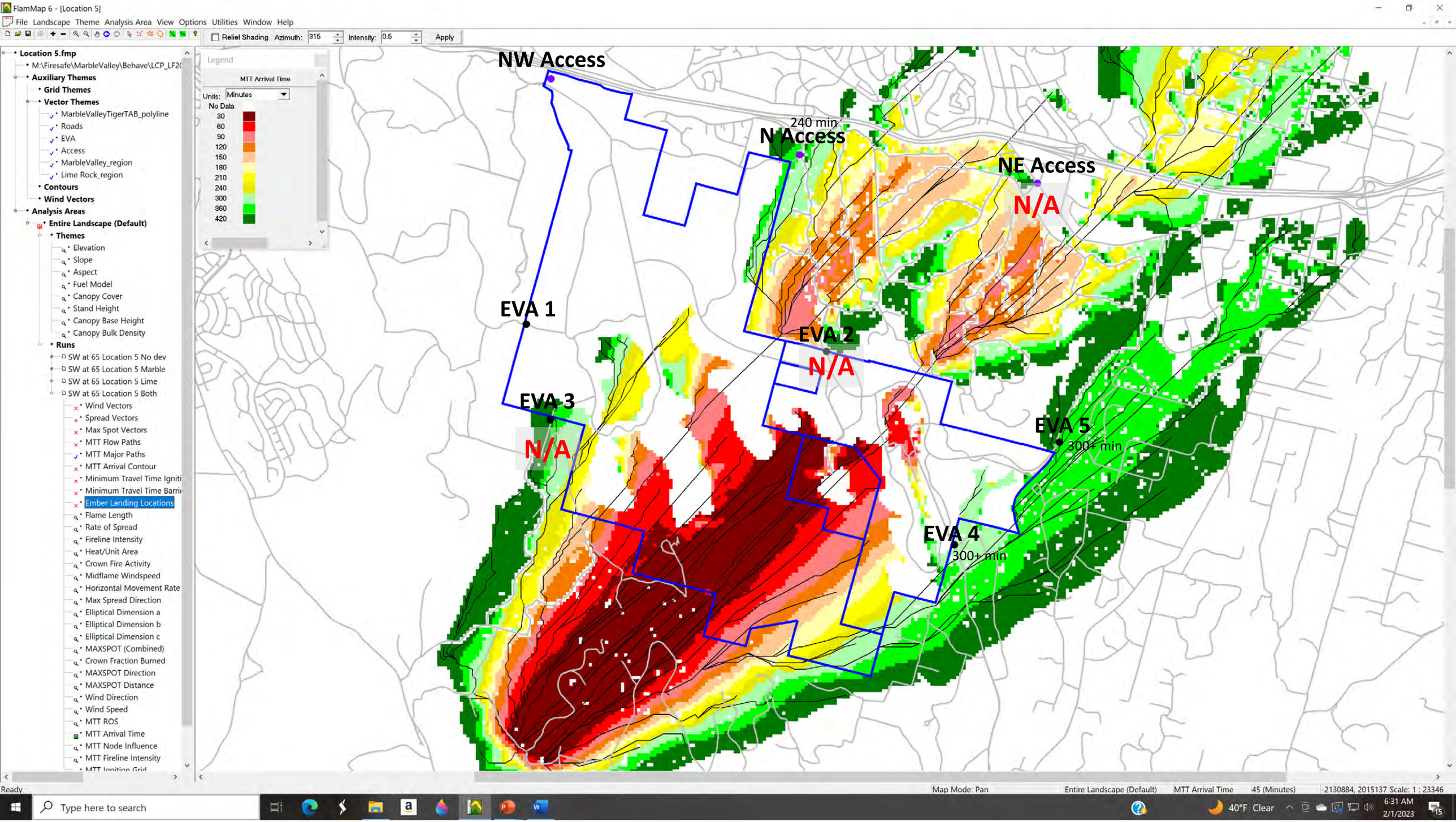
Location 5 SW wind at 65 mph Marble – Scn 5B



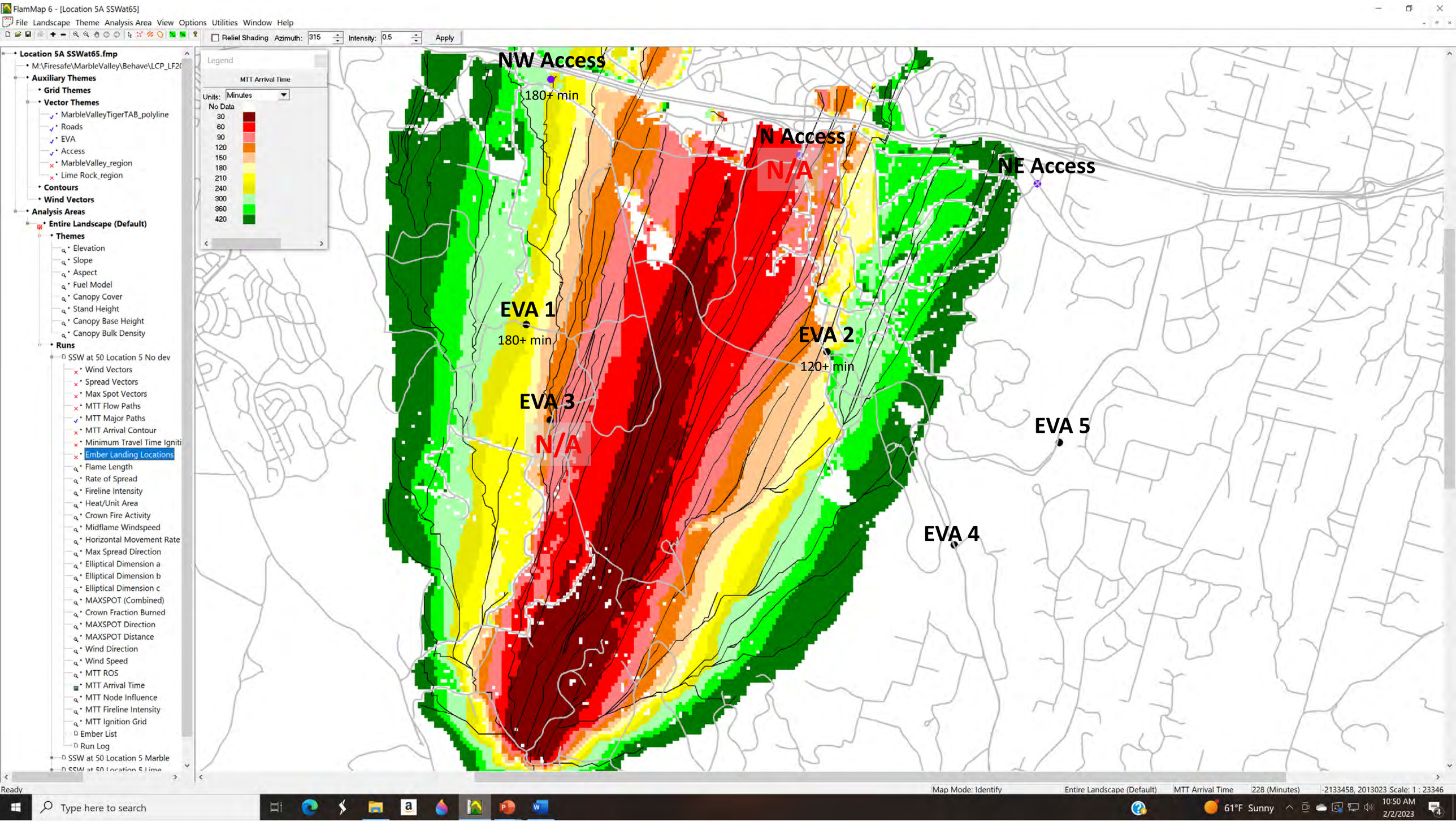
Location 5 SW wind at 65 mph Lime – Scn 5C



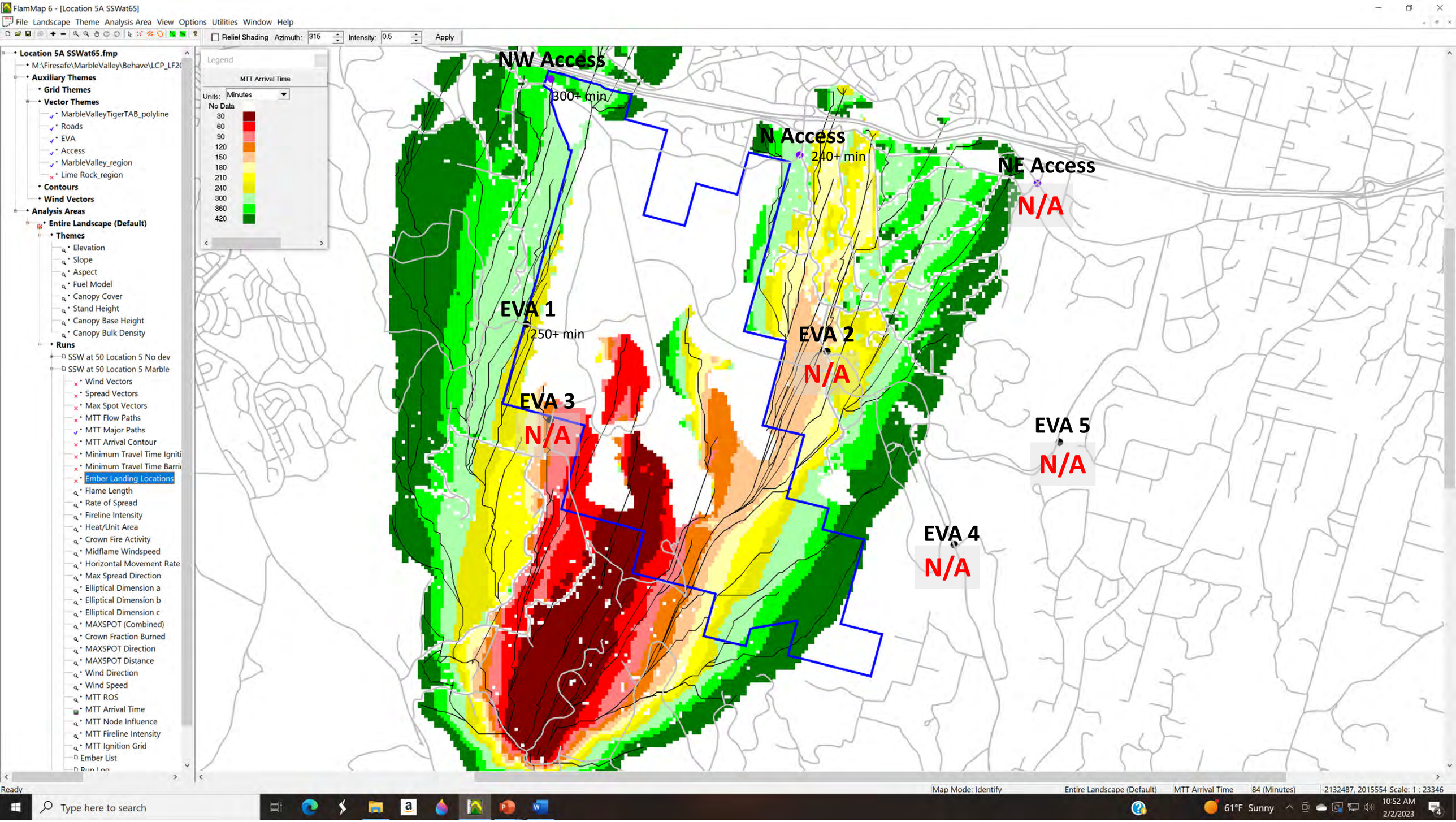
Location 5 SW wind at 65 mph Both – Scn 5D



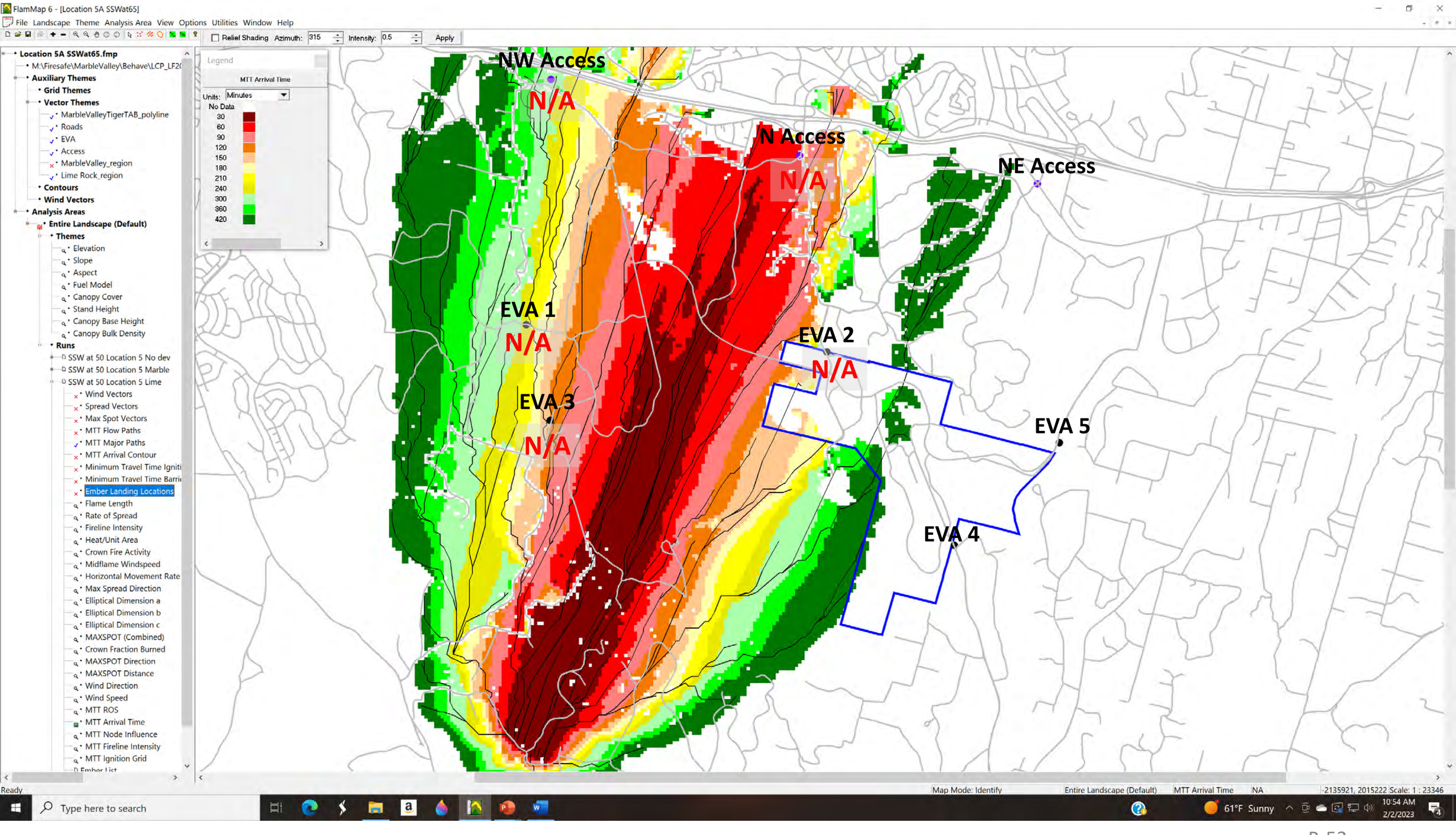
Location 5 SSW wind at 50 mph No Dev – Scn 5E



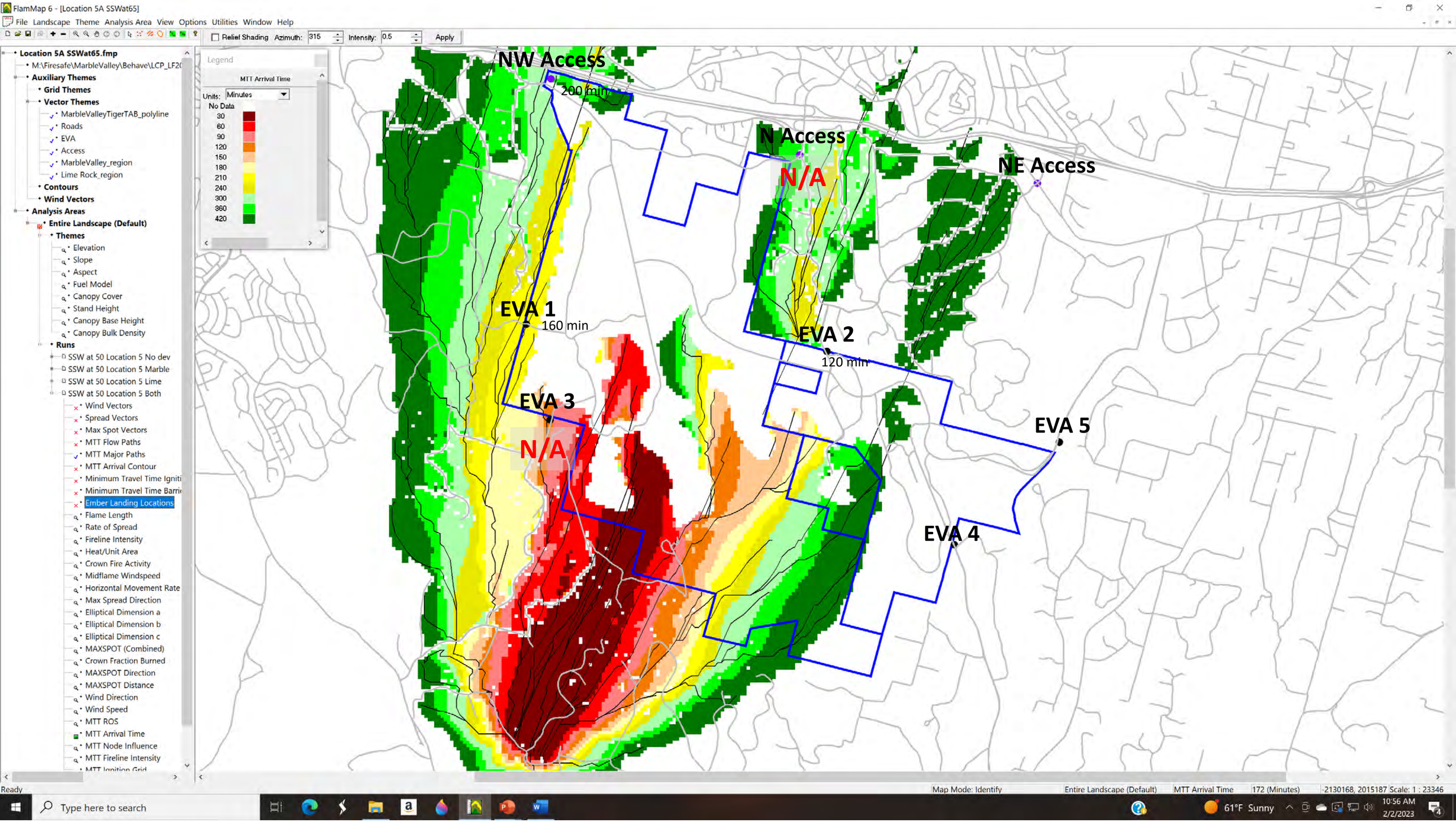
Location 5 SSW wind at 50 mph Marble – Scn 5F



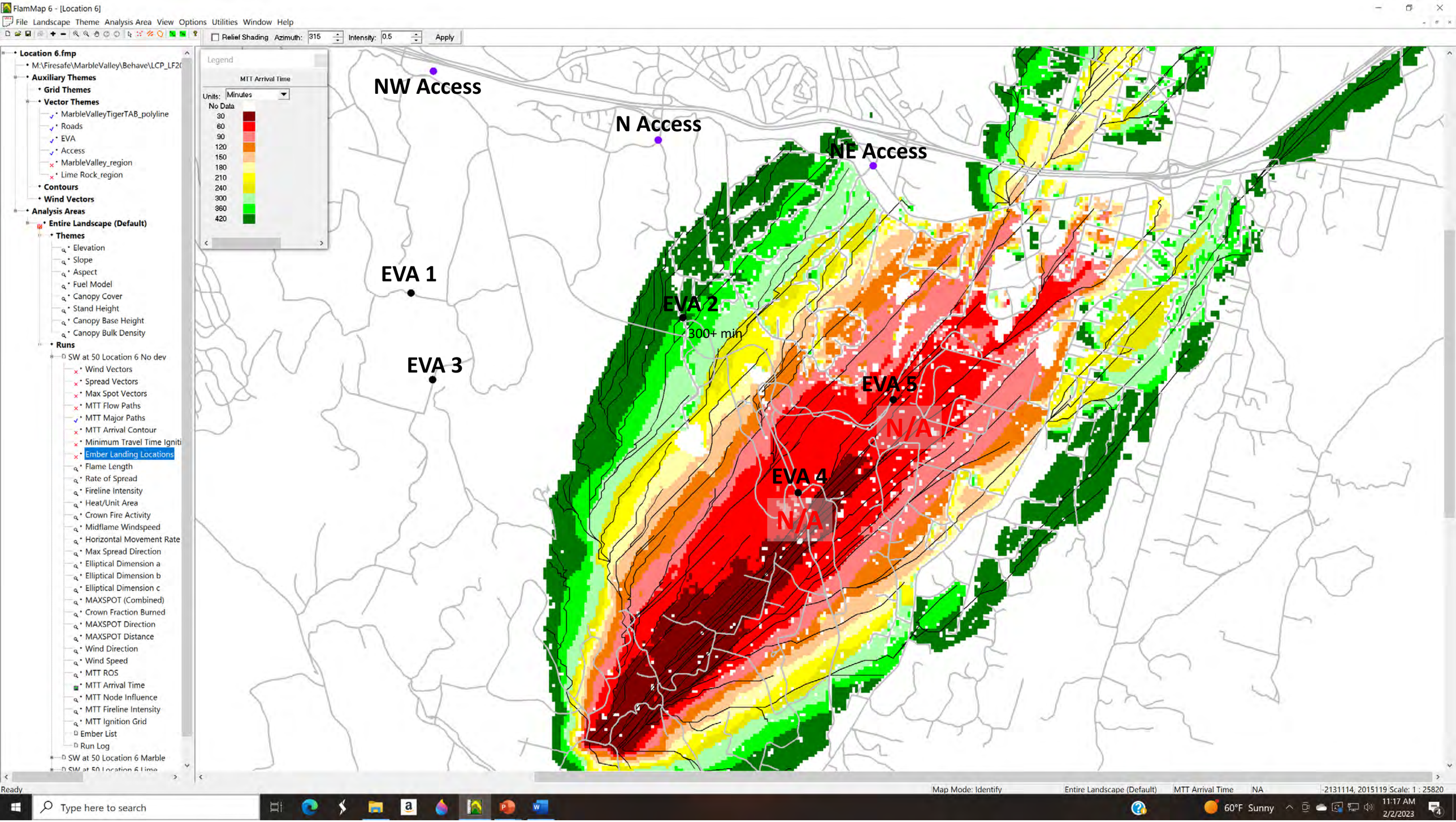
Location 5 SSW wind at 50 mph Lime – Scn 5G



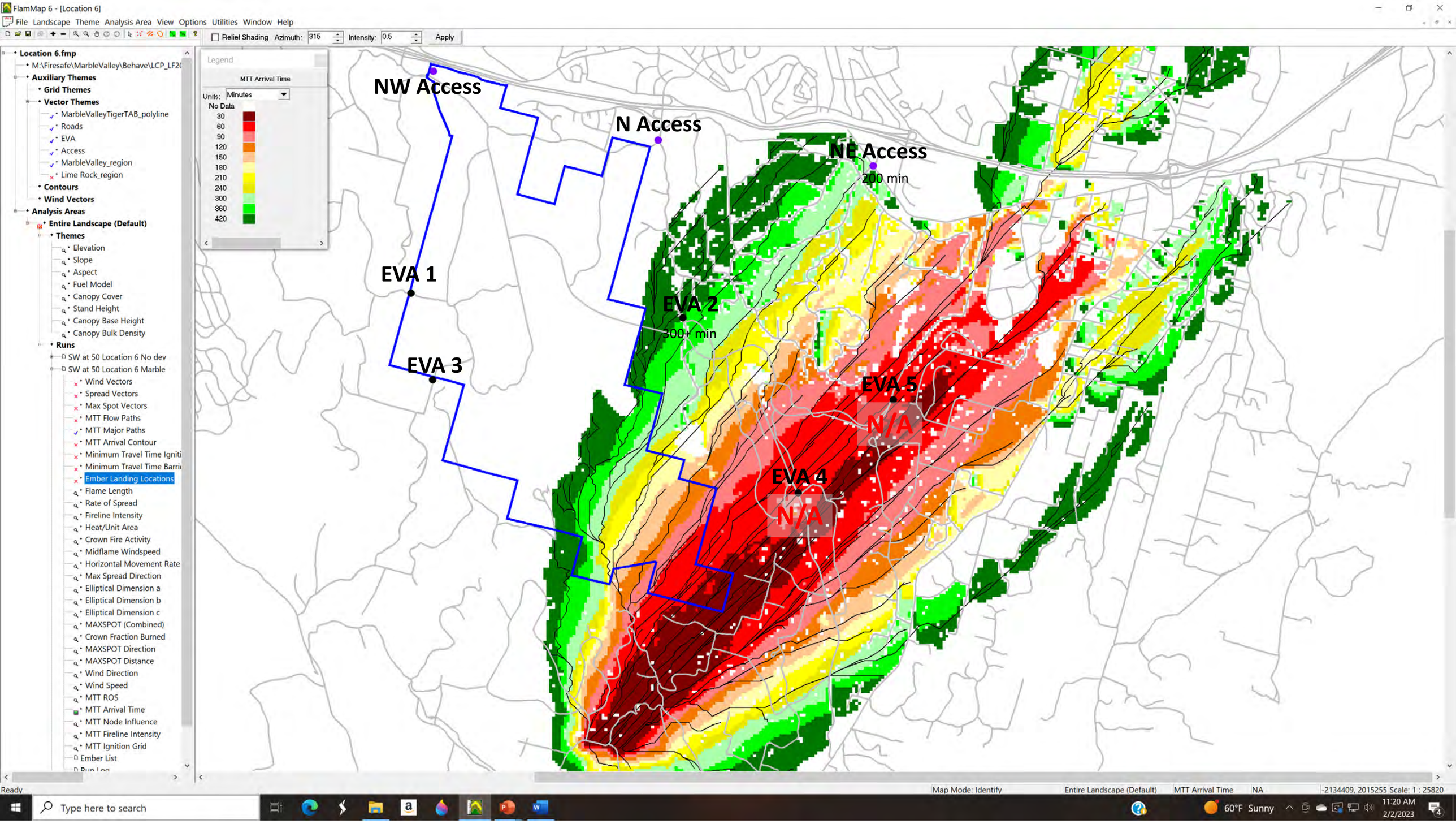
Location 5 SSW wind at 50 mph Both – Scn 5H



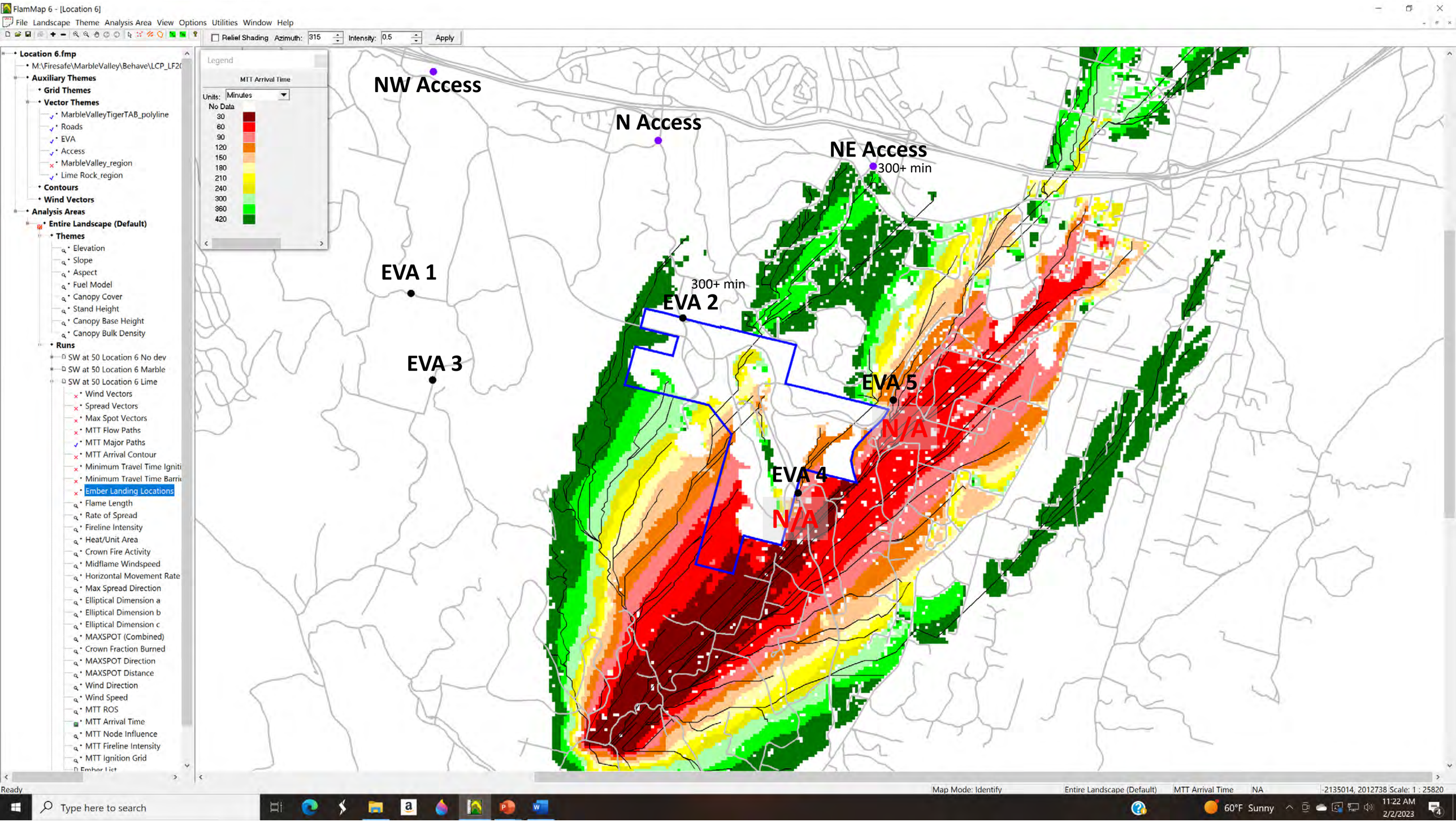
Location 6 SW wind at 50 mph No Dev – Scn 6A



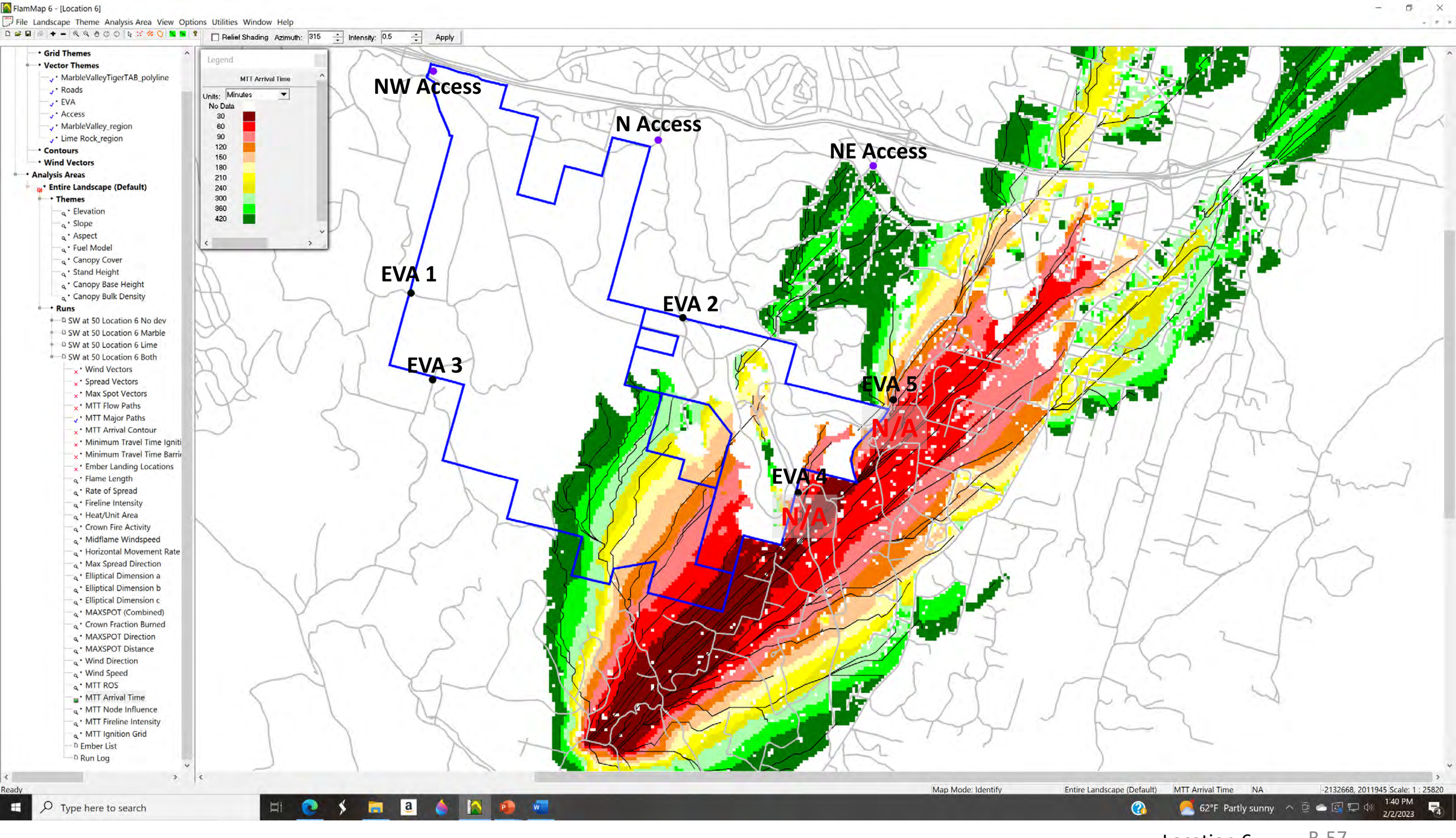
Location 6 SW wind at 50 mph Marble – Scn 6B



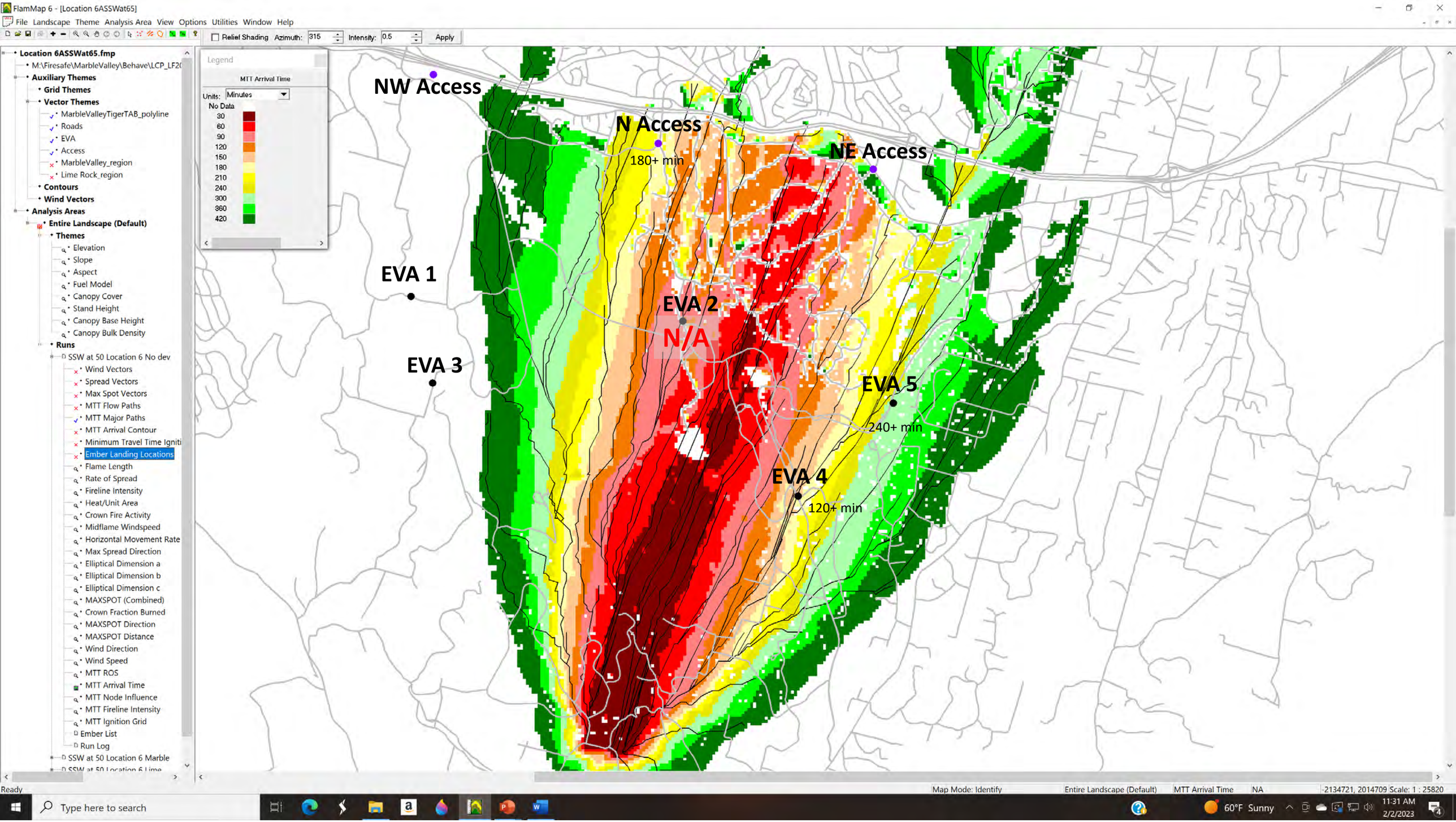
Location 6 SW wind at 50 mph Lime – Scn 6C



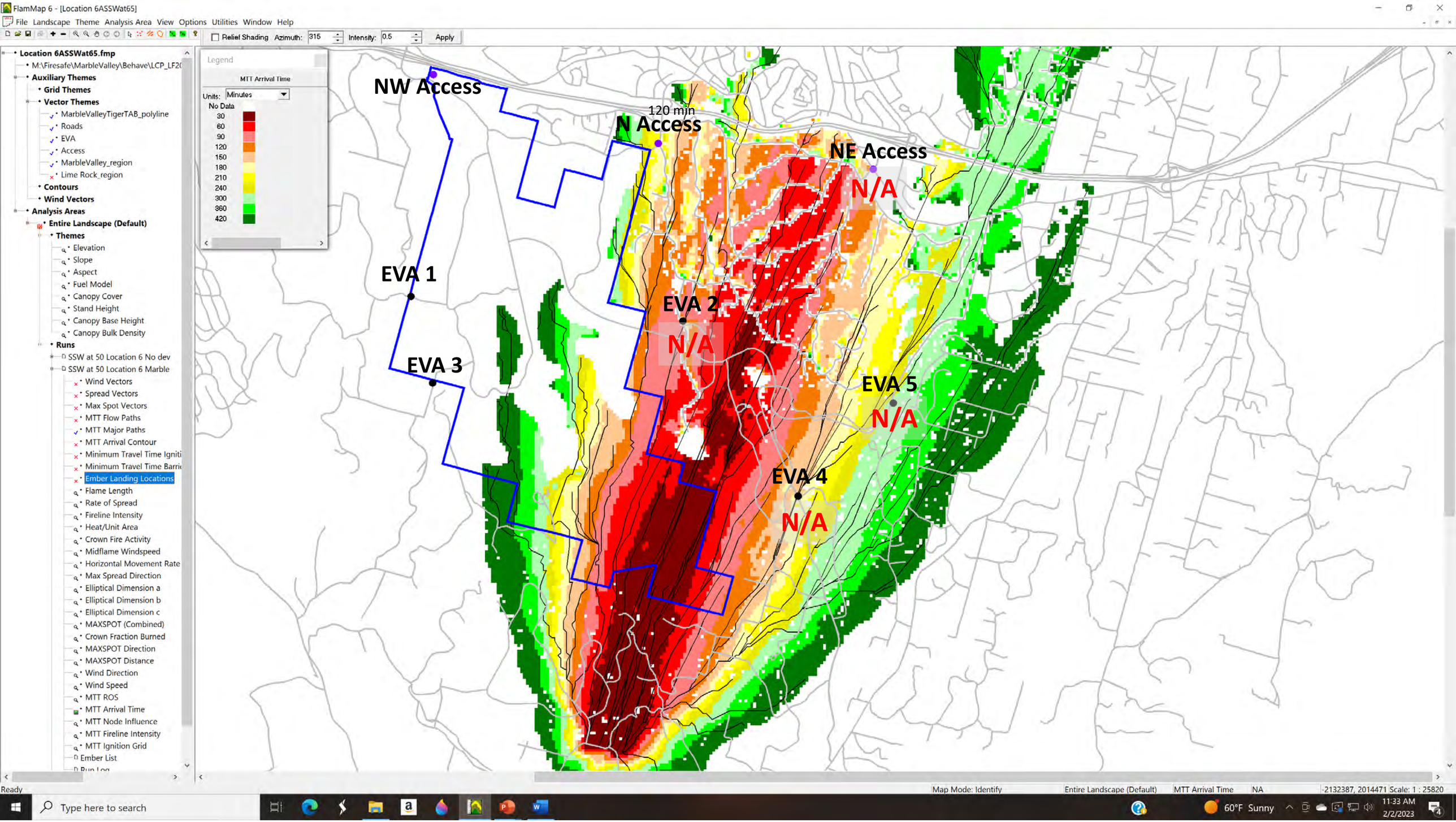
Location 6 SW wind at 50 mph Both – Scn 6D



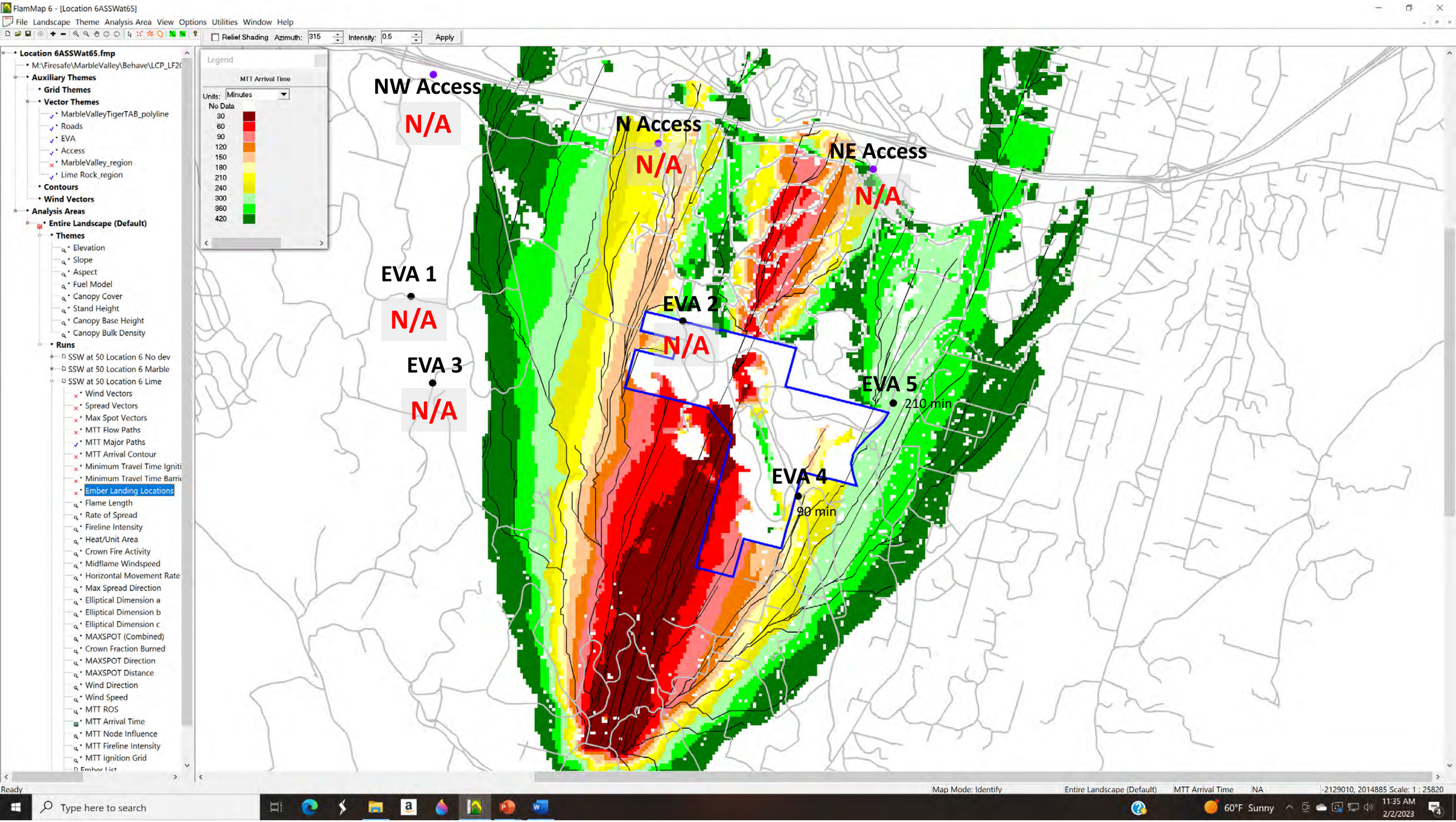
Location 6 SSW wind at 50 mph No Dev – Scn 6E



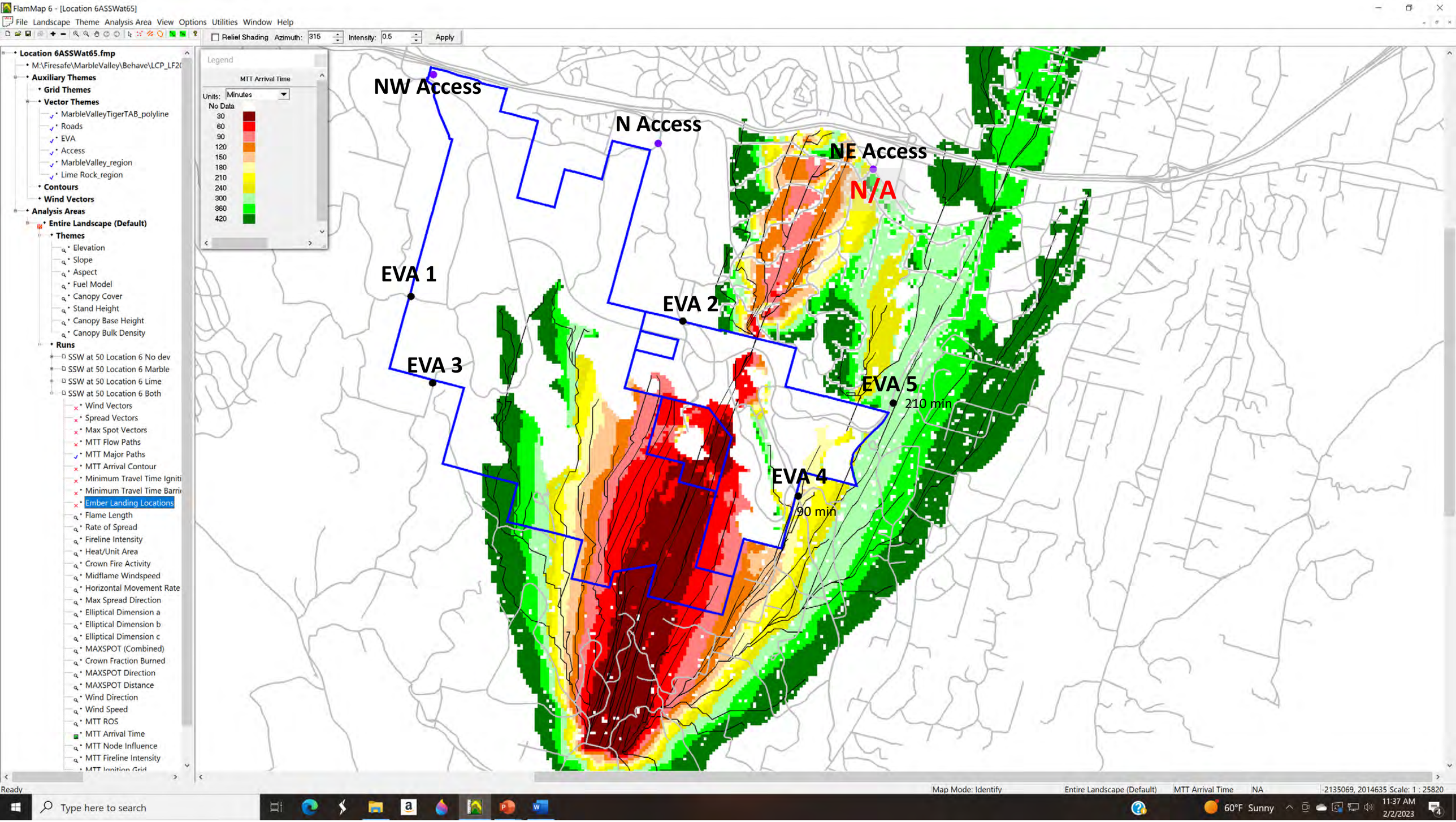
Location 6 SSW wind at 50 mph Marble – Scn 6F



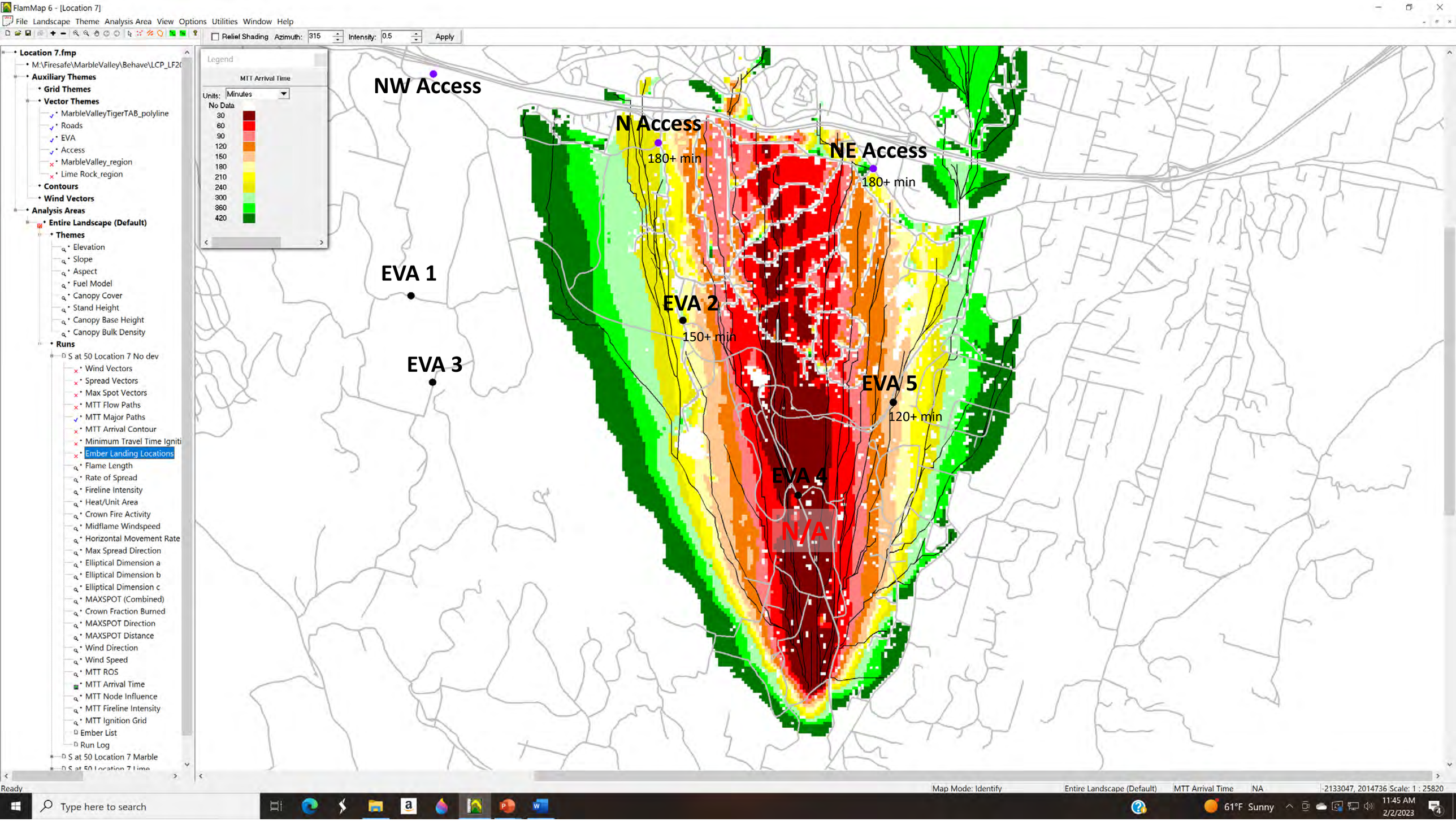
Location 6 SSW wind at 50 mph Lime – Scn 6G



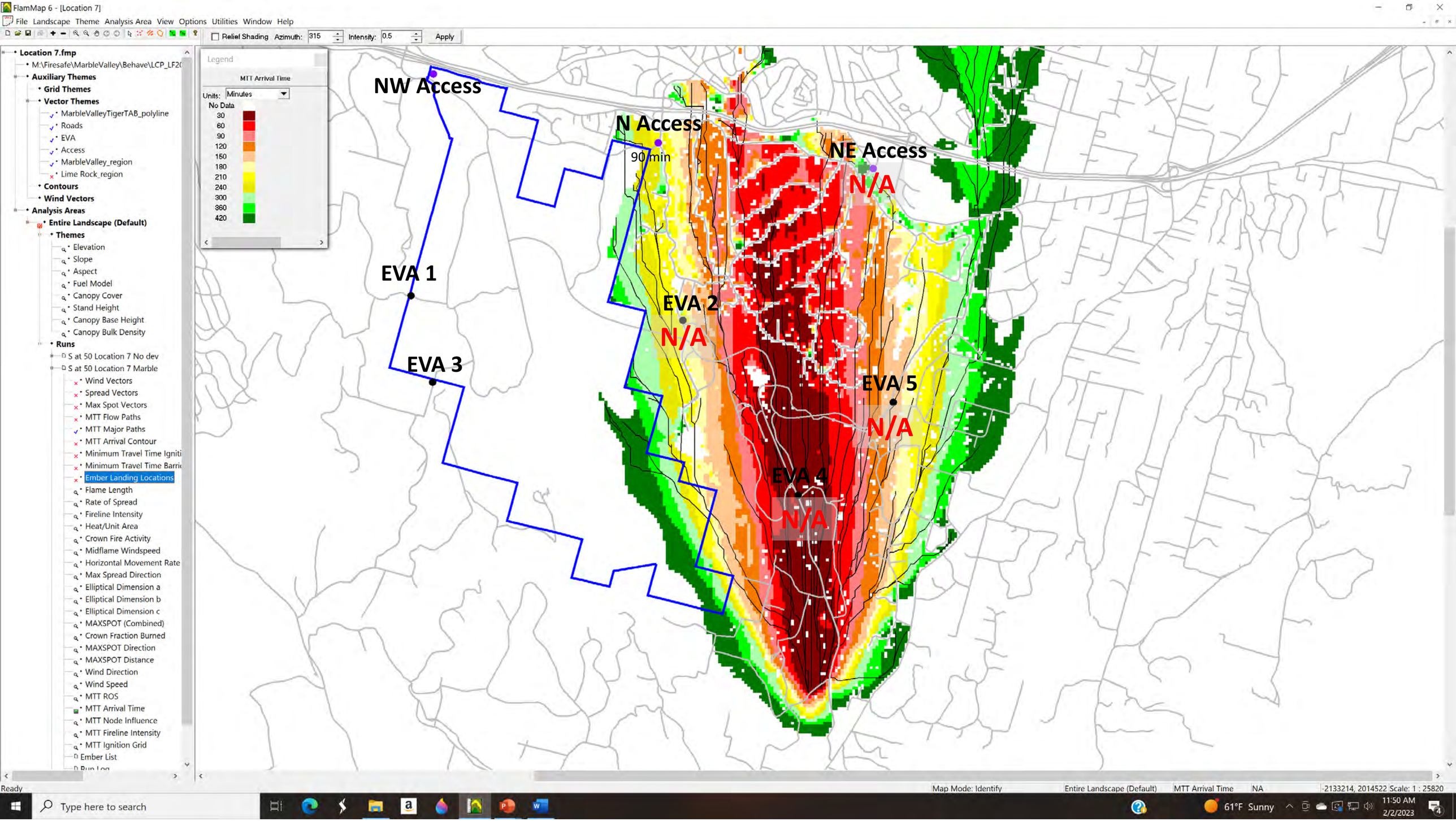
Location 6 SSW wind at 65 mph Both – Scn 6H



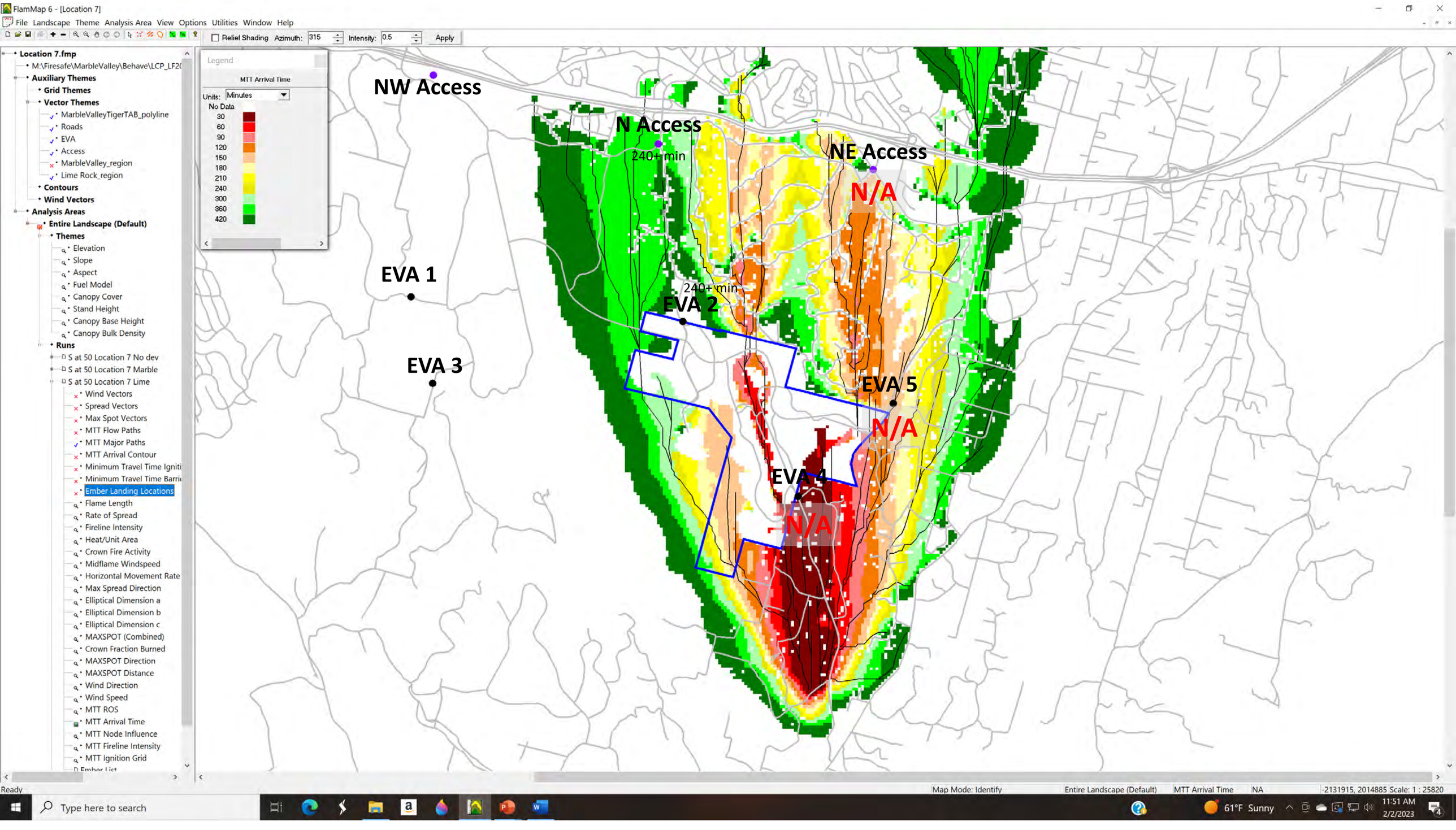
Location 7 S wind at 50 mph No Dev – Scn 7A



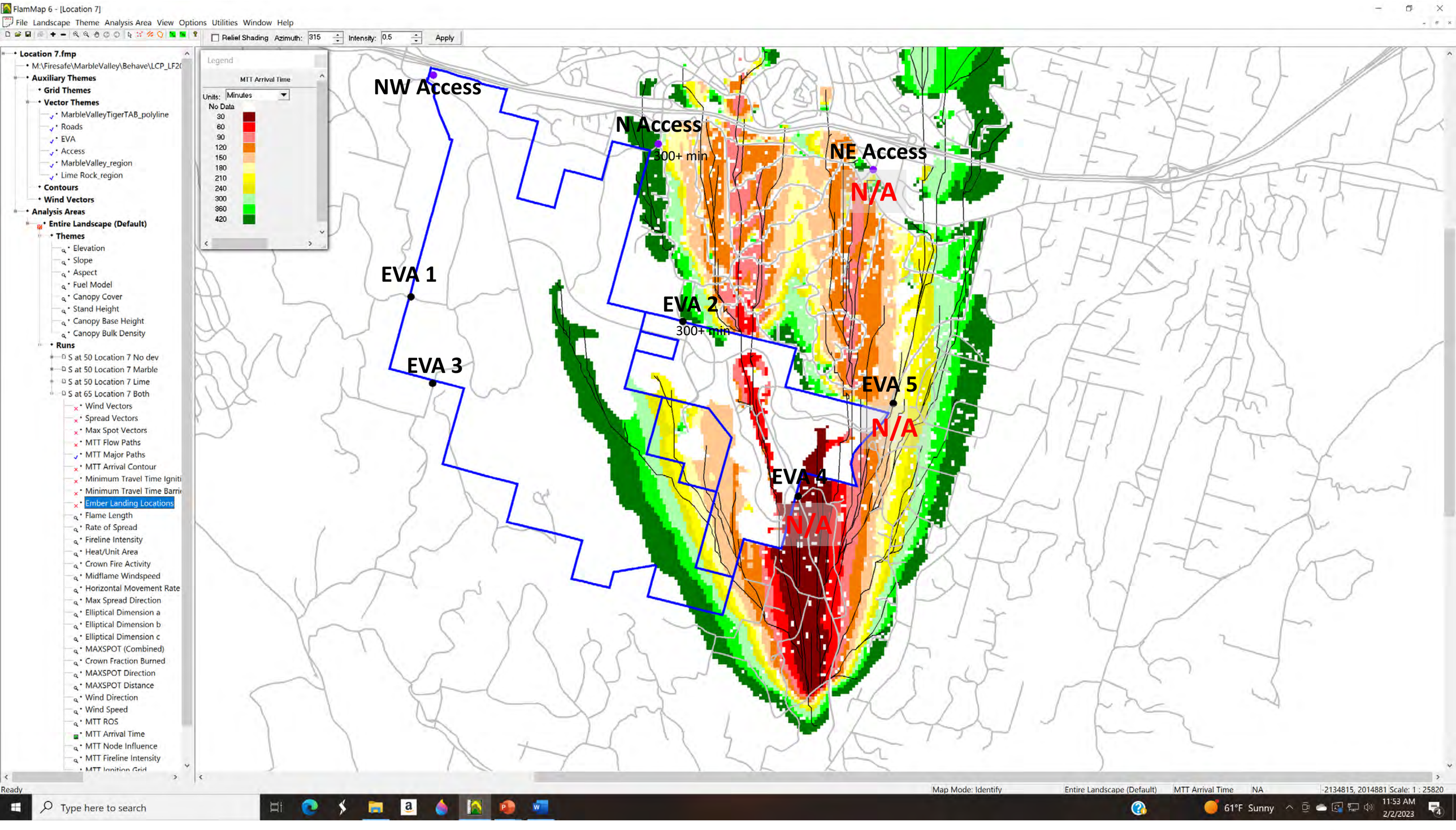
Location 7 S wind at 50 mph Marble – Scn 7B



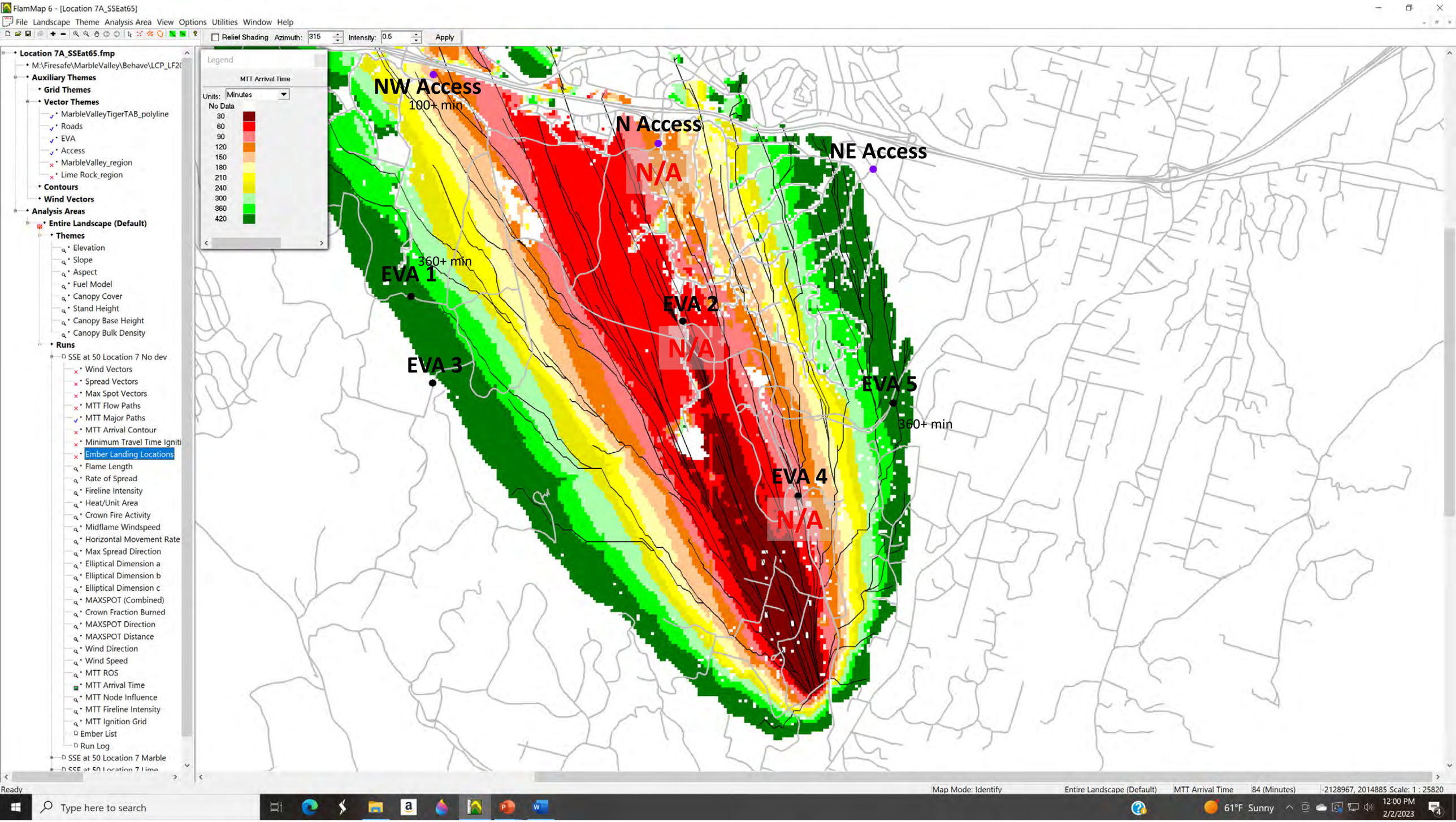
Location 7 S wind at 50 mph Lime – Scn 7C



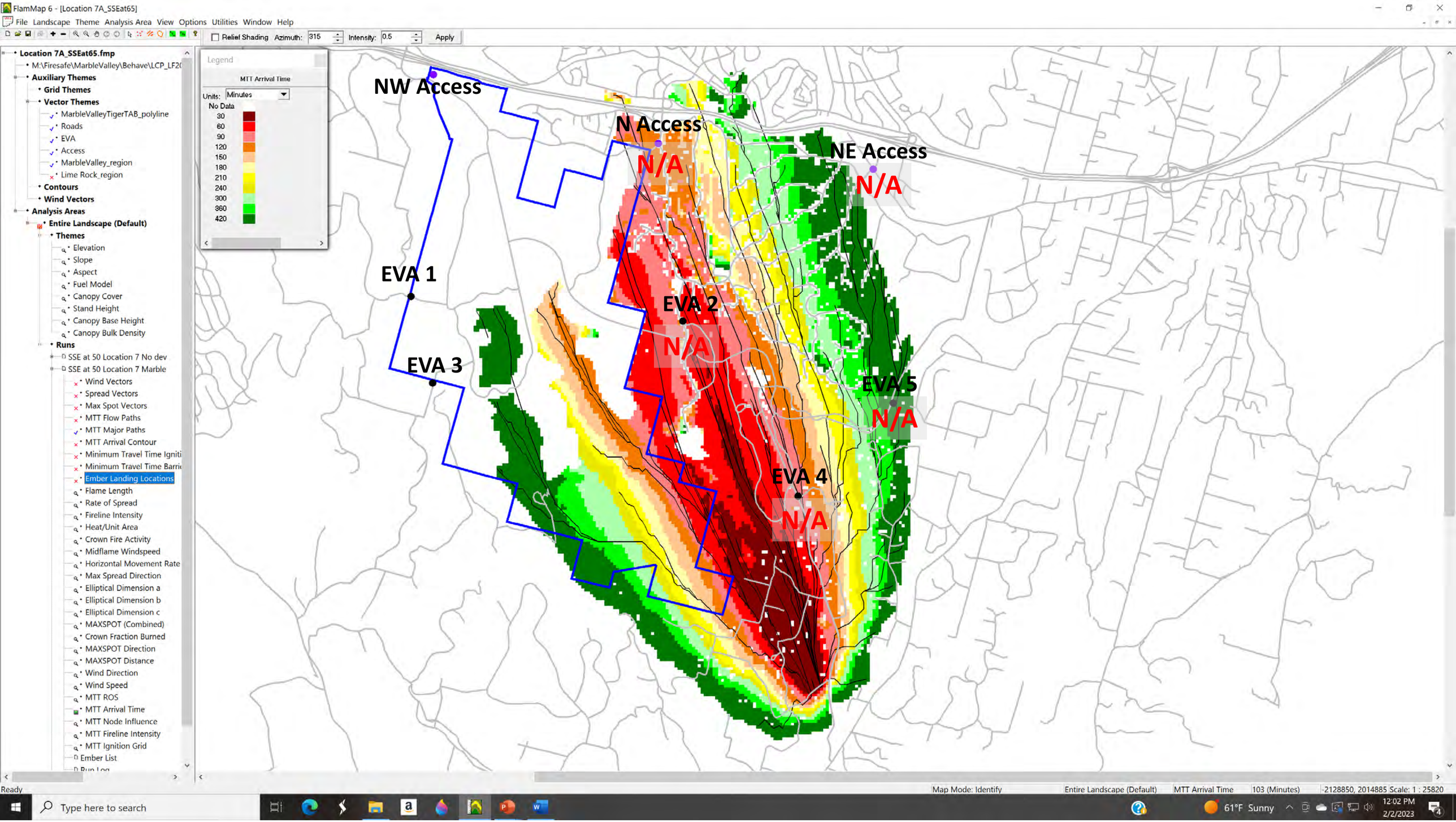
Location 7 S wind at 50 mph Both – Scn 7D



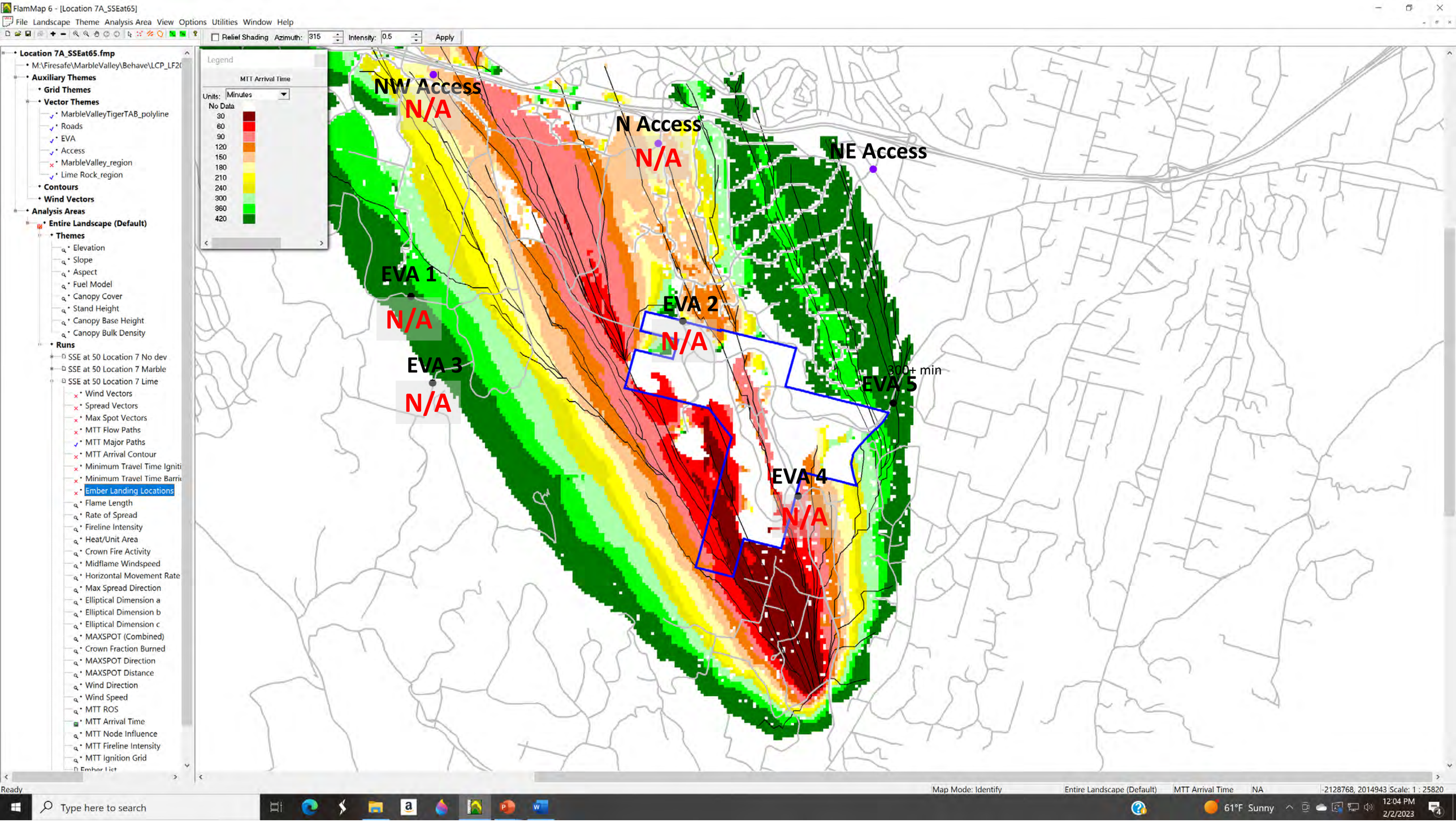
ELocation 7 SSE wind at 50 mph No Dev – Scn 7E



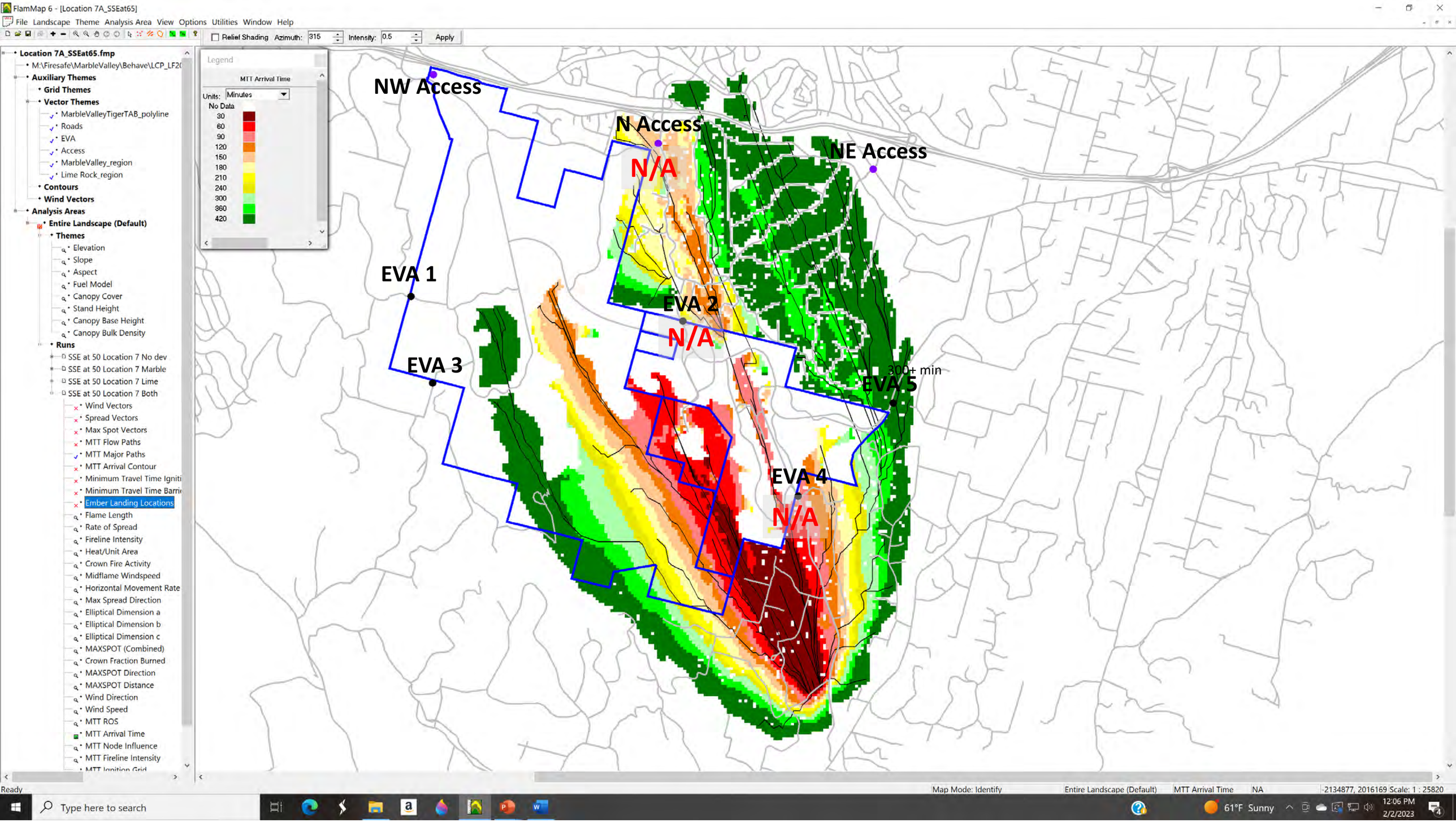
Location 7 SSE wind at 50 mph Marble – Scn 7F



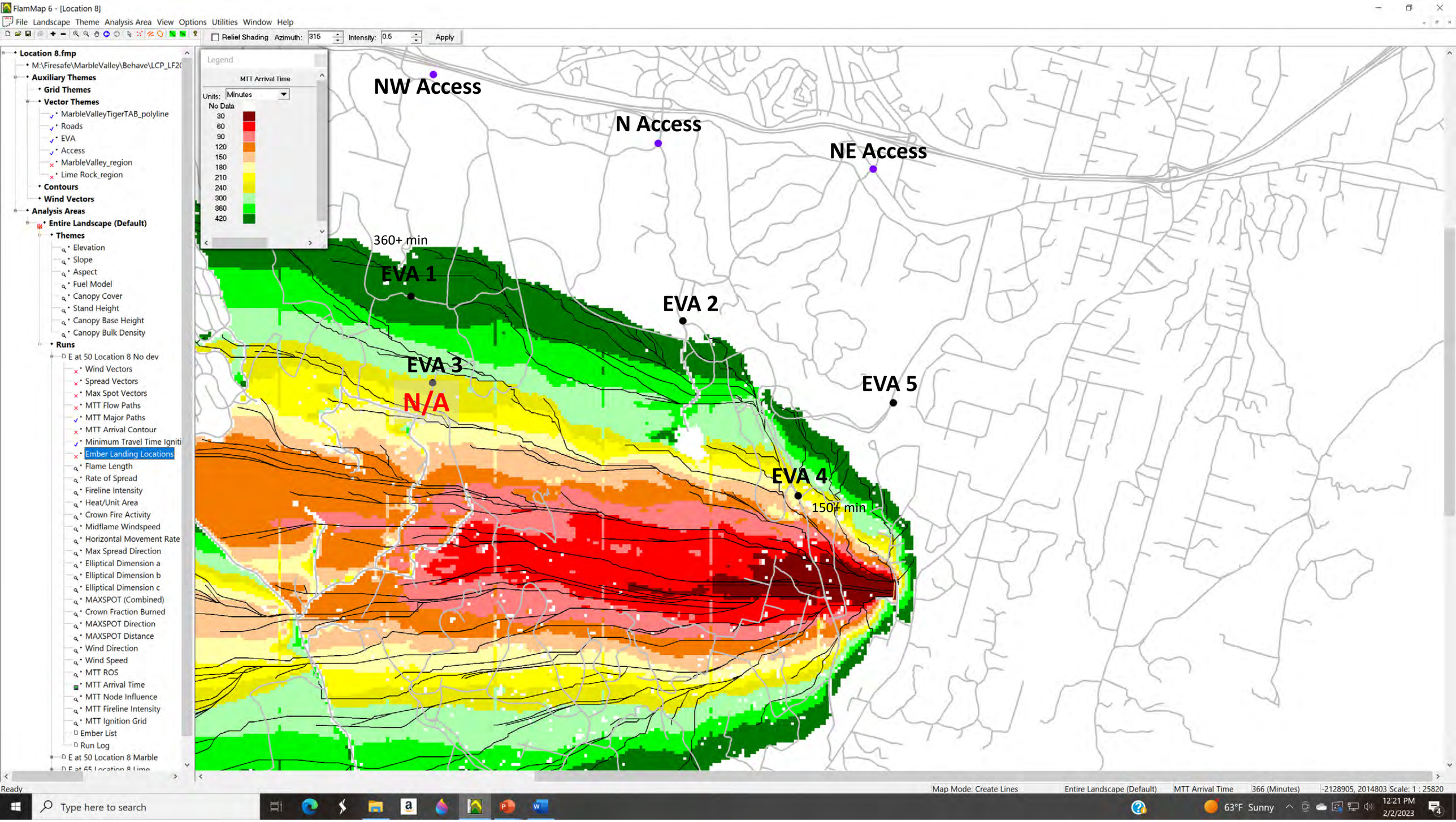
Location 7 SSE wind at 50 mph Lime – Scn 7G



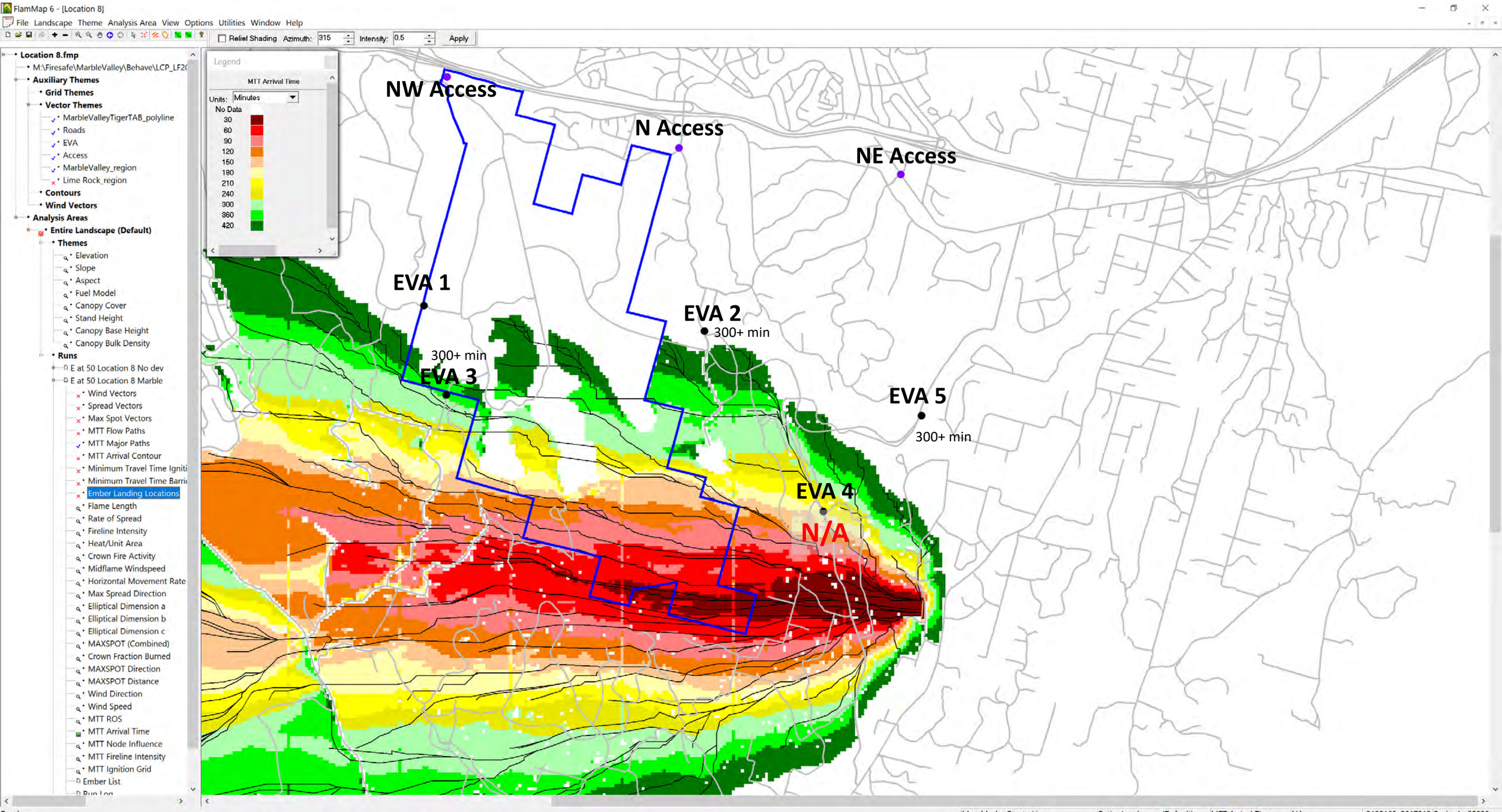
Location 7 SSE wind at 50 mph Both – Scn 7H



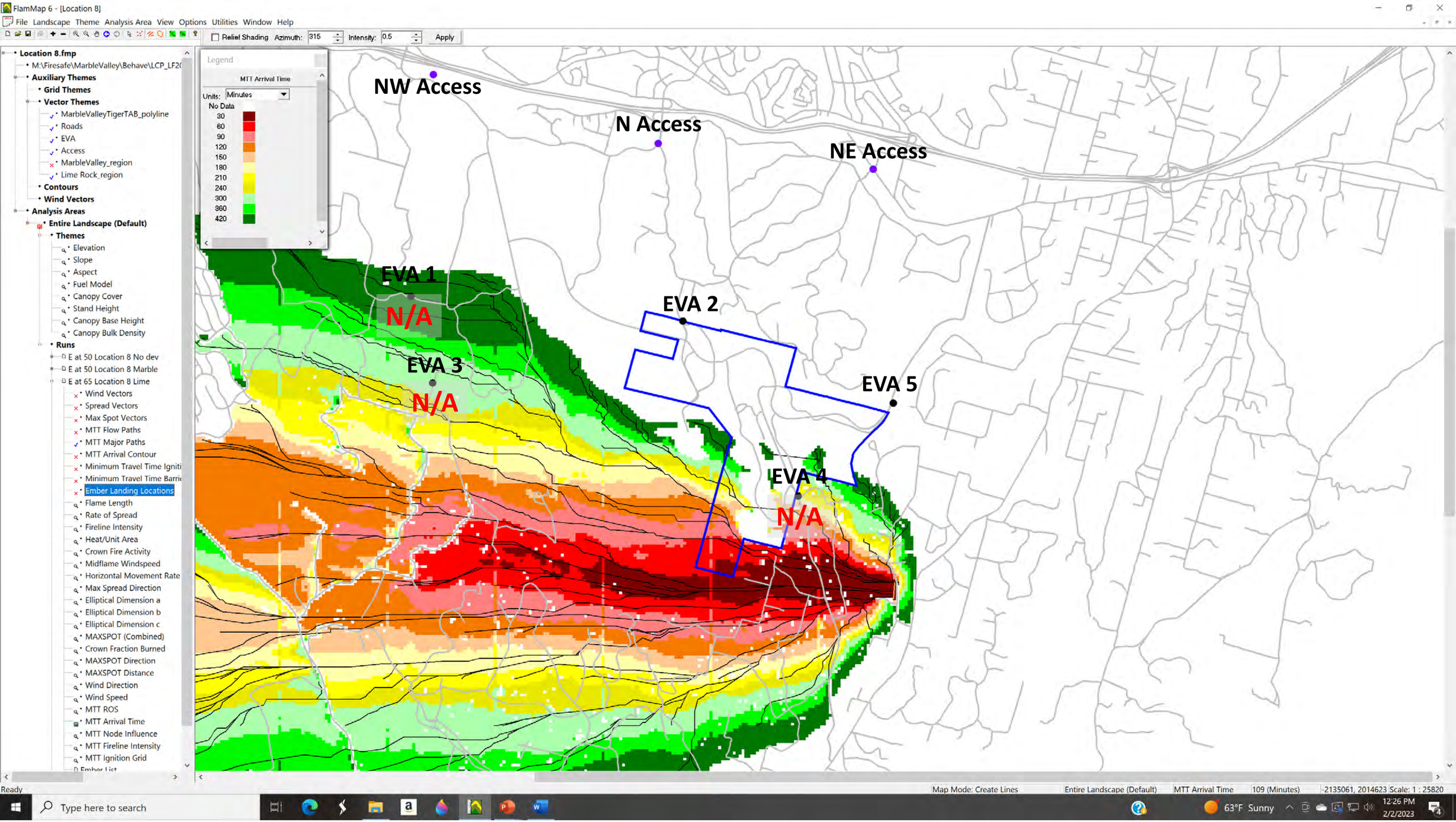
Location 8 E wind at 50 mph No Dev – Scn 8A



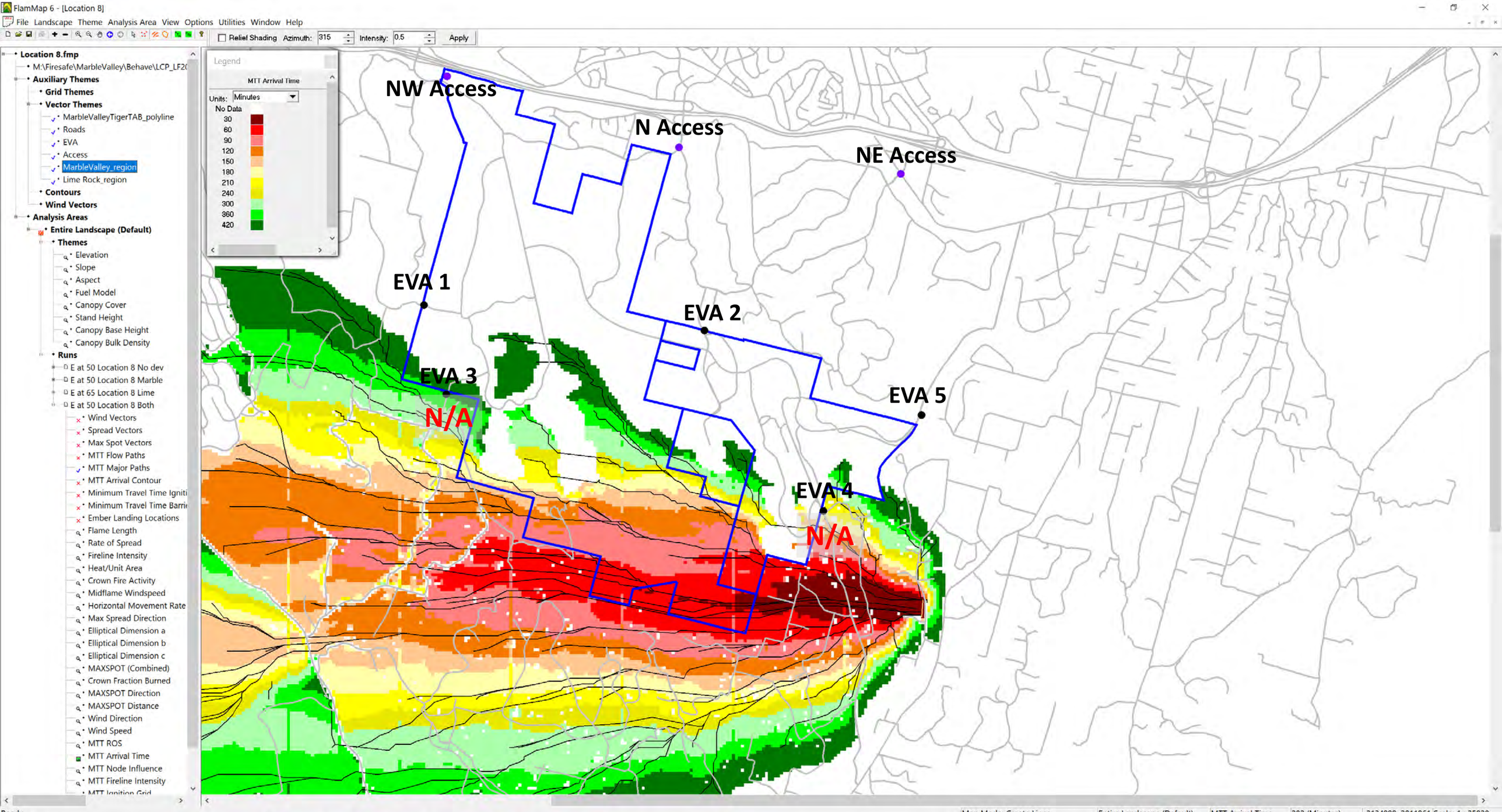
Location 8 E wind at 50 mph Marble – Scn 8B



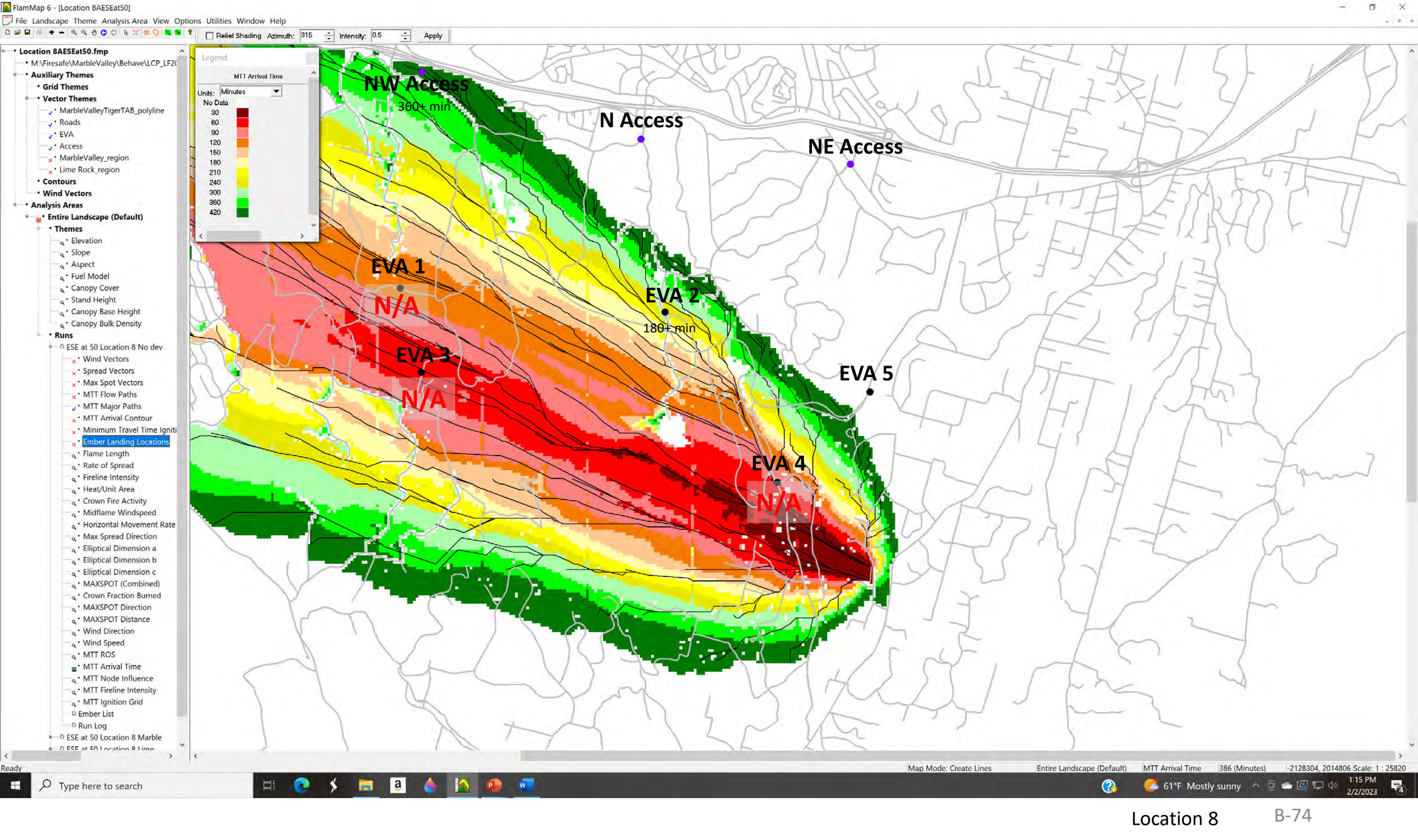
Location 8 E wind at 50 mph Lime – Scn 8C



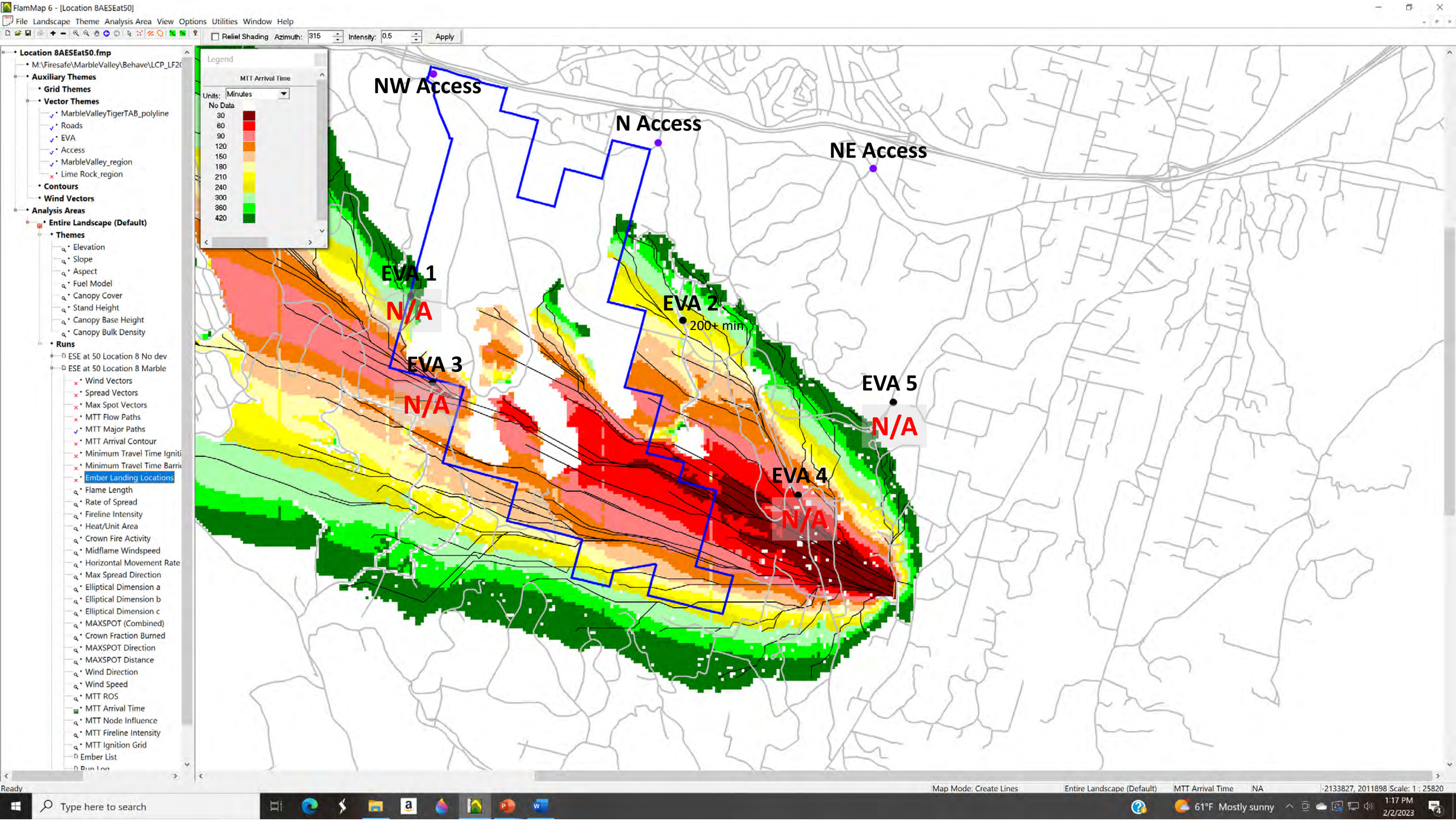
Location 8 E wind at 50 mph Both – Scn 8D



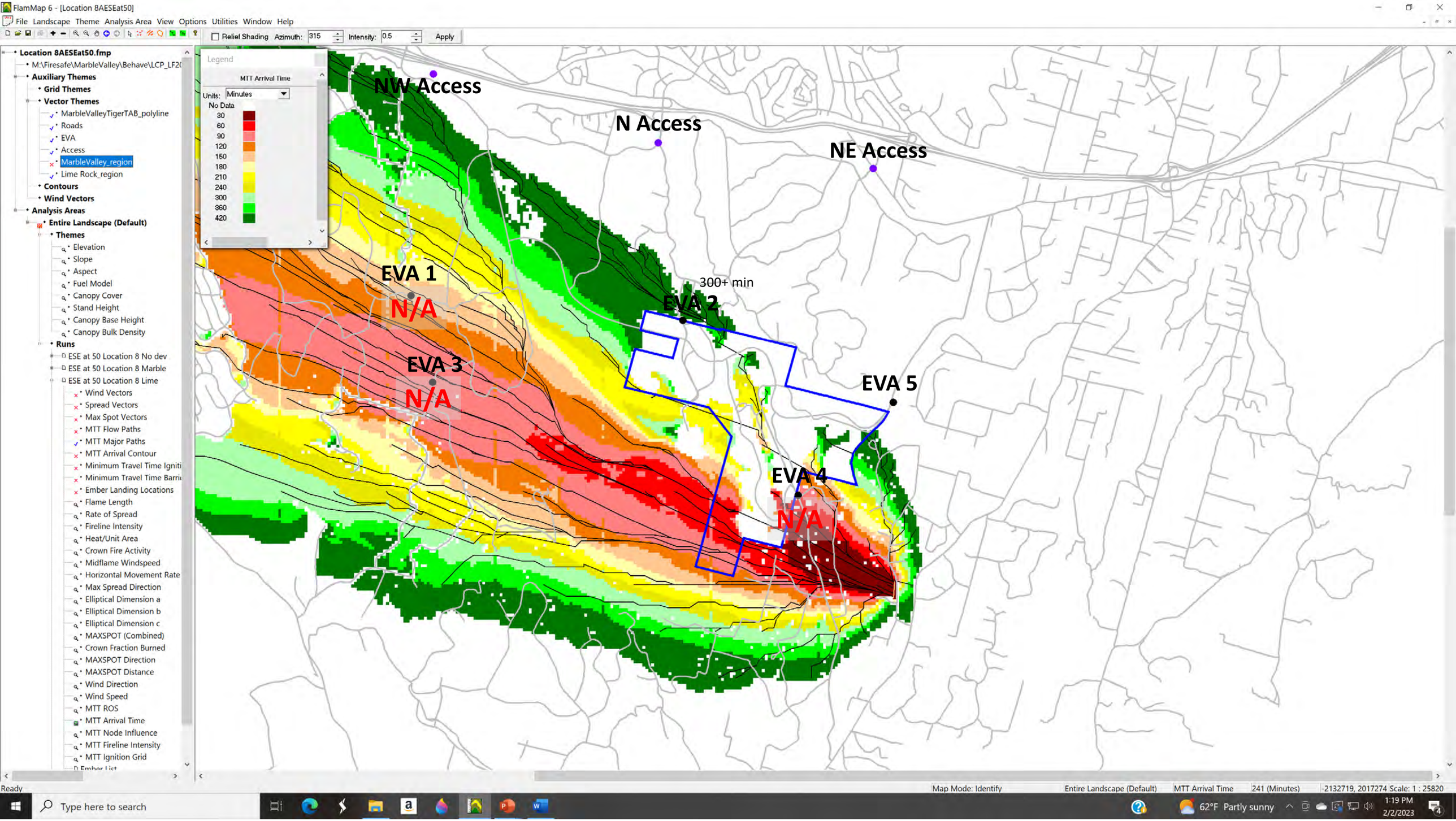
Location 8 ESE wind at 50 mph No Dev – Scn 8E



Location 8 ESE wind at 50 mph Marble – Scn 8F

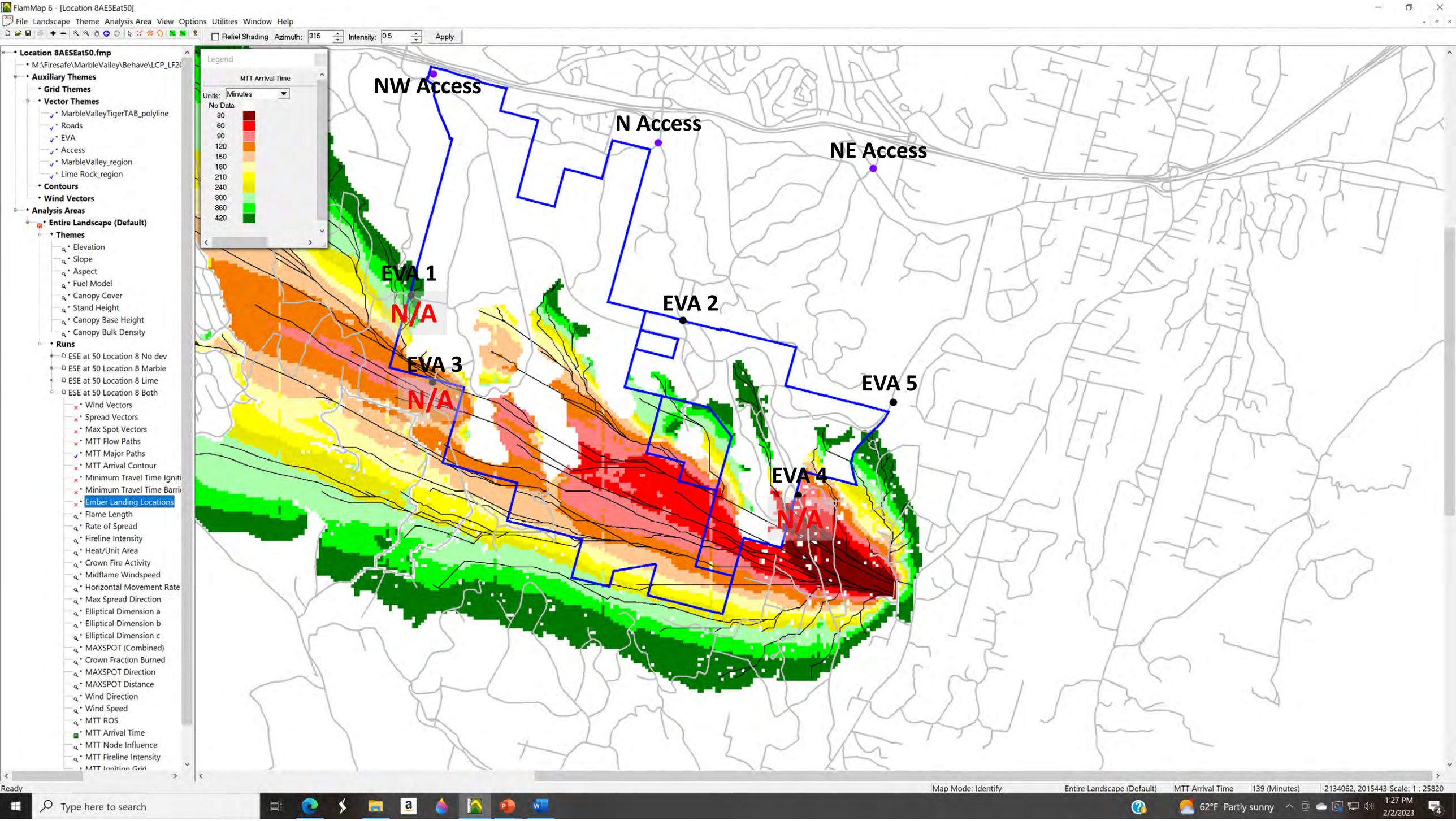


Location 8 ESE wind at 50 mph Lime – Scn 8G

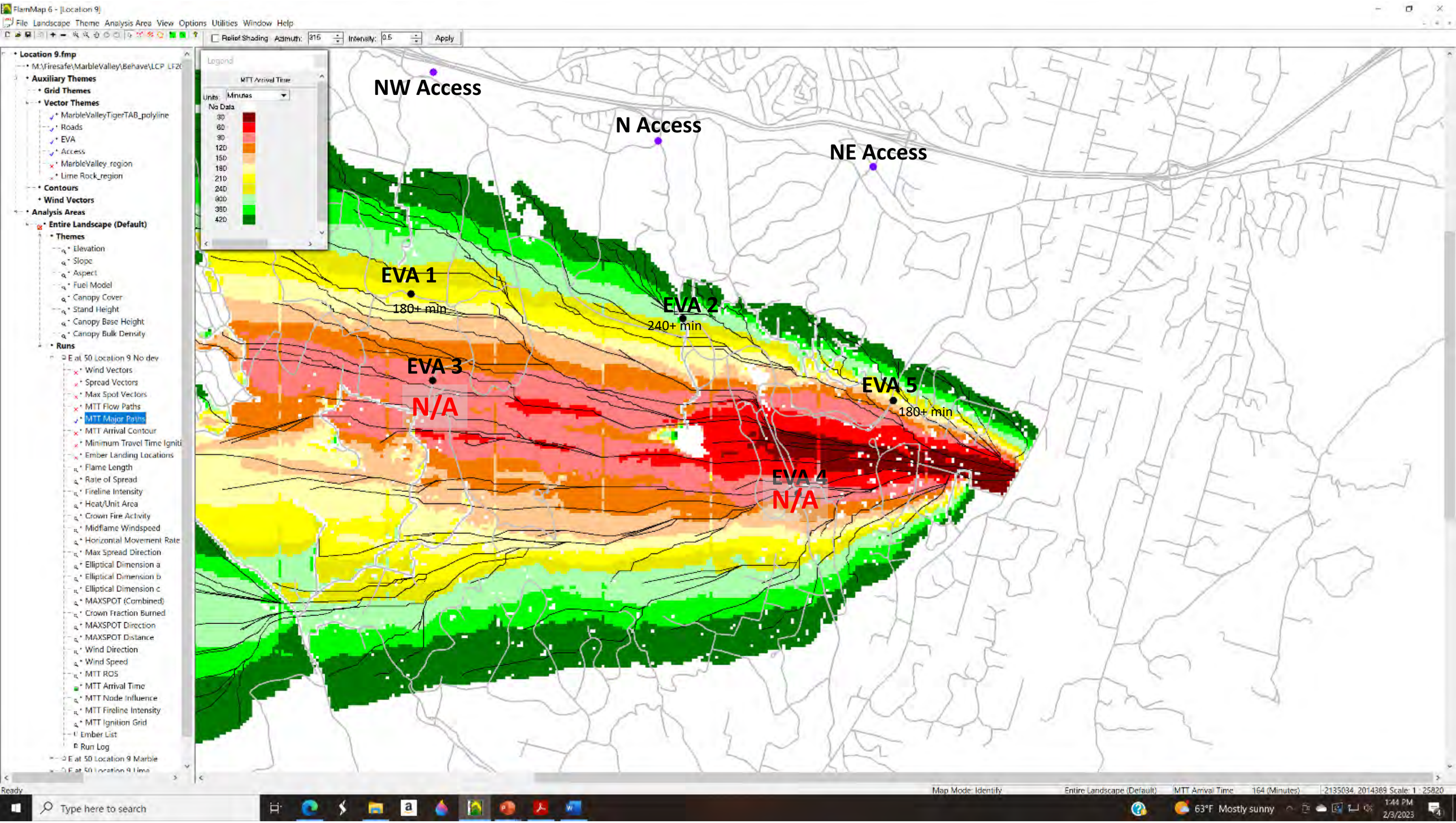


Location 8 ESE wind at 50 mph Both – Scn 8H

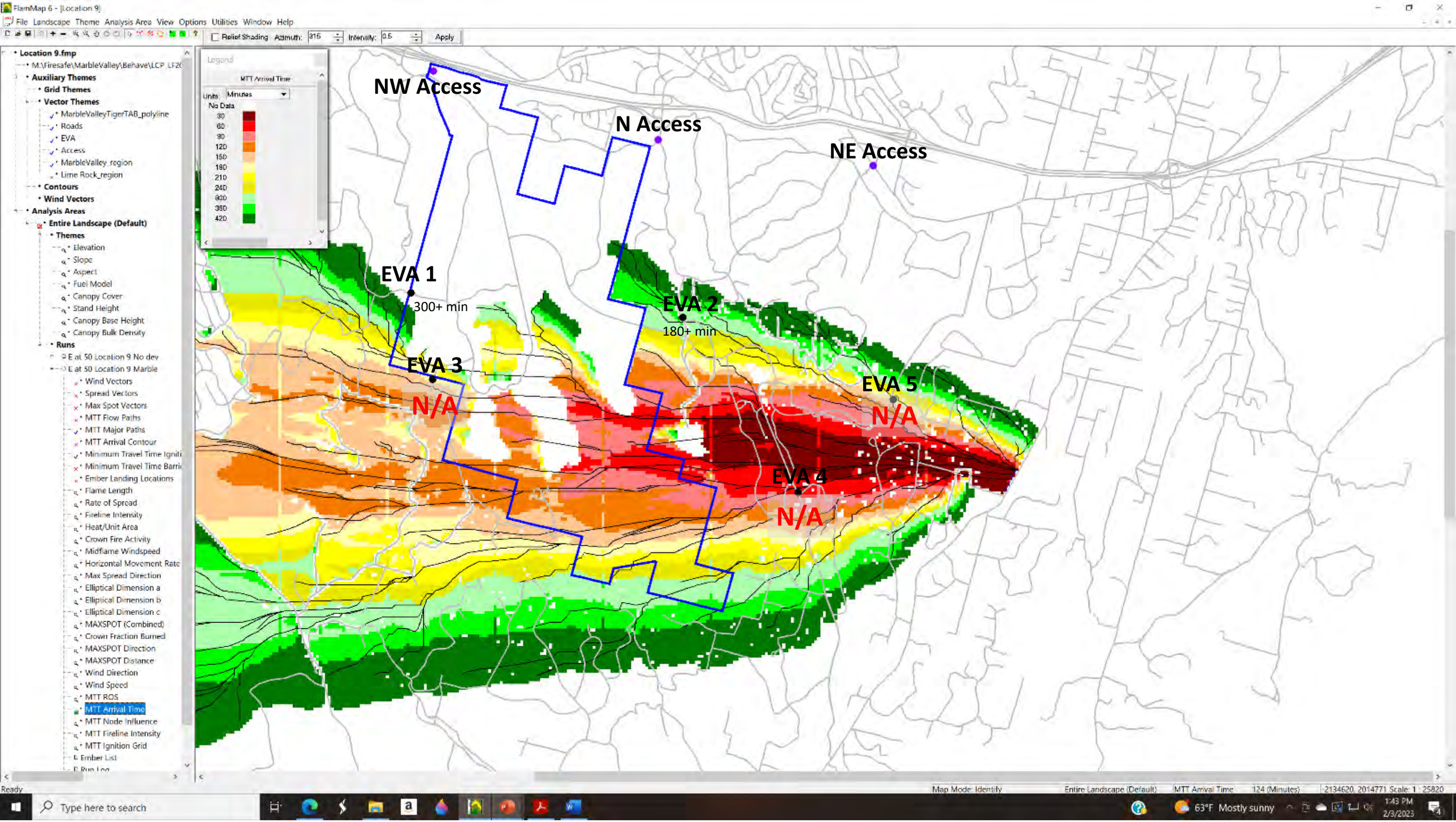
120 min 90 min



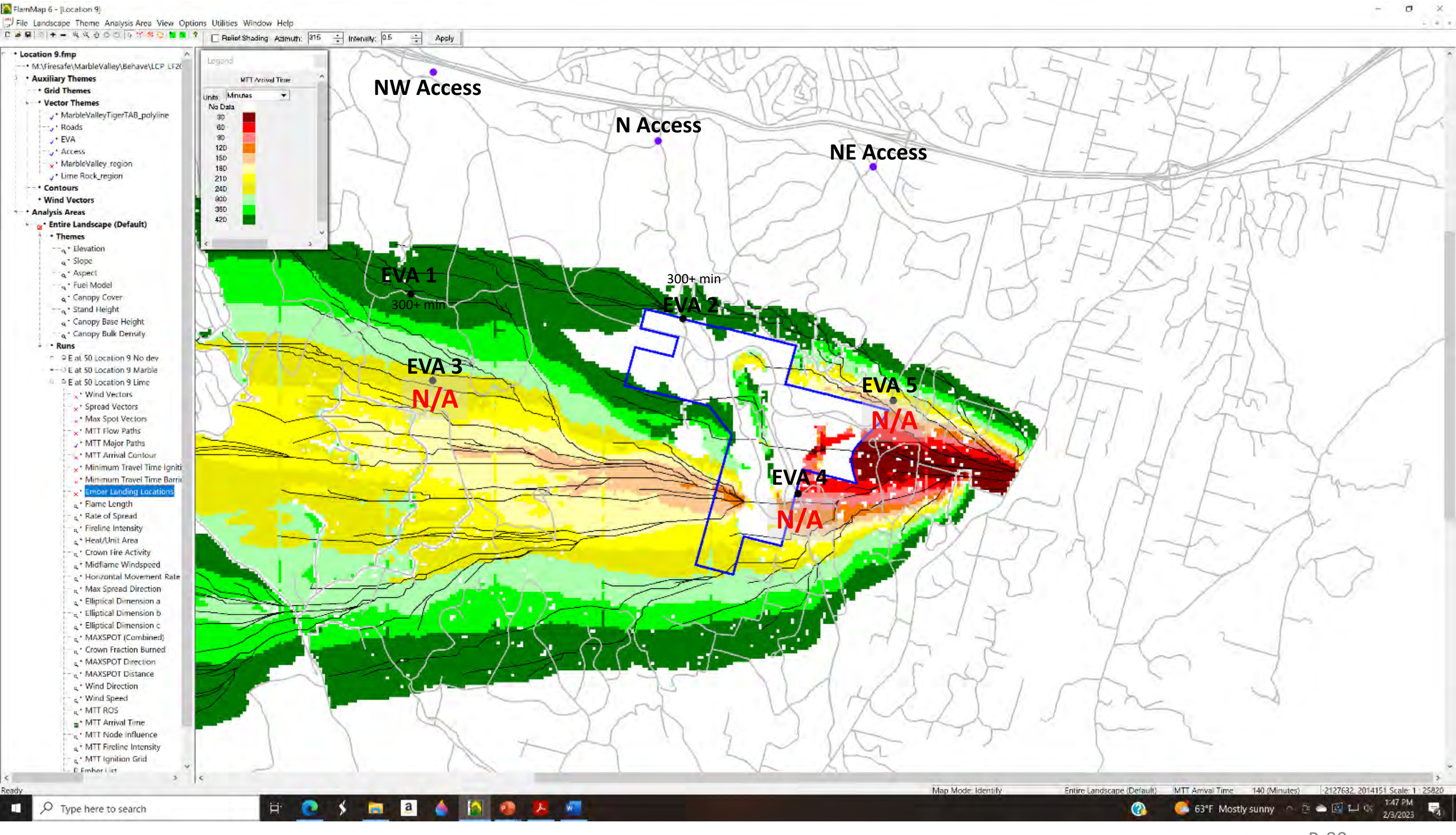
Location 9 E wind at 50 mph No Dev – Scn 9A



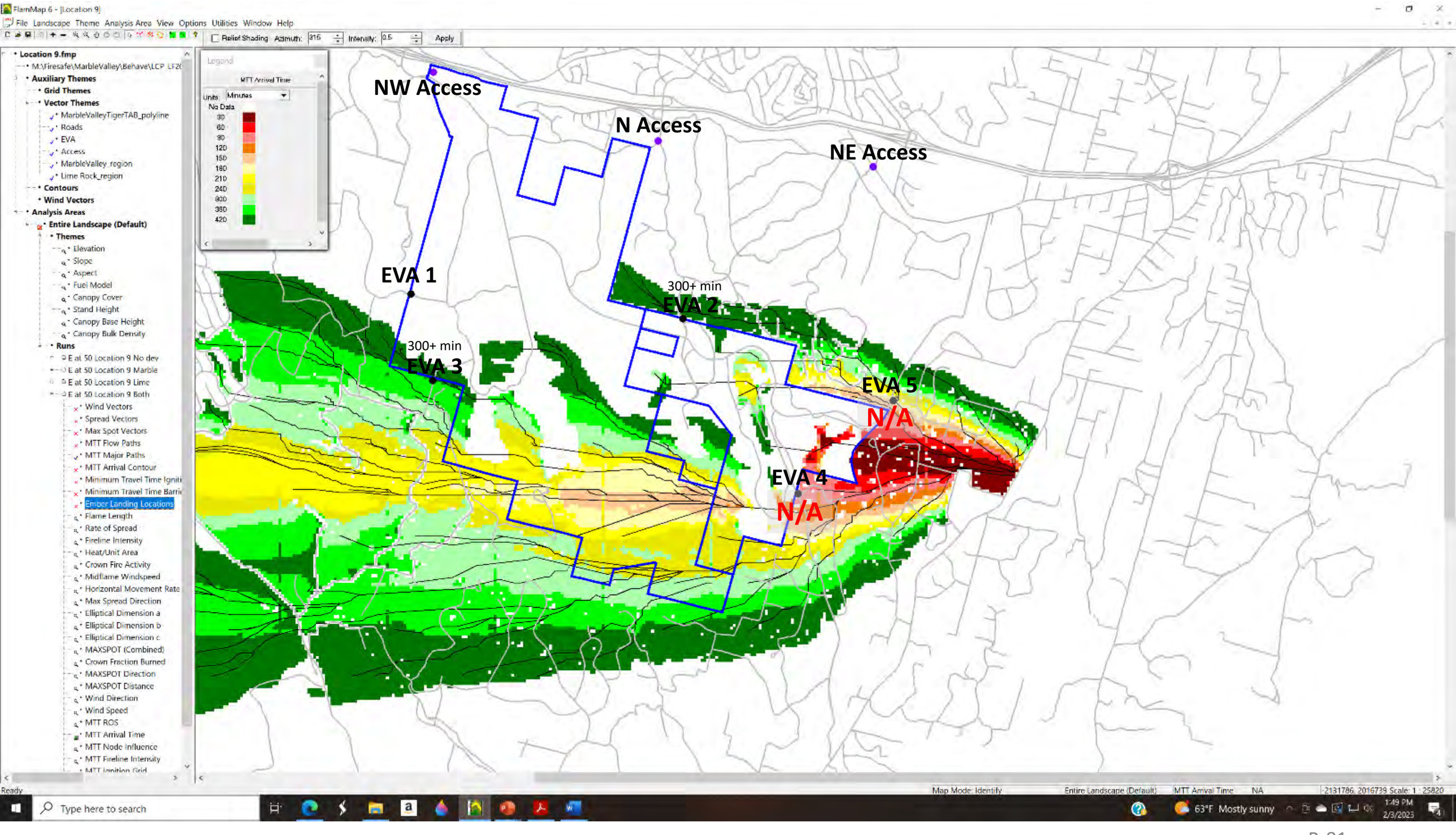
Location 9 E wind at 50 mph Marble – Scn 9B



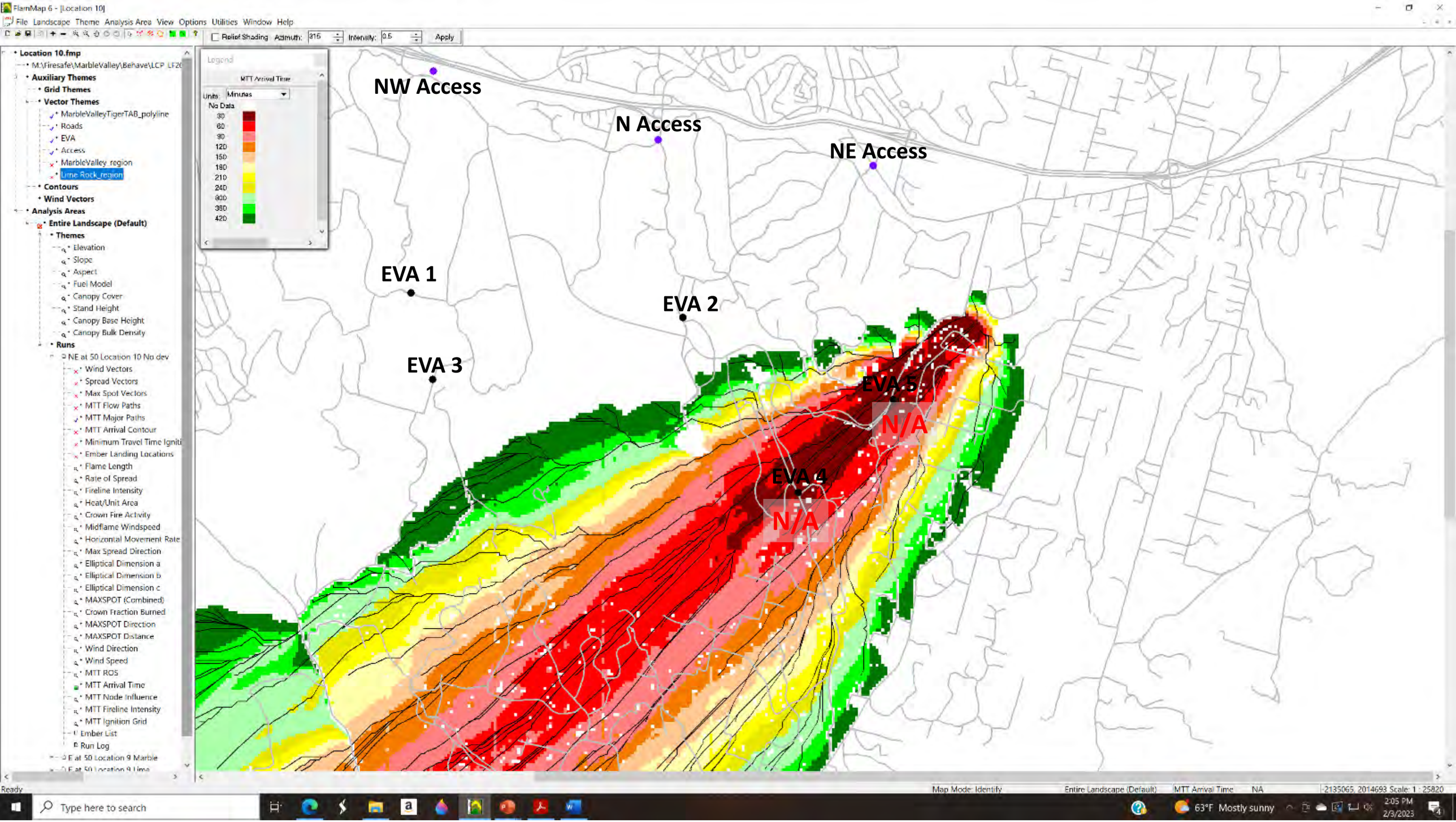
Location 9 E wind at 50 mph Lime – Scn 9C



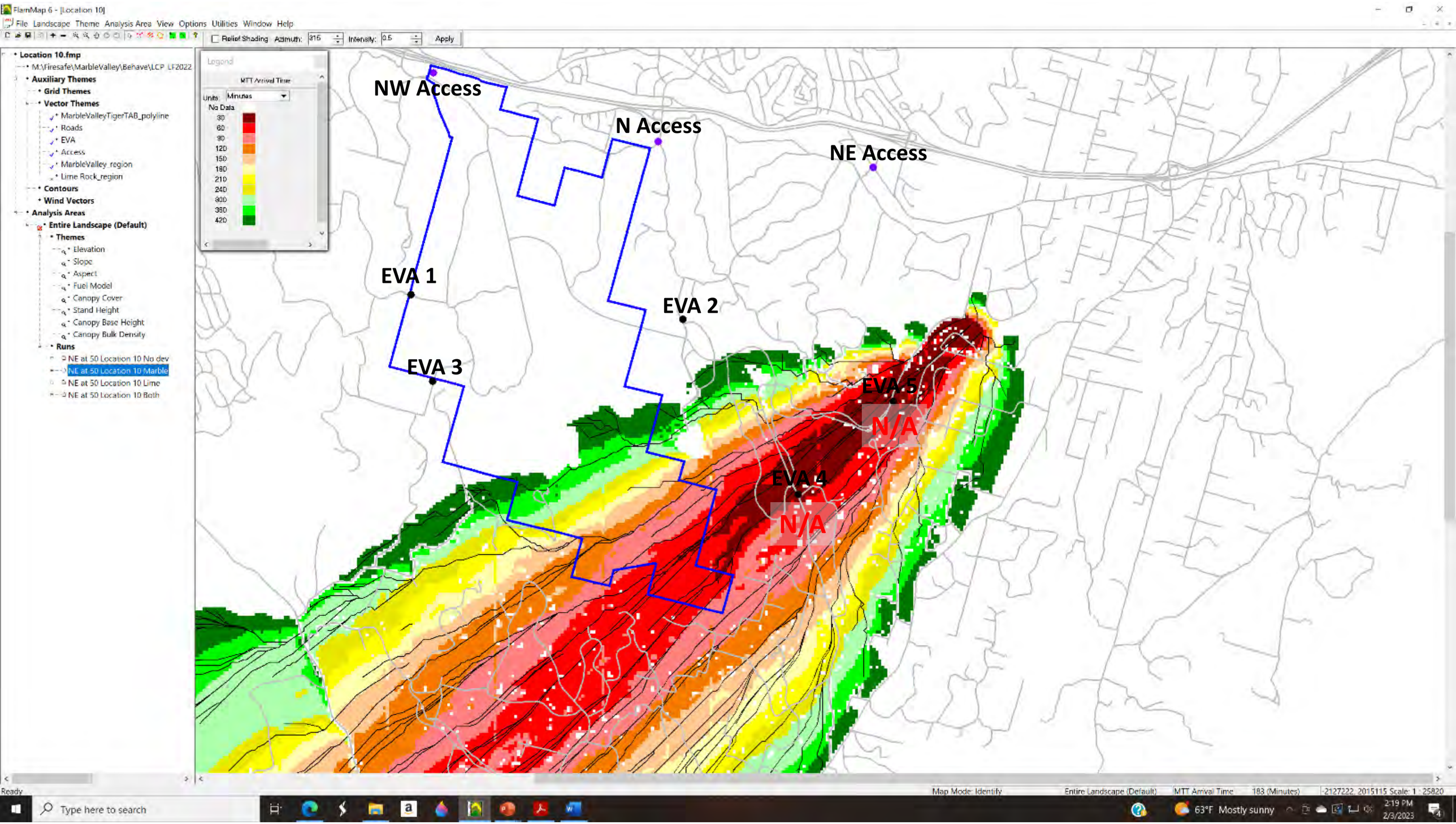
Location 9 E wind at 50 mph Both – Scn 9D



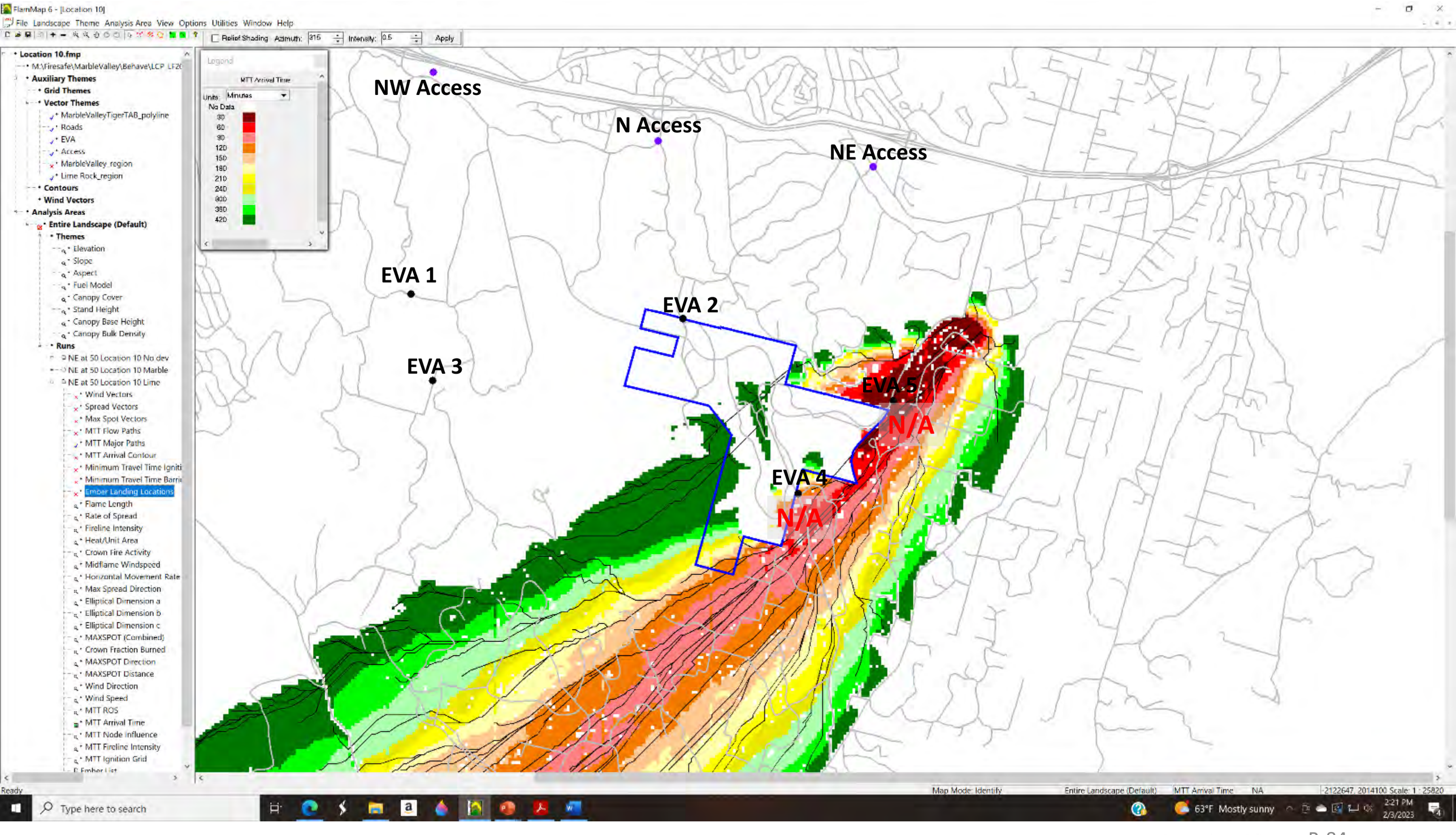
Location 10 NE wind at 50 mph No Dev – Scn 10A



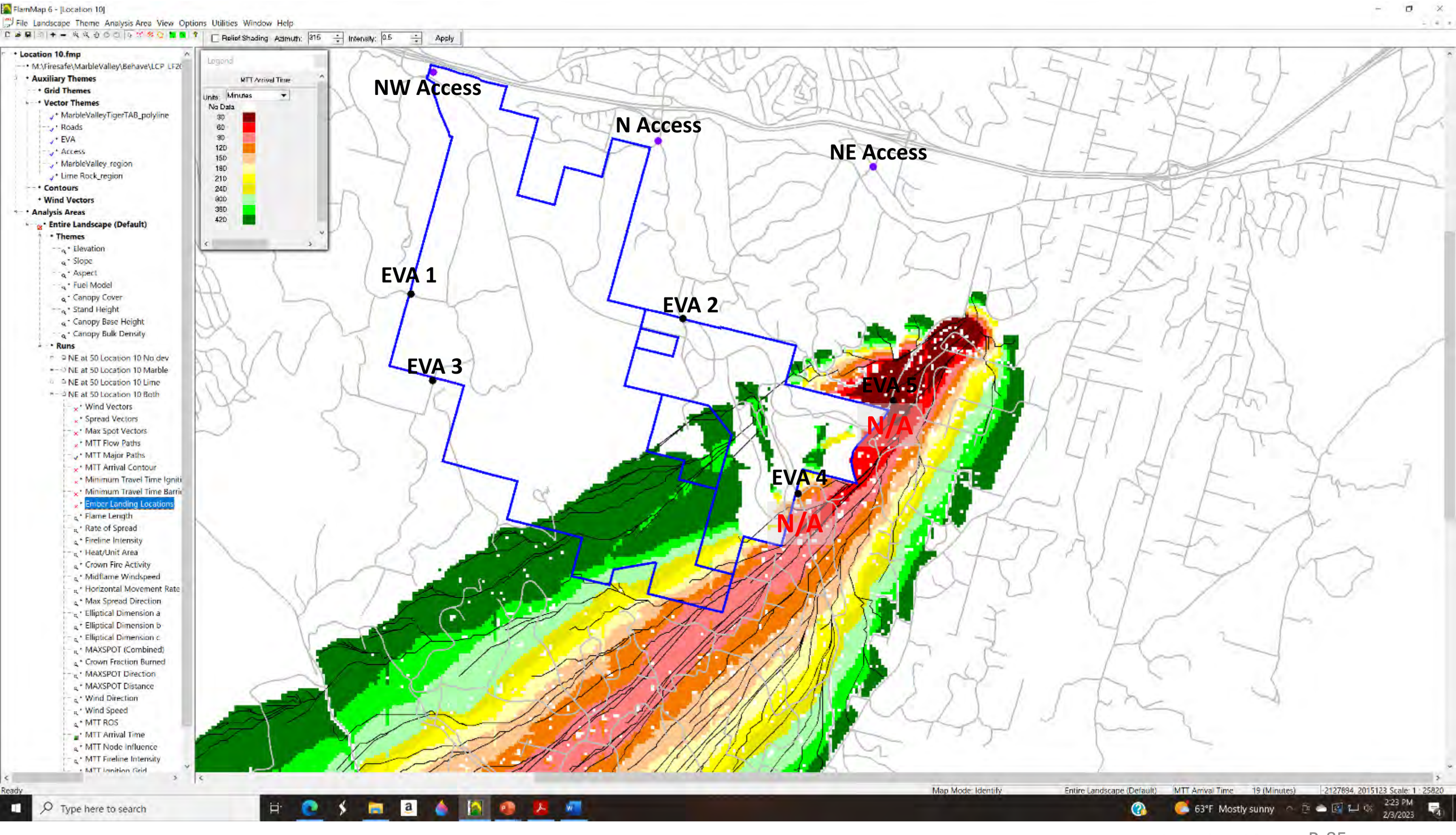
Location 10 NE wind at 50 mph Marble– Scn 10B



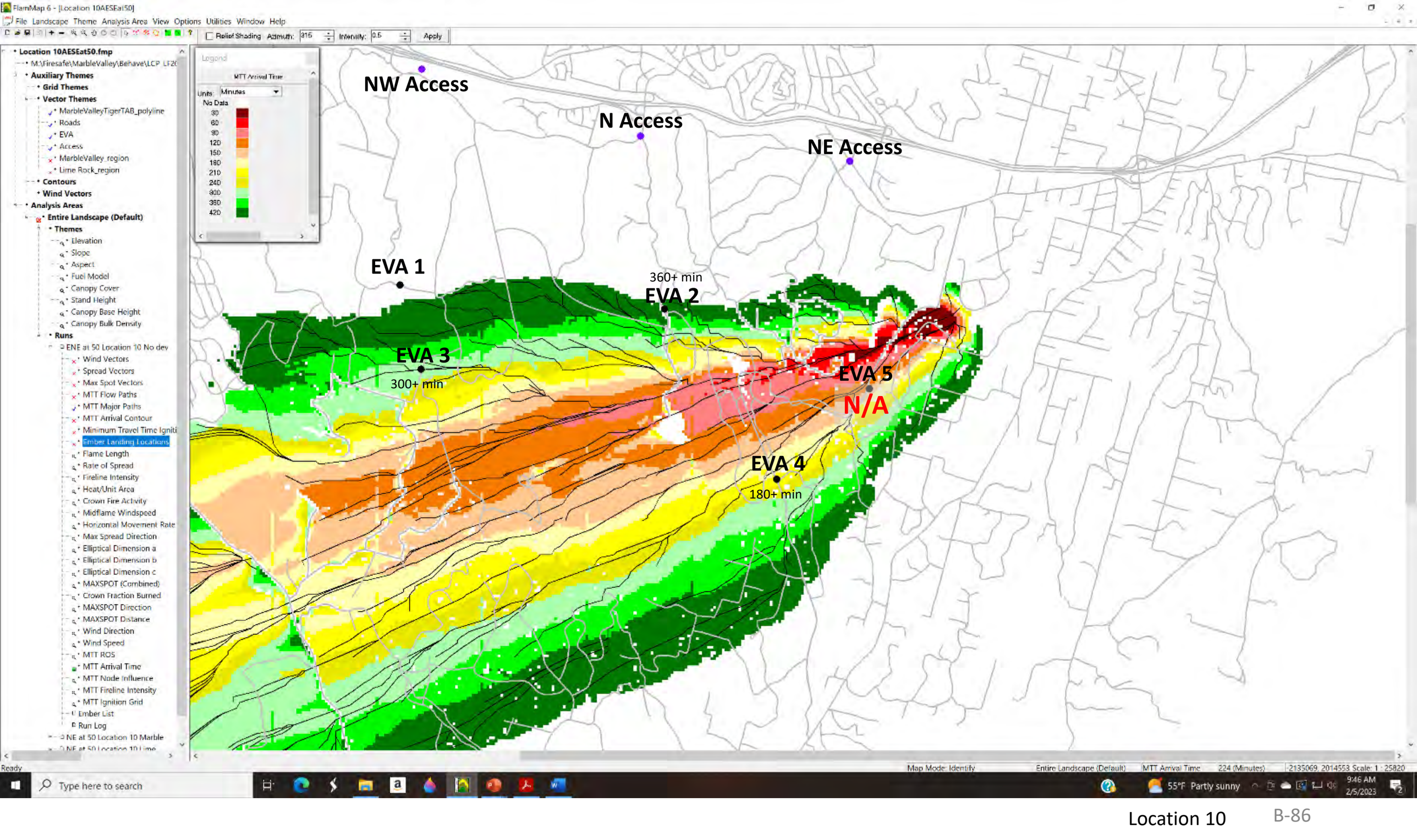
Location 10 NE wind at 50 mph Lime– Scn 10C



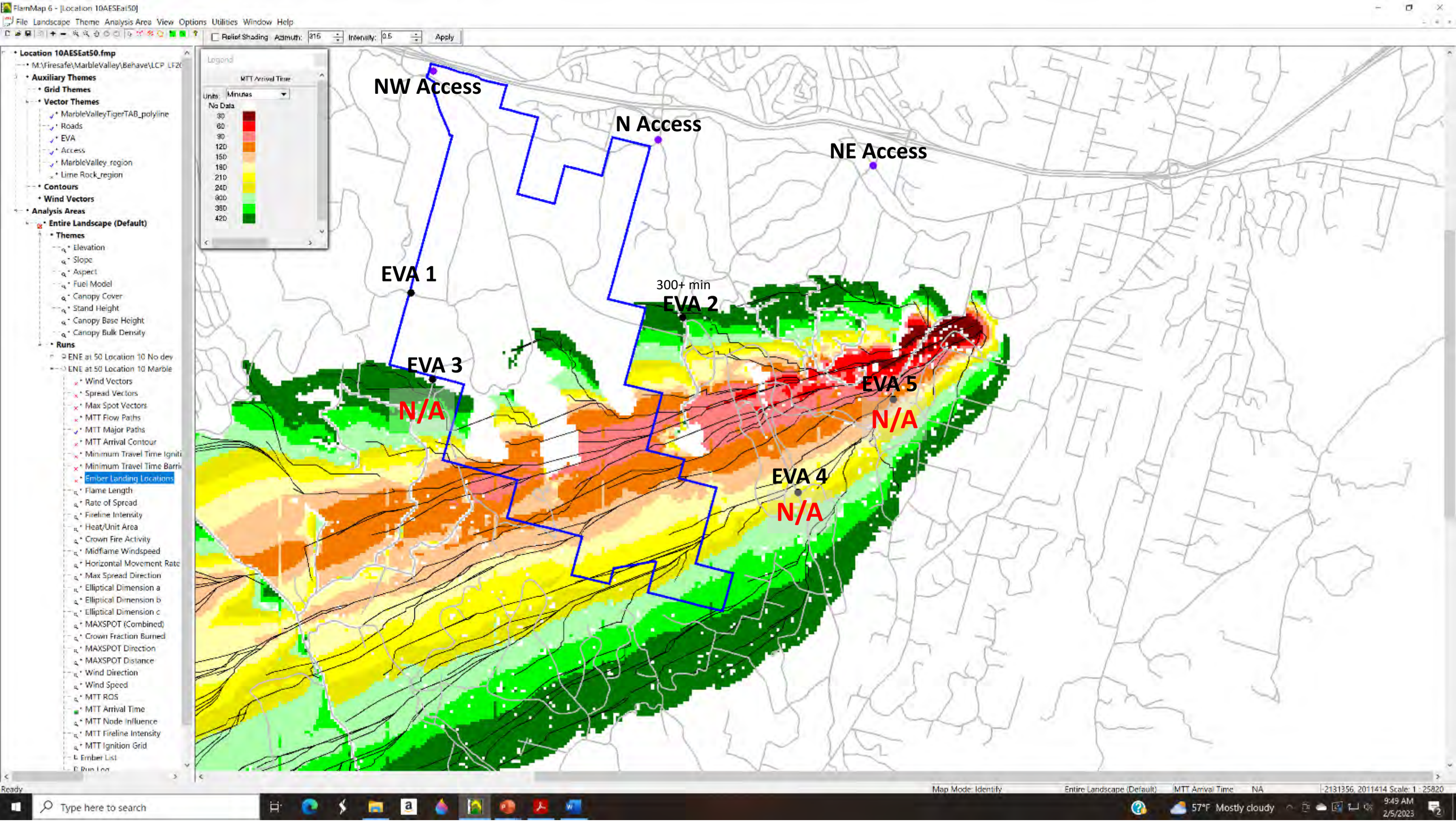
Location 10 NE wind at 50 mph Both – Scn 10D



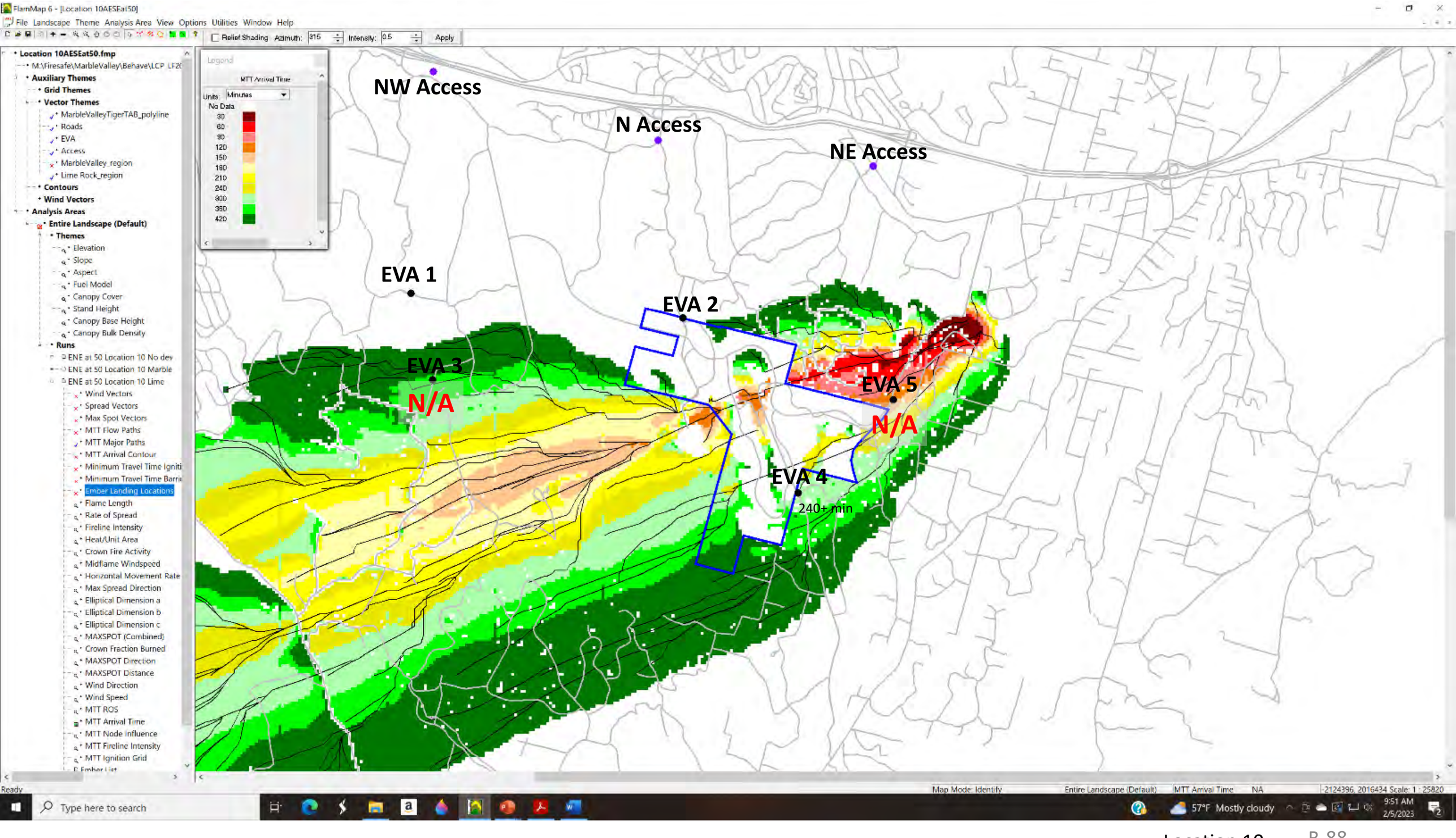
Location 10 ENE wind at 50 mph No Dev – Scn 10E



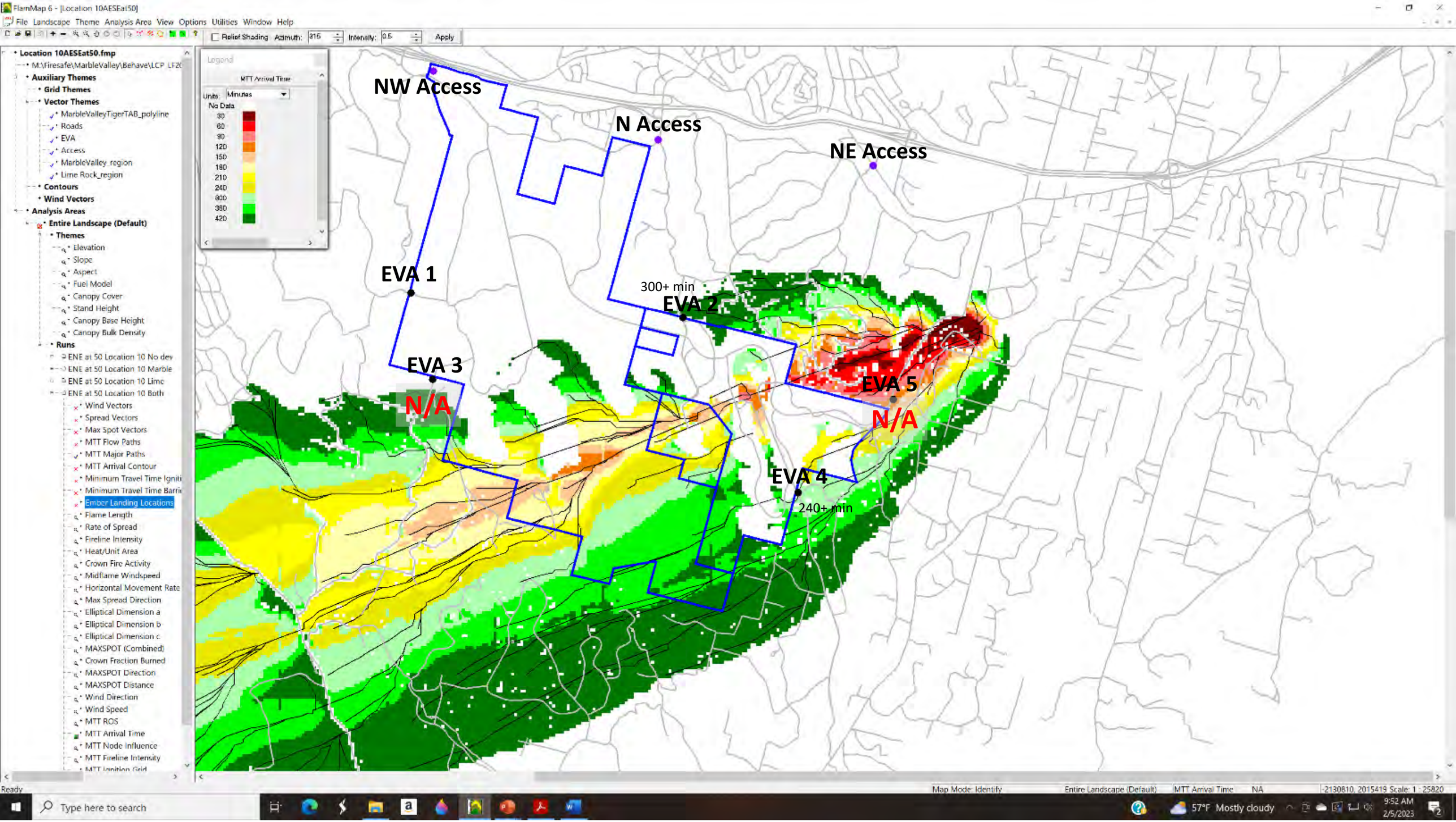
Location 10 ENE wind at 50 mph Marble – Scn 10F



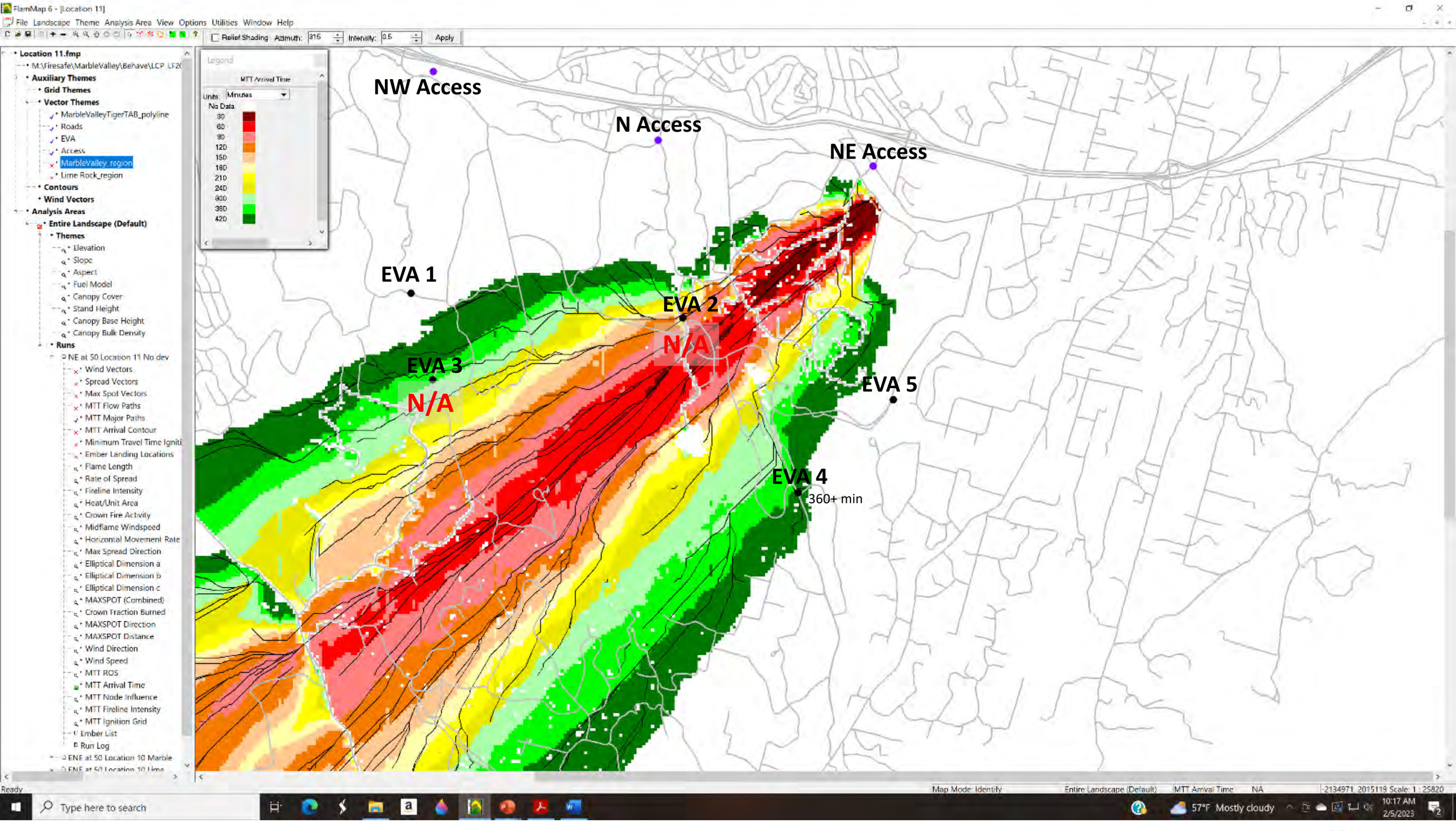
Location 10 ENE wind at 50 mph Lime– Scn 10G



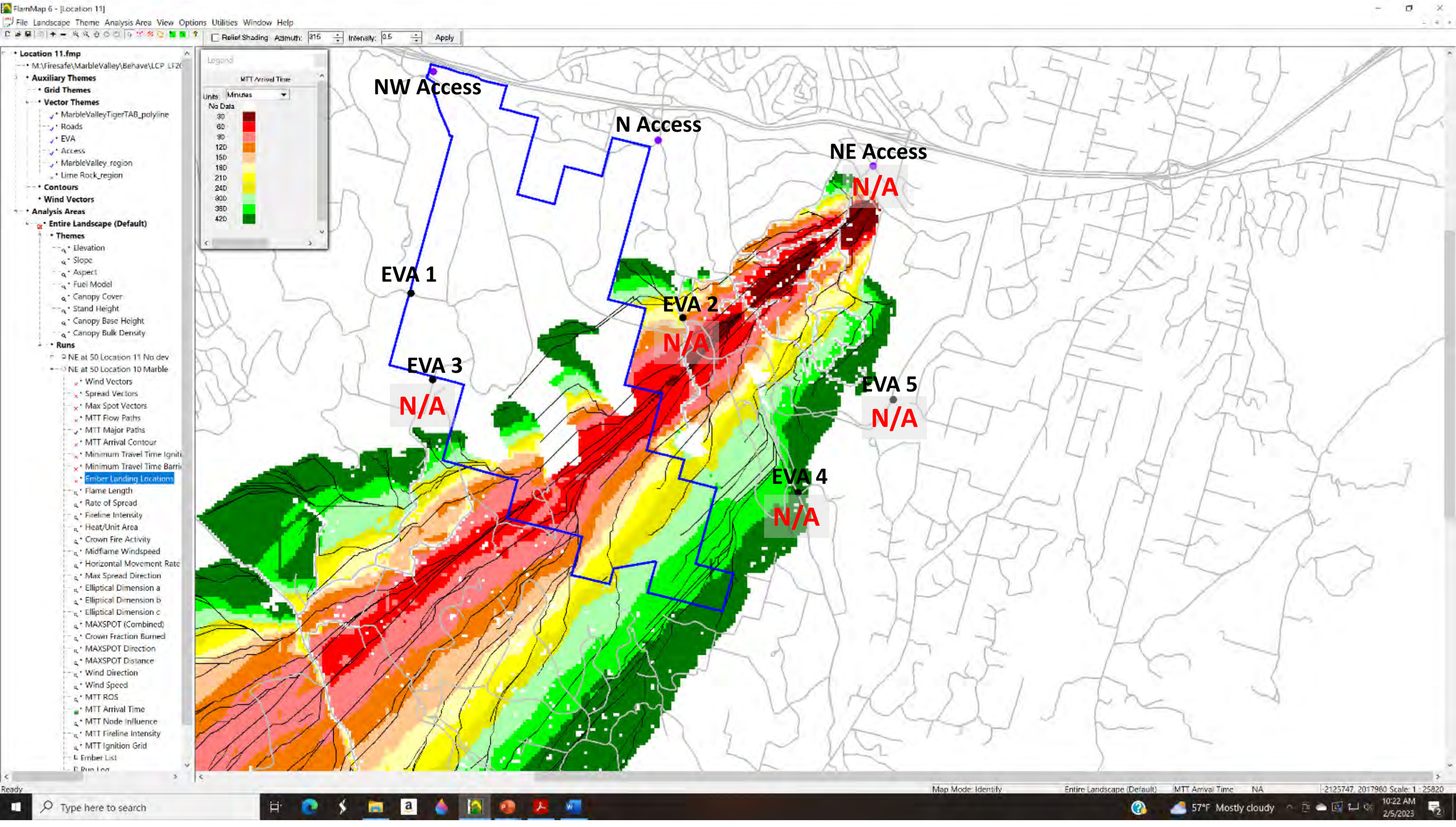
Location 10 ENE wind at 50 mph Both – Scn 10H



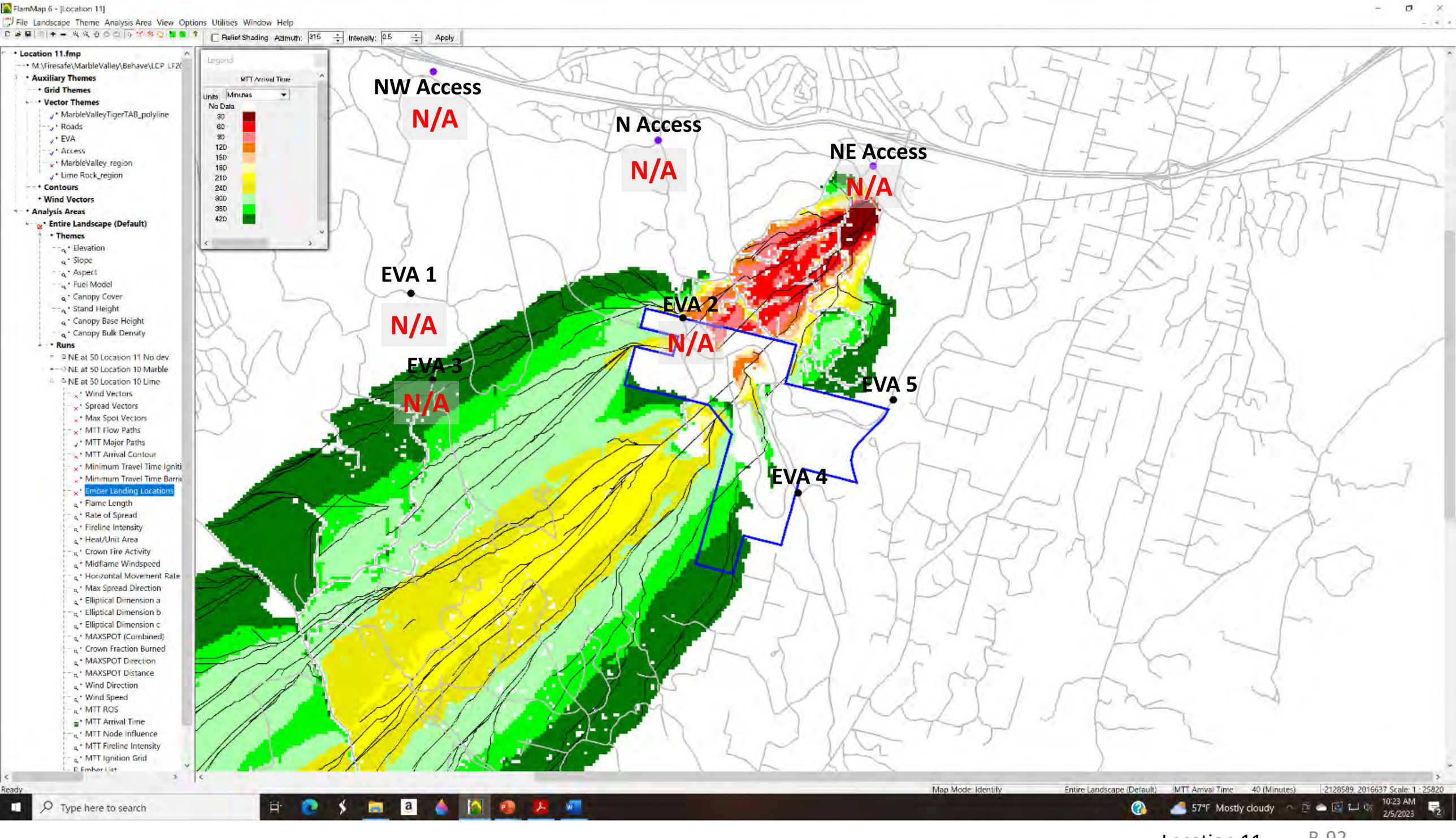
Location 11 NE wind at 50 mph No Dev – Scn 11A



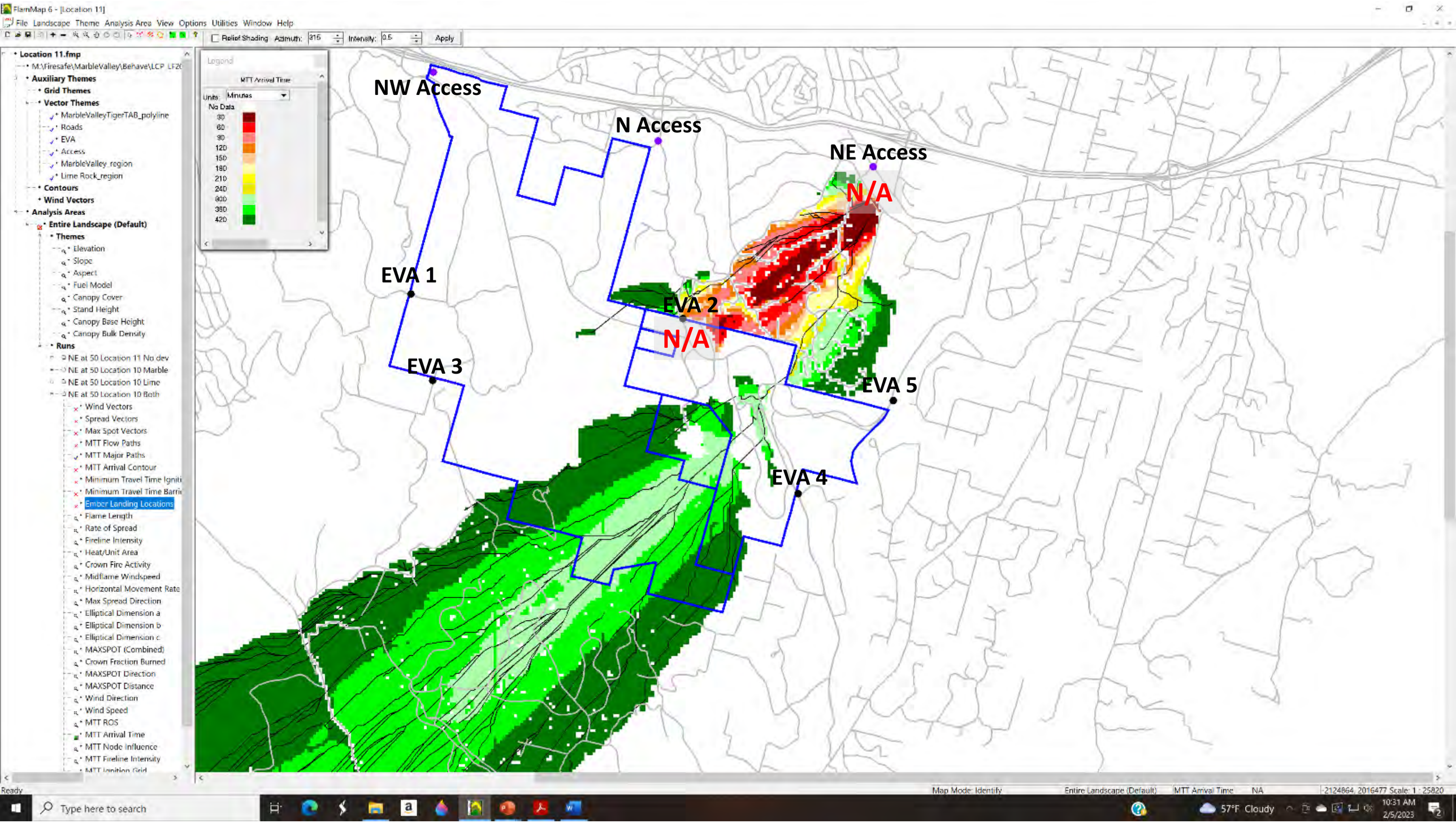
Location 11 NE wind at 50 mph Marble – Scn 11B



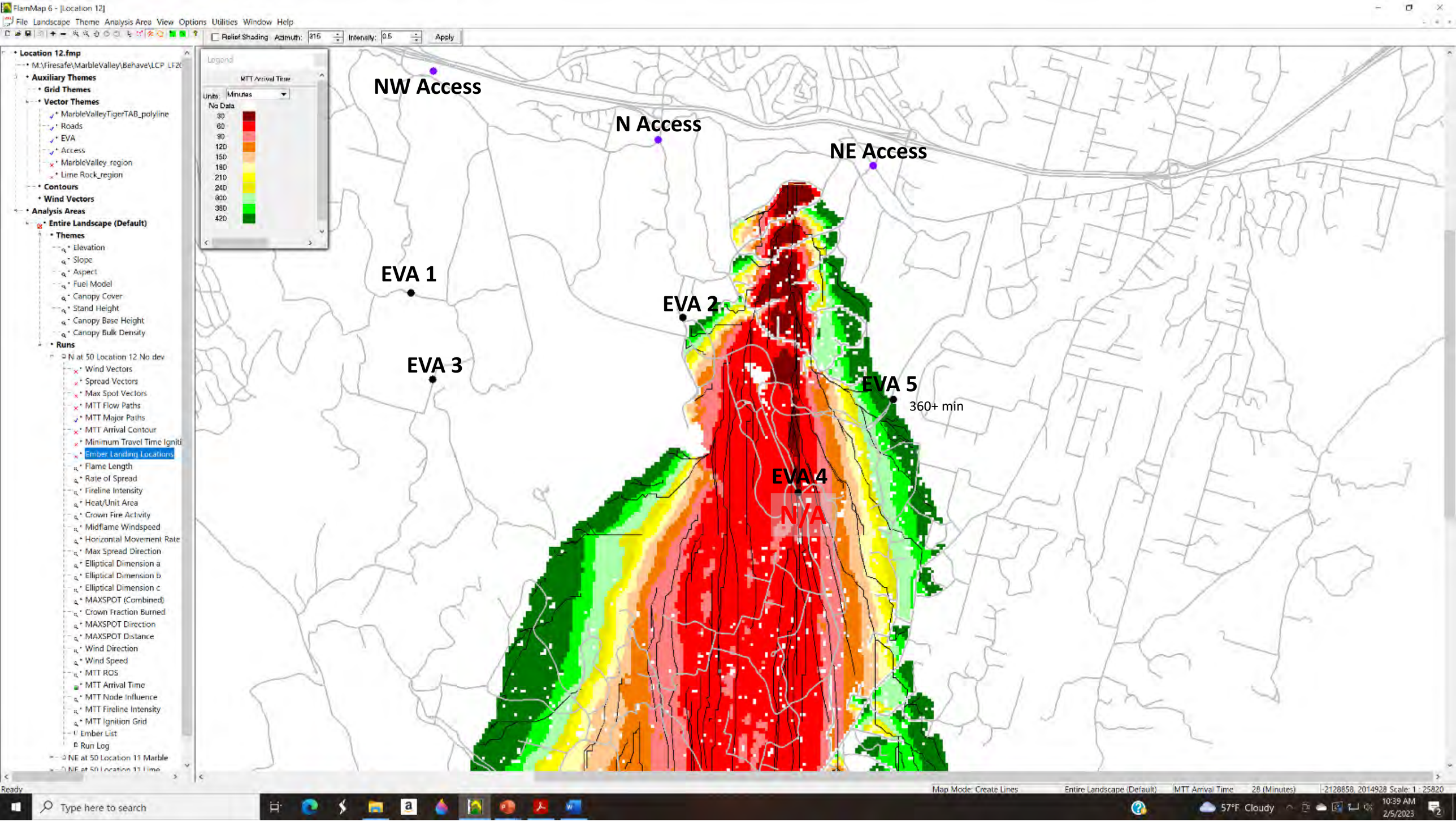
Location 11 NE wind at 50 mph Lime – Scn 11C



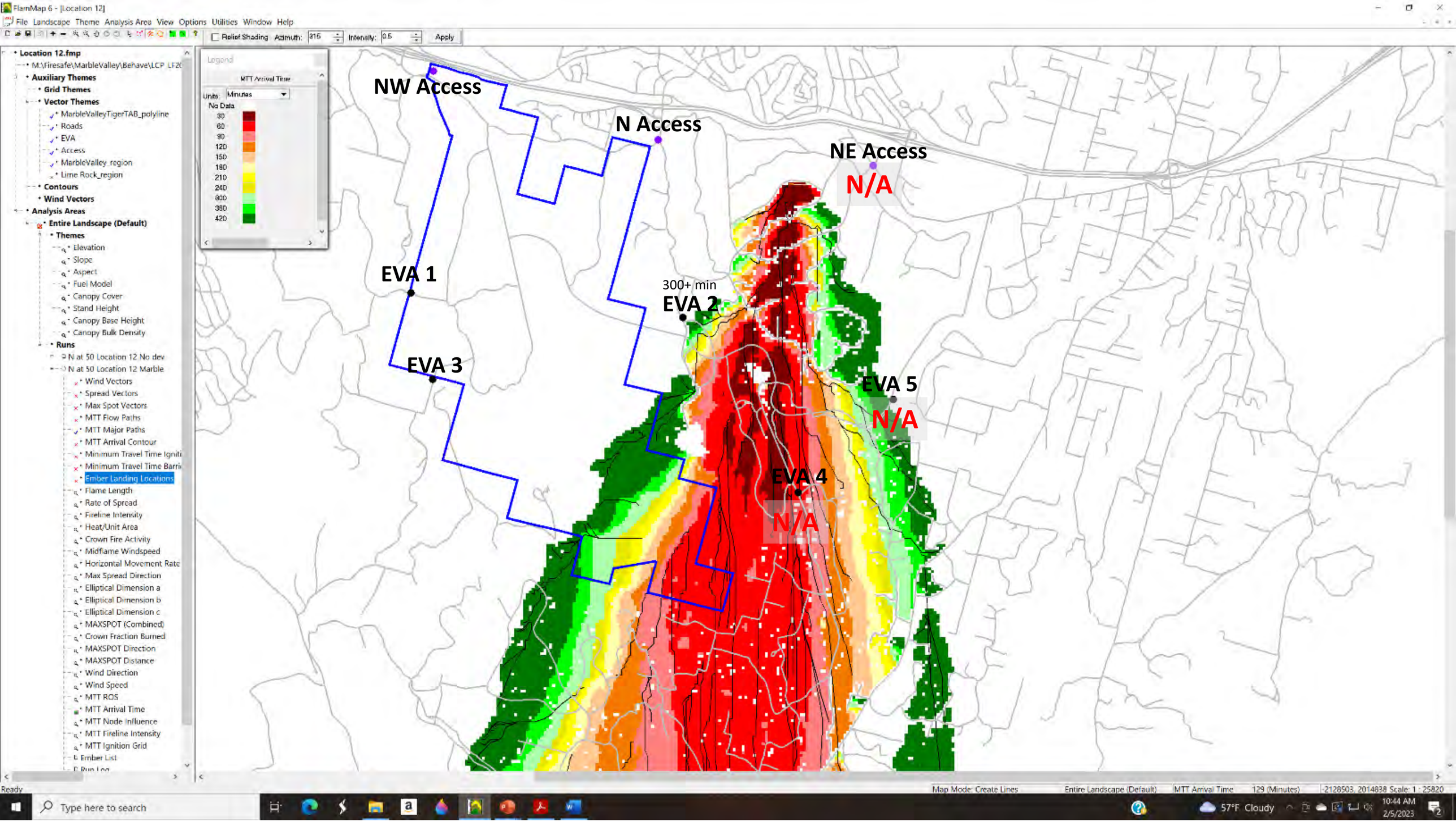
Location 11 NE wind at 50 mph Both – Scn 11D



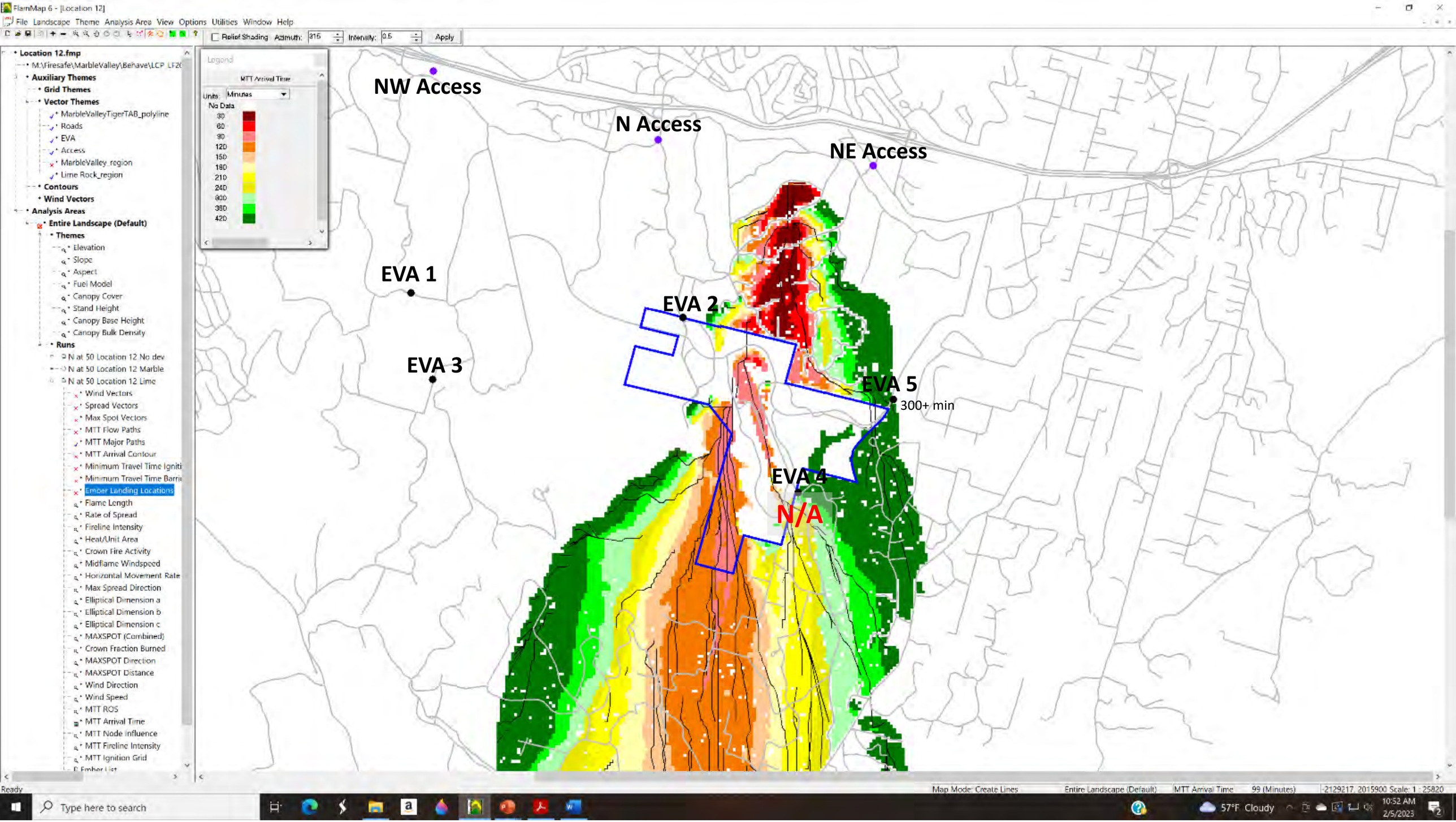
Location 12 N wind at 50 mph No Dev – Scn 12A



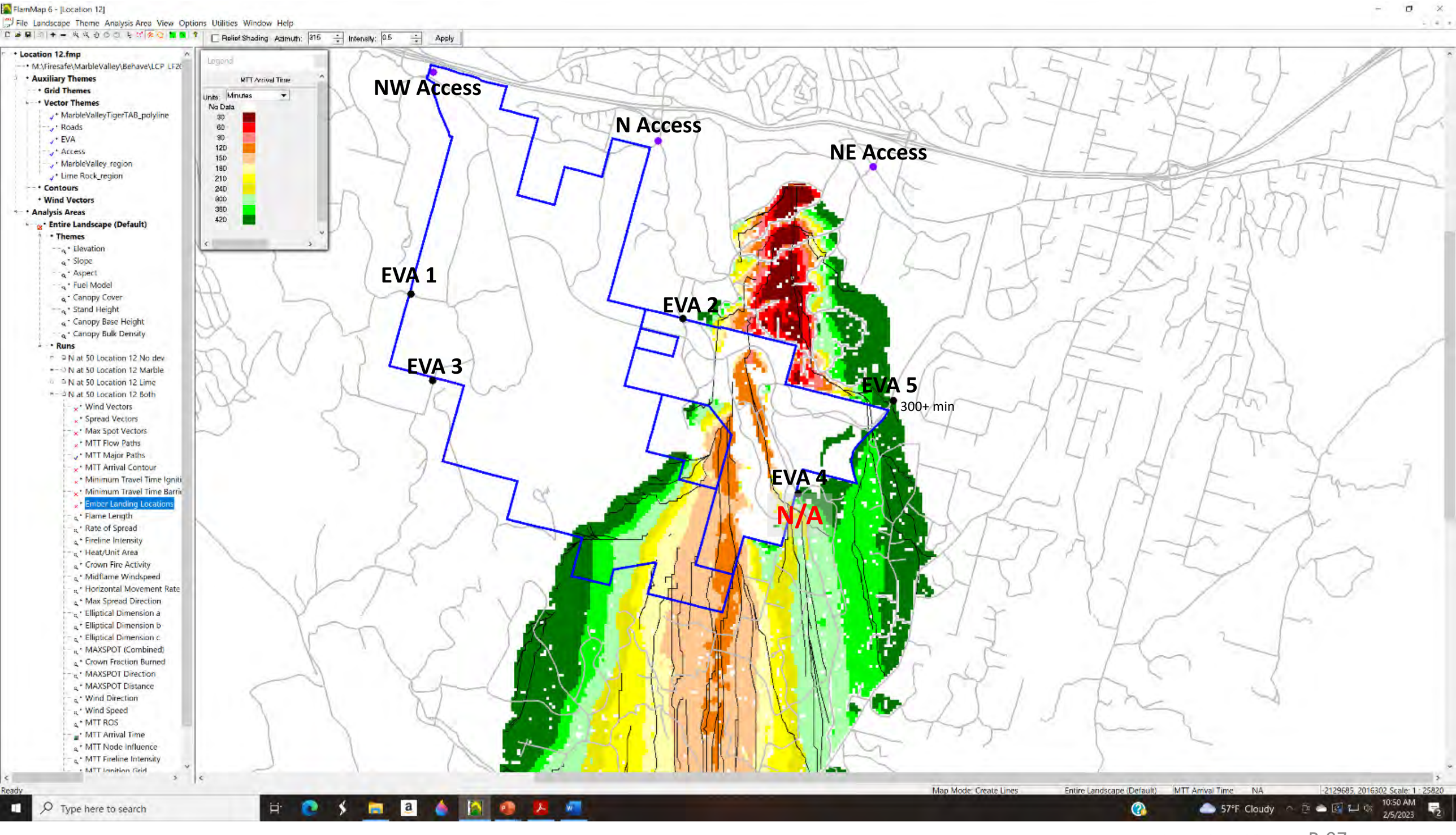
Location 12 N wind at 50 mph Marble – Scn 12B



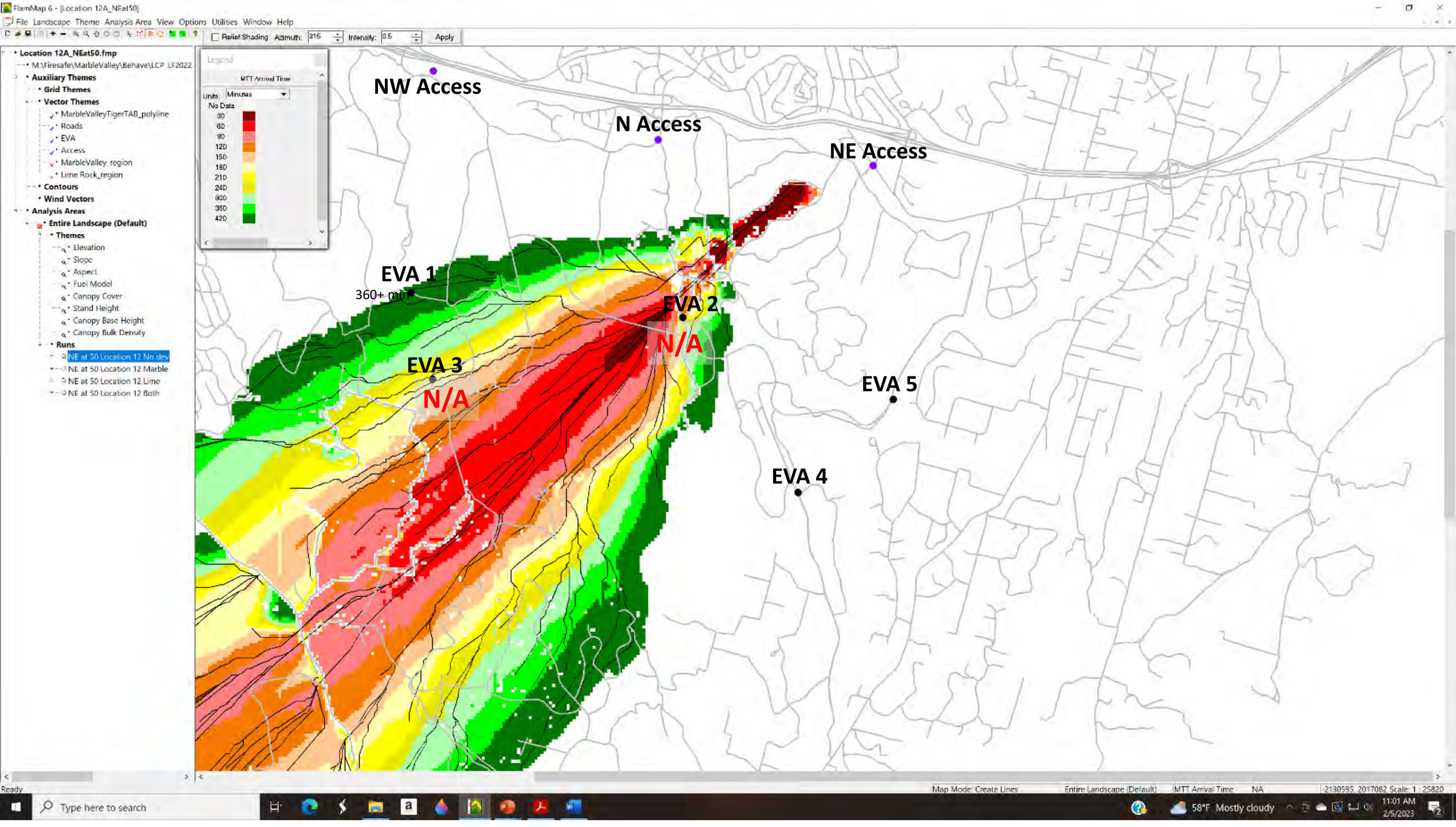
Location 12 N wind at 50 mph Lime – Scn 12C



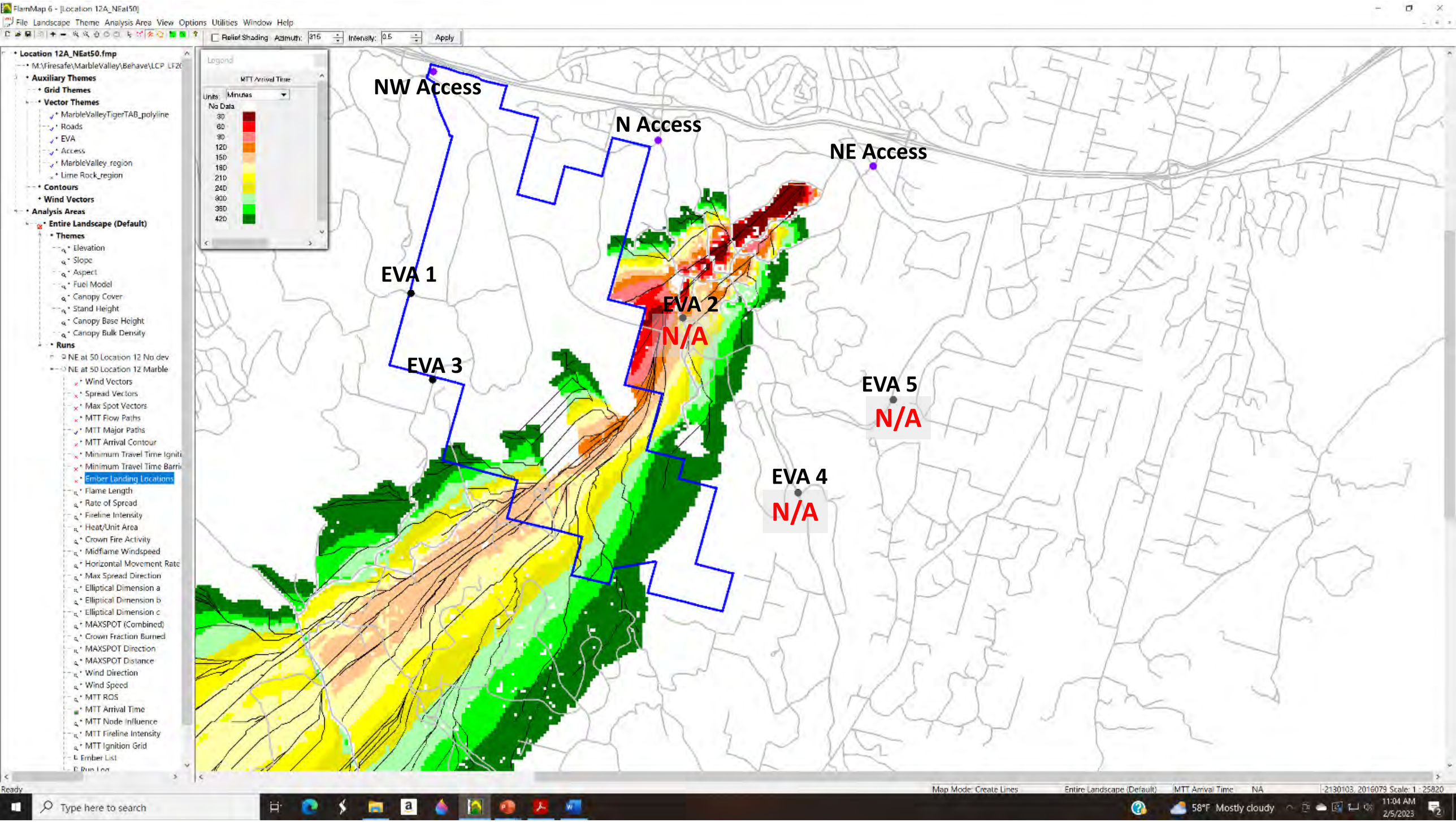
Location 12 N wind at 50 mph Both – Scn 12D



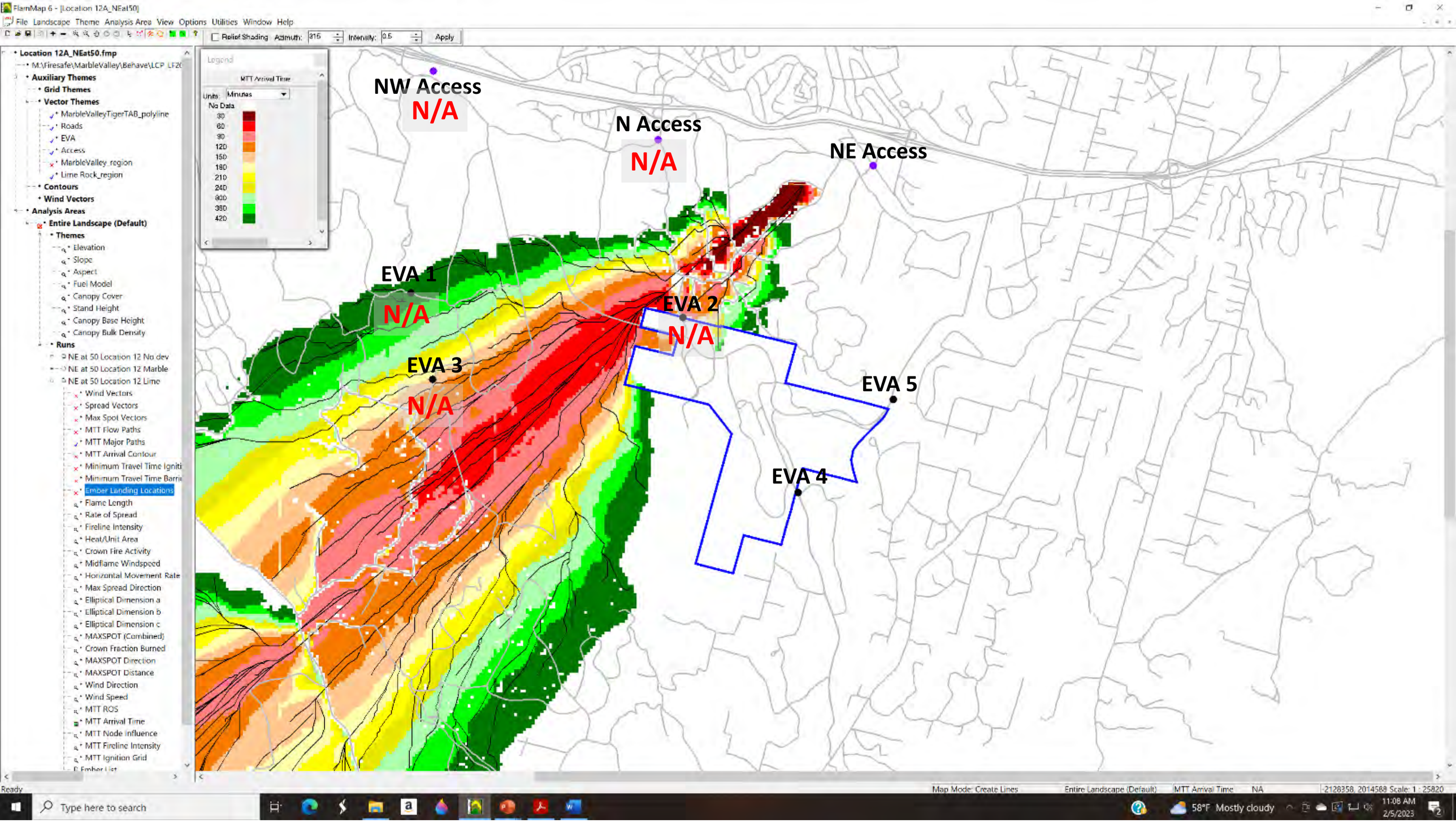
Location 12 NE wind at 50 mph No Dev – Scn 12E



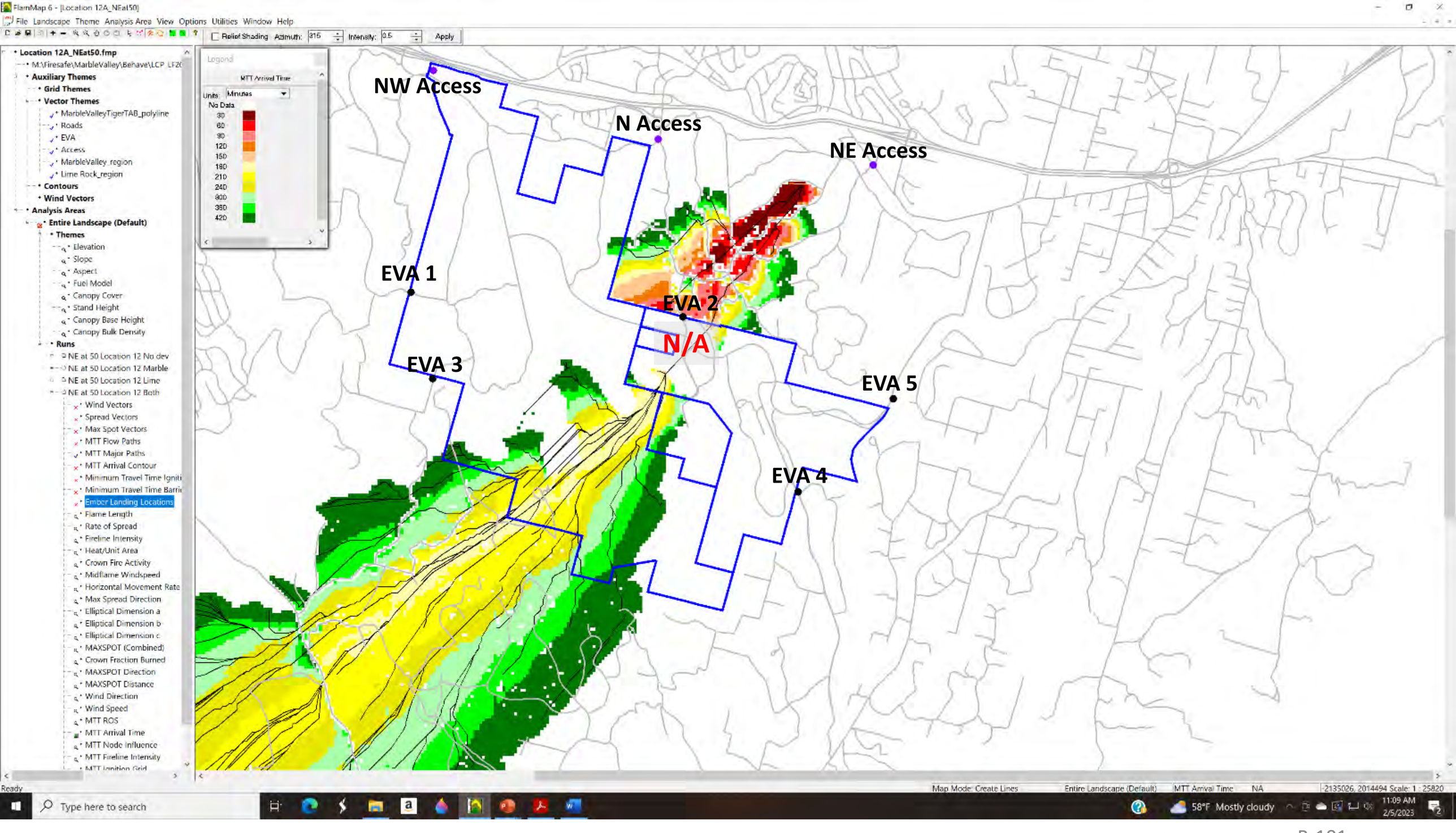
Location 12 NE wind at 50 mph Marble – Scn 12F



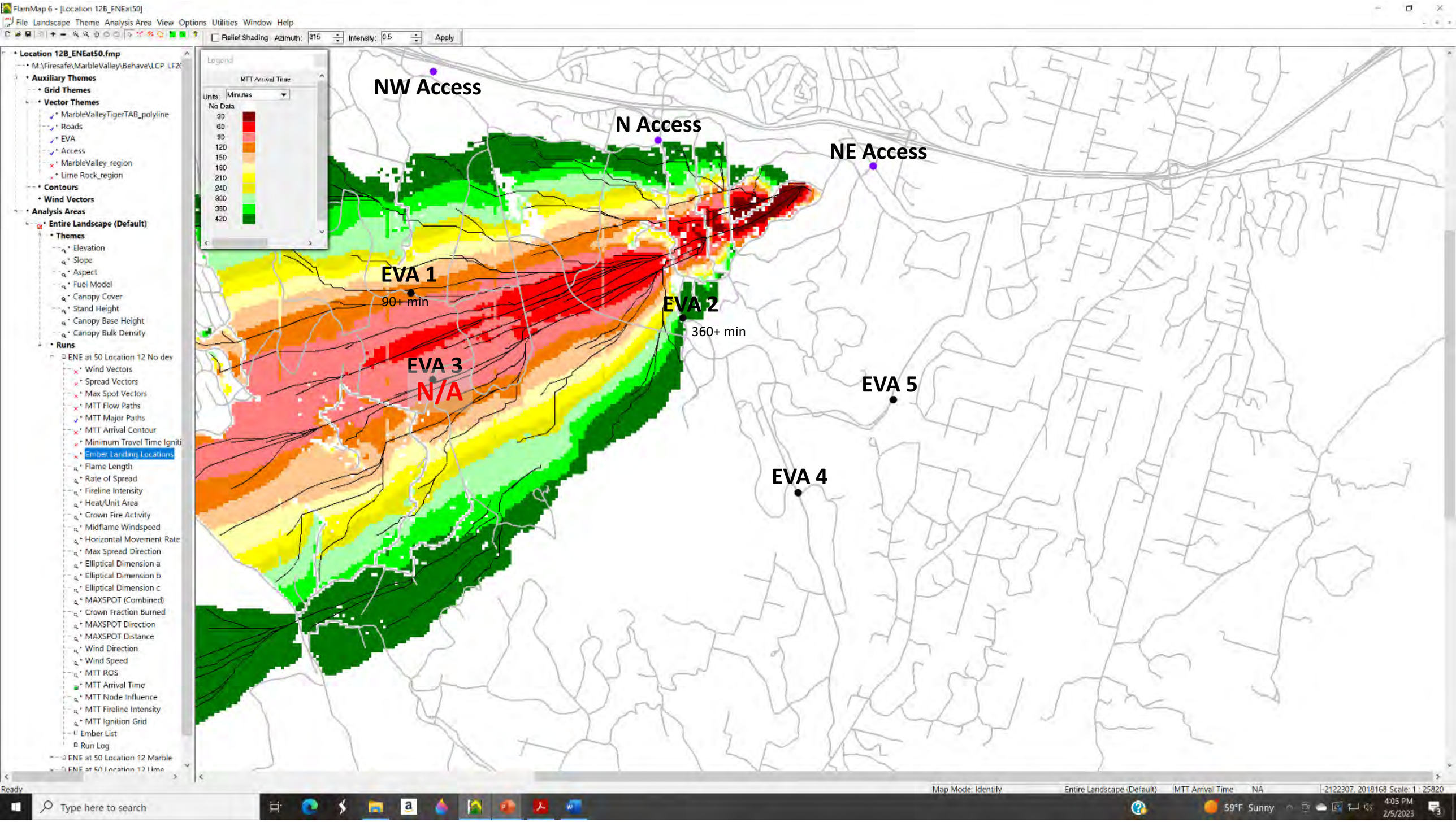
Location 12 NE wind at 50 mph Lime – Scn 12G



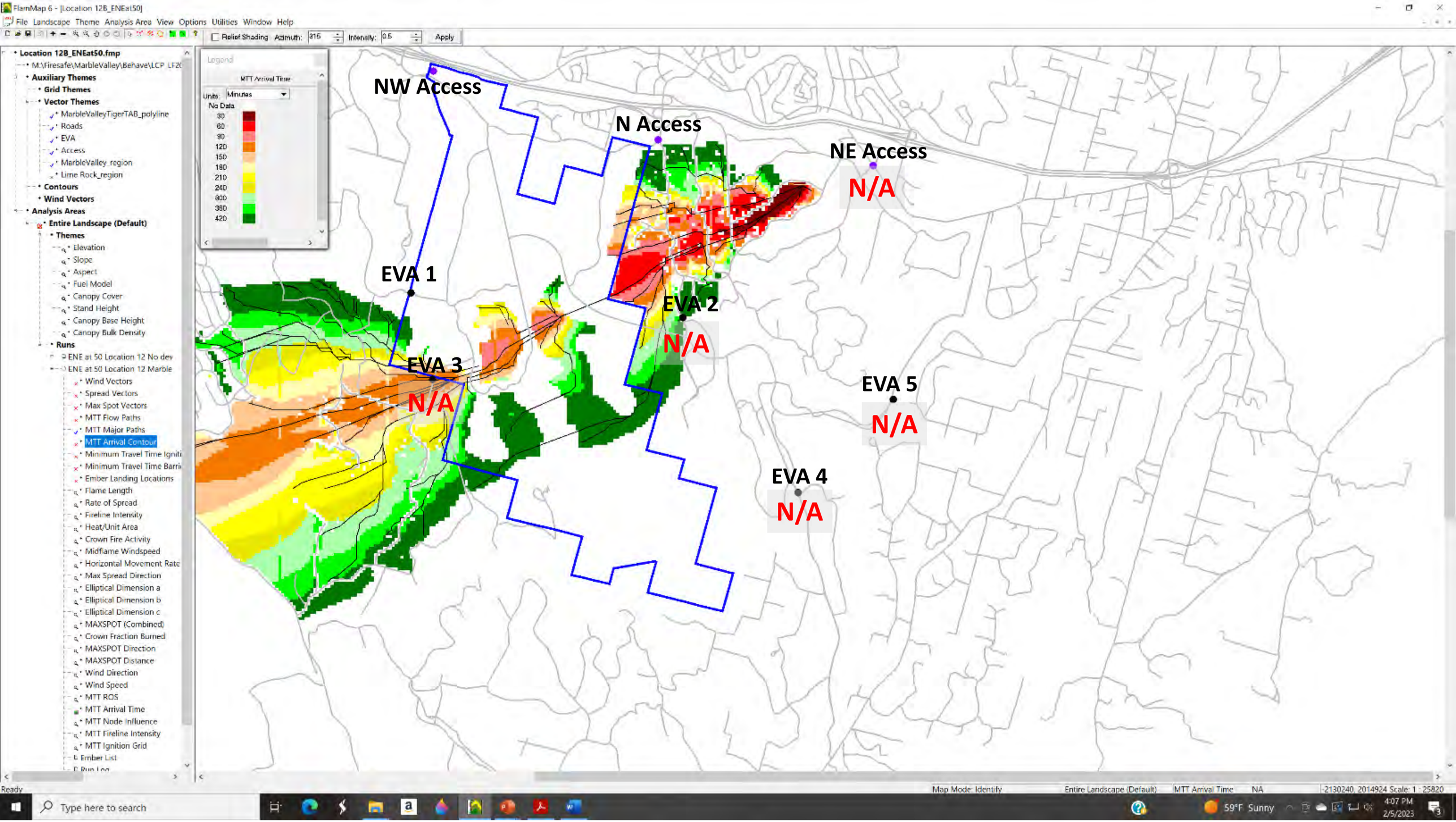
Location 12 NE wind at 50 mph Both – Scn 12H



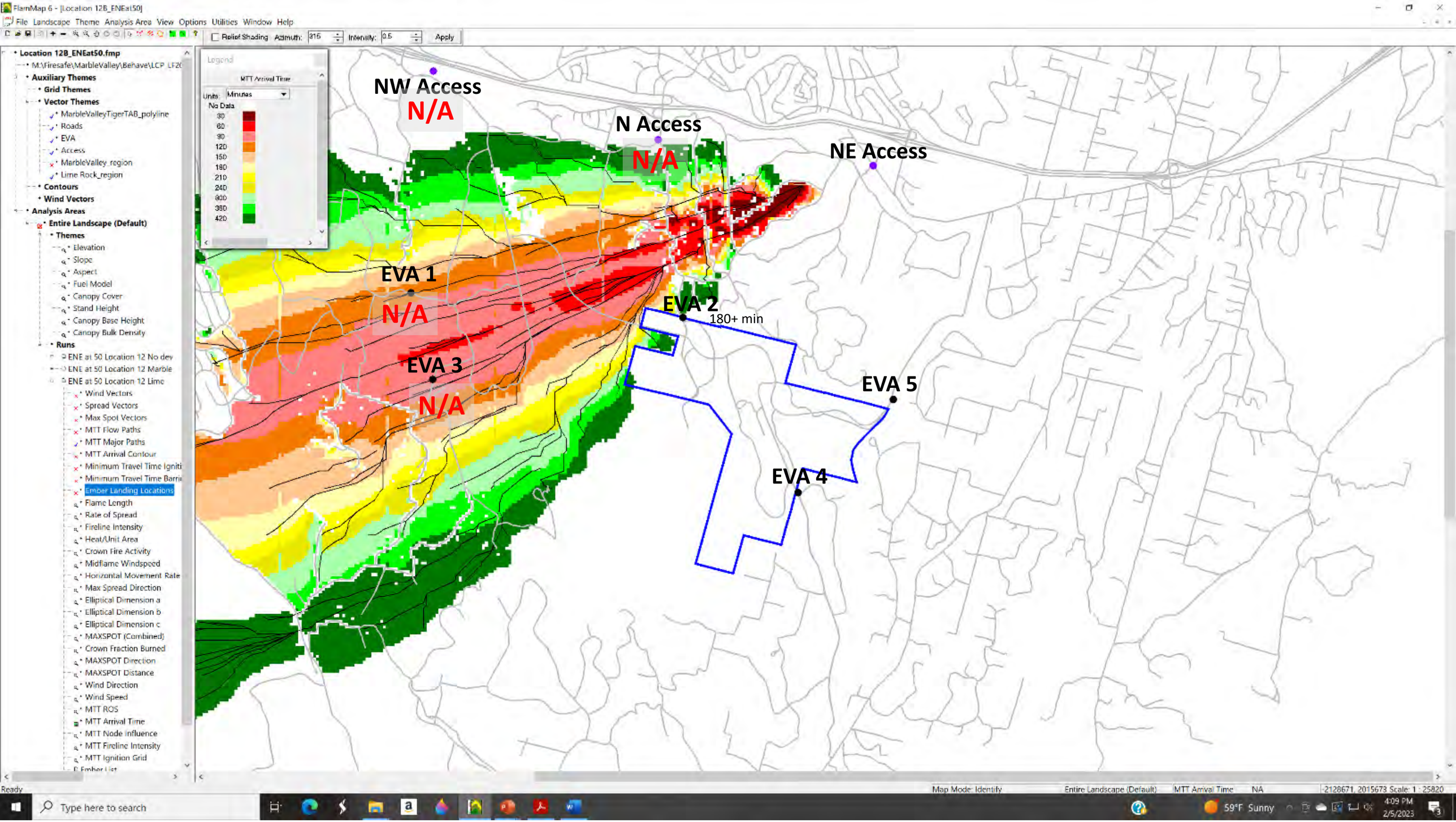
Location 12 ENE wind at 50 mph No Dev – Scn 12I



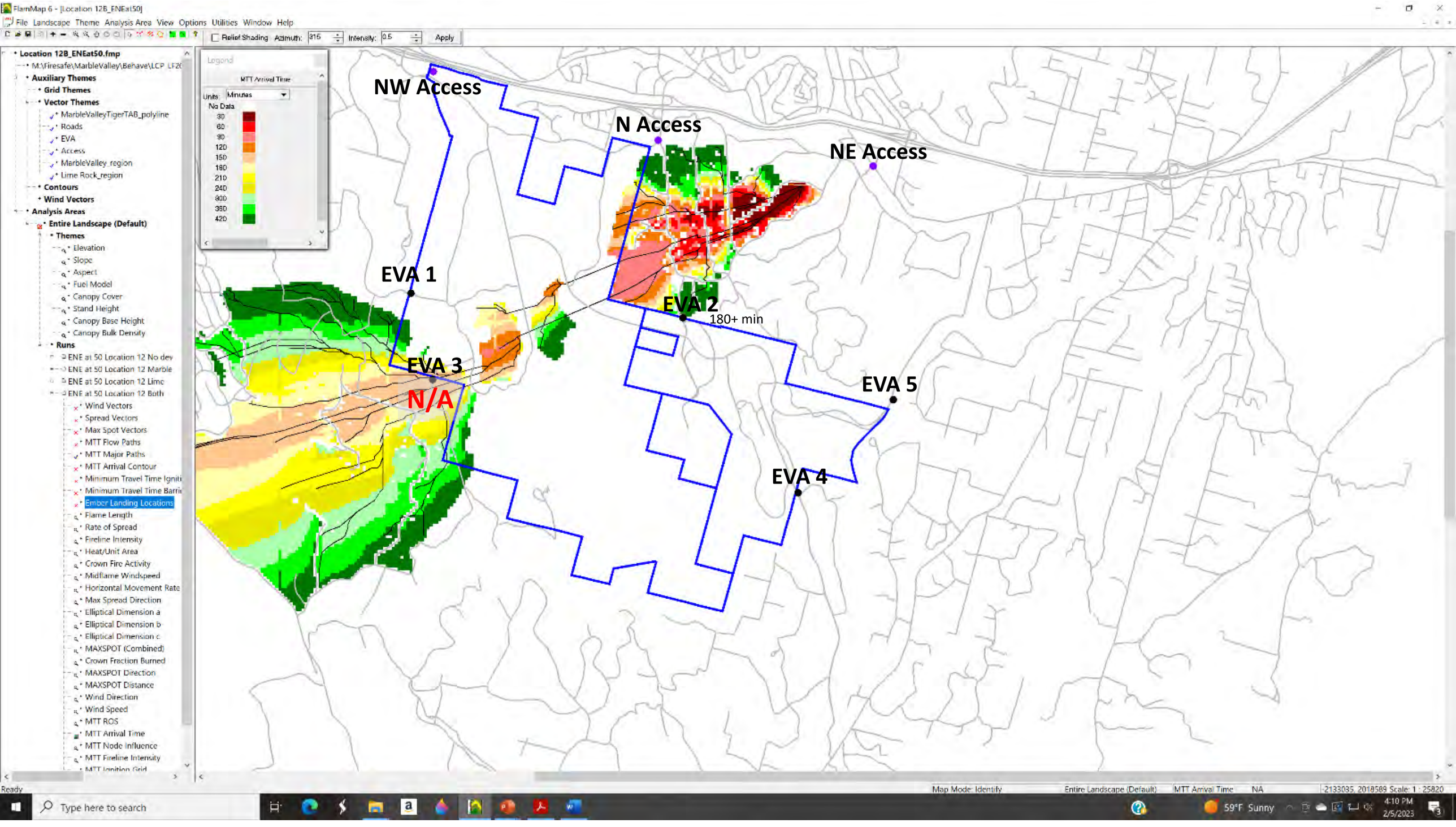
Location 12 ENE wind at 50 mph Marble– Scn 12J



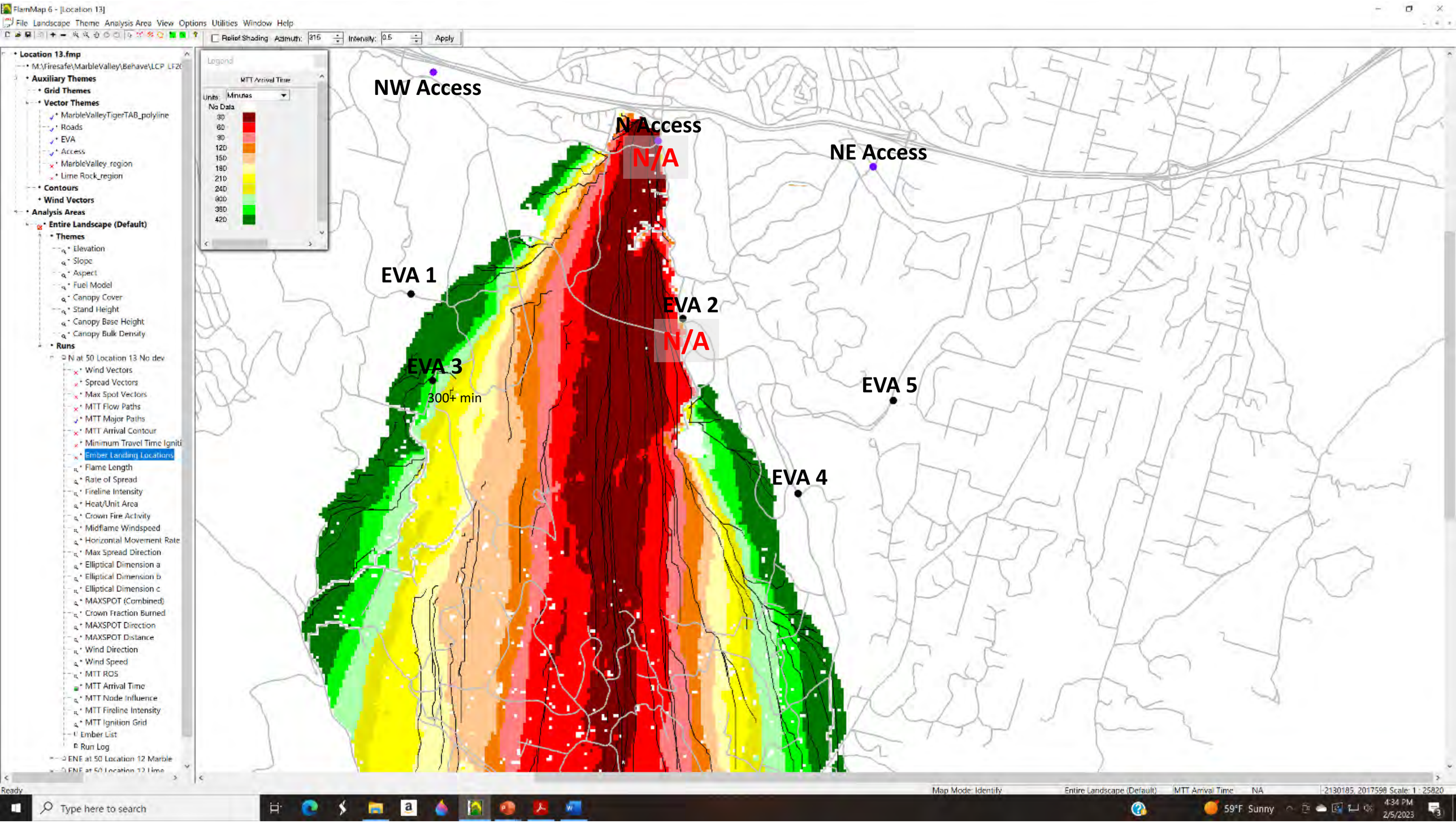
Location 12 ENE wind at 50 mph Lime– Scn 12K



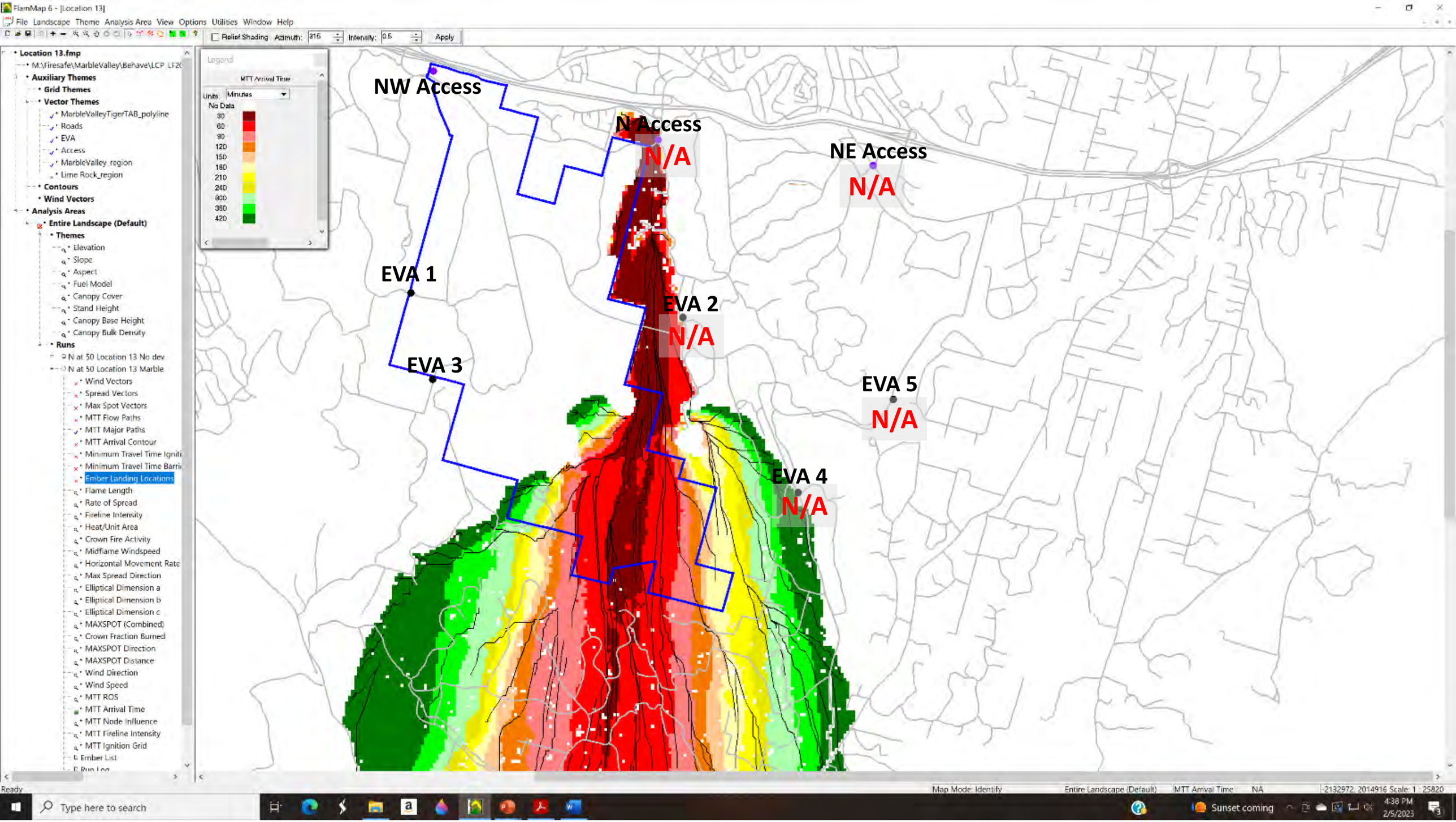
Location 12 ENE wind at 50 mph Both– Scn 12L



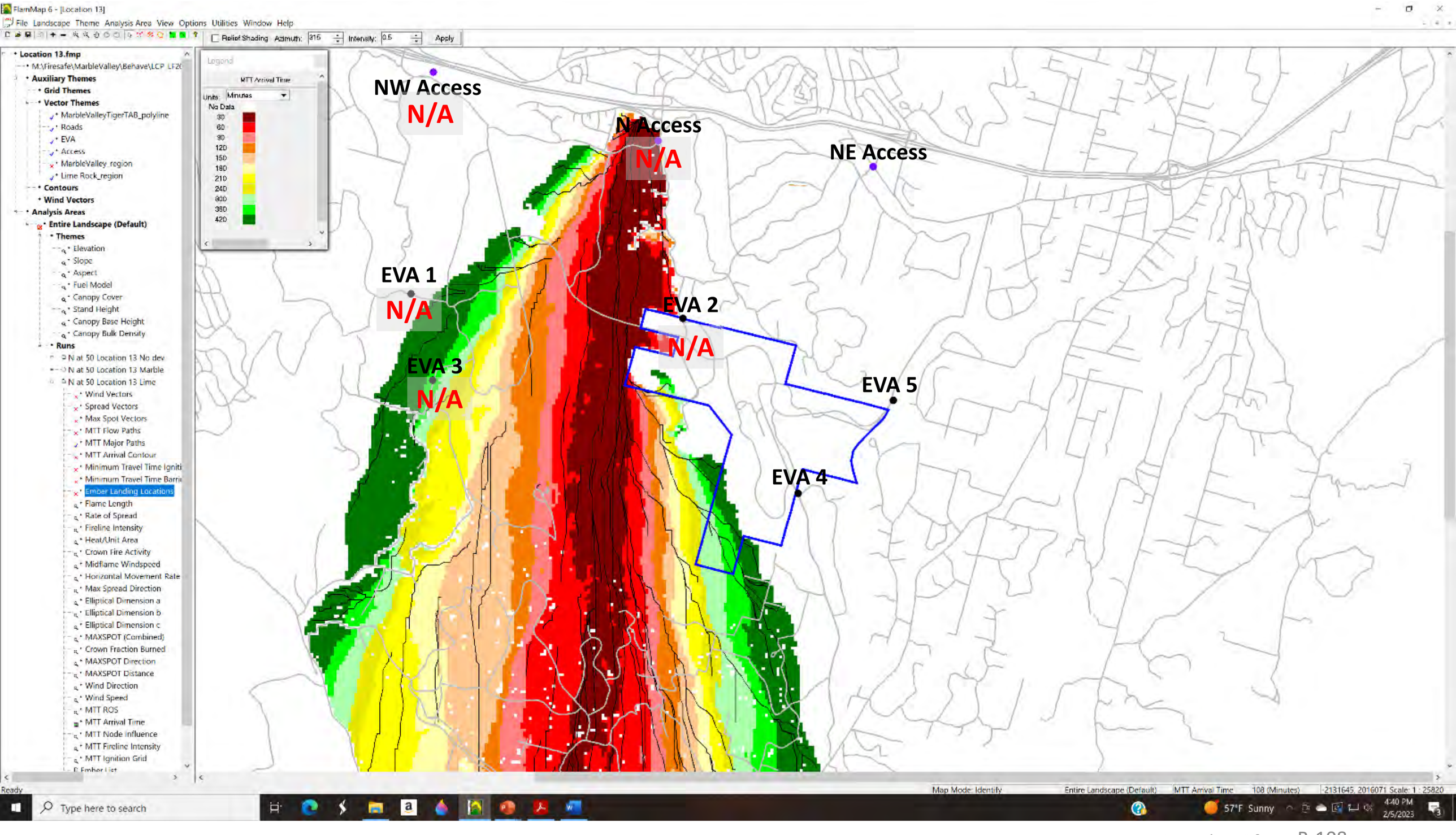
Location 13 N wind at 50 mph No Dev – Scn 13A



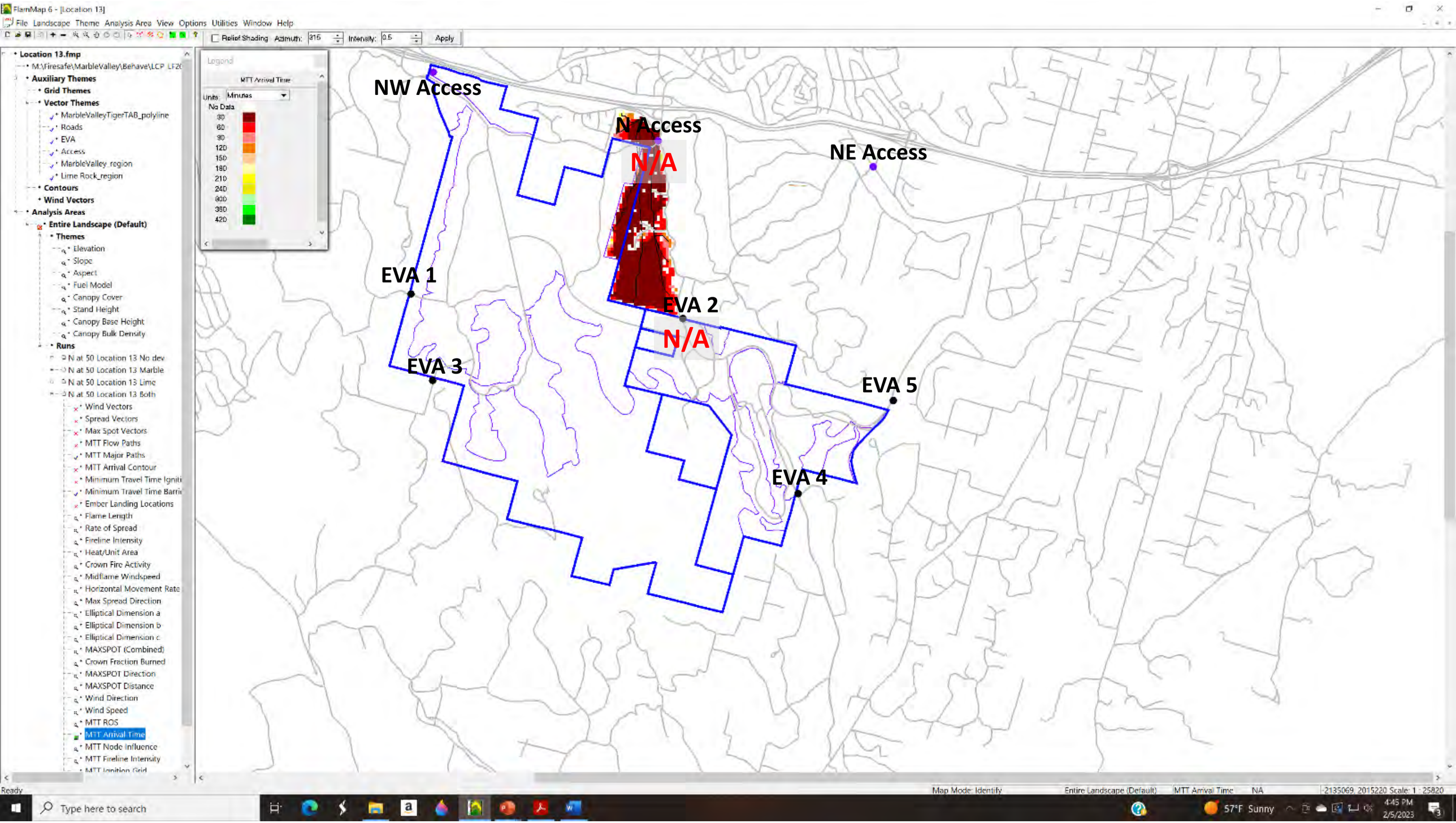
Location 13 N wind at 50 mph Marble – Scn 13B



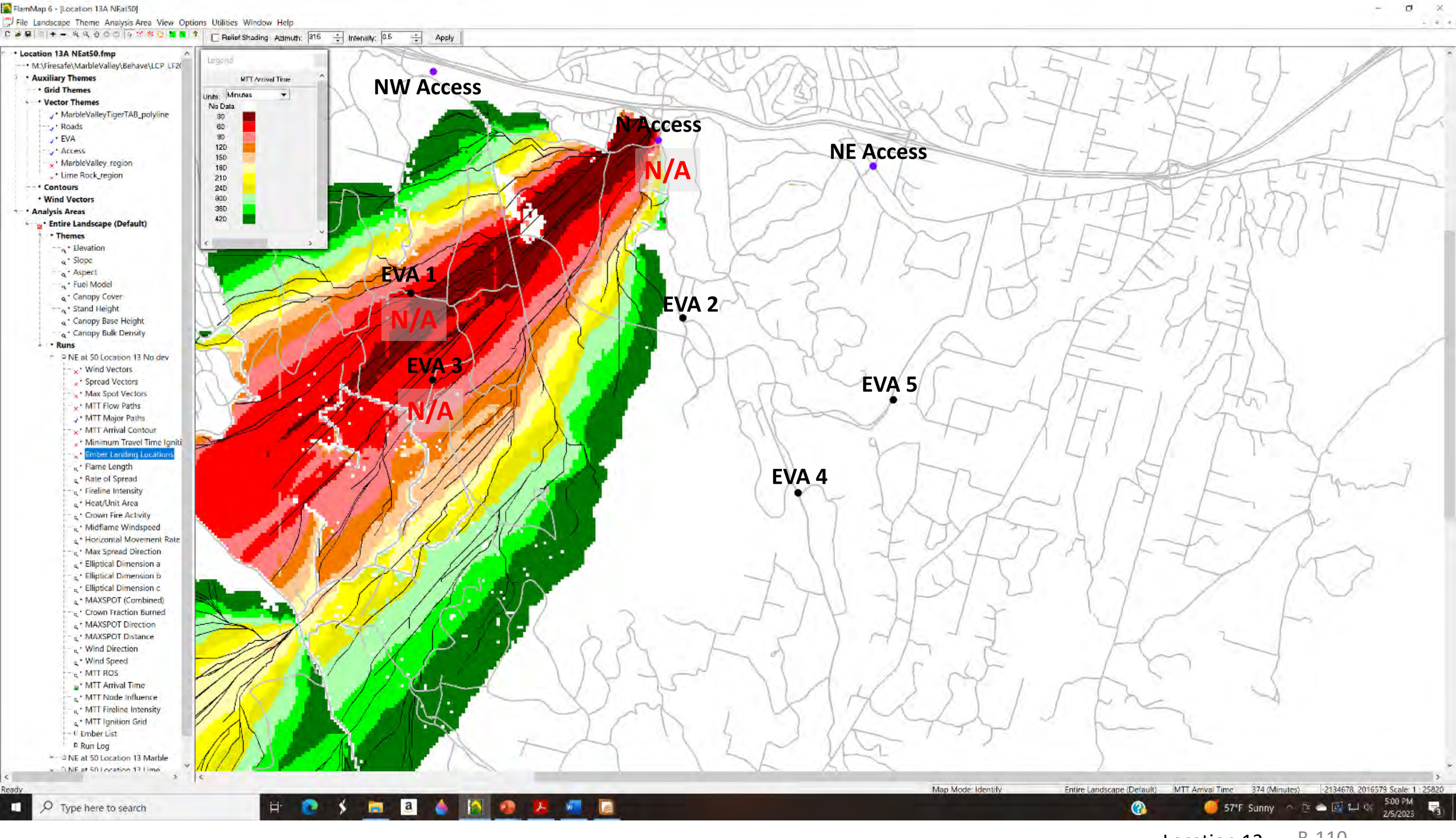
Location 13 N wind at 50 mph Lime – Scn 13C



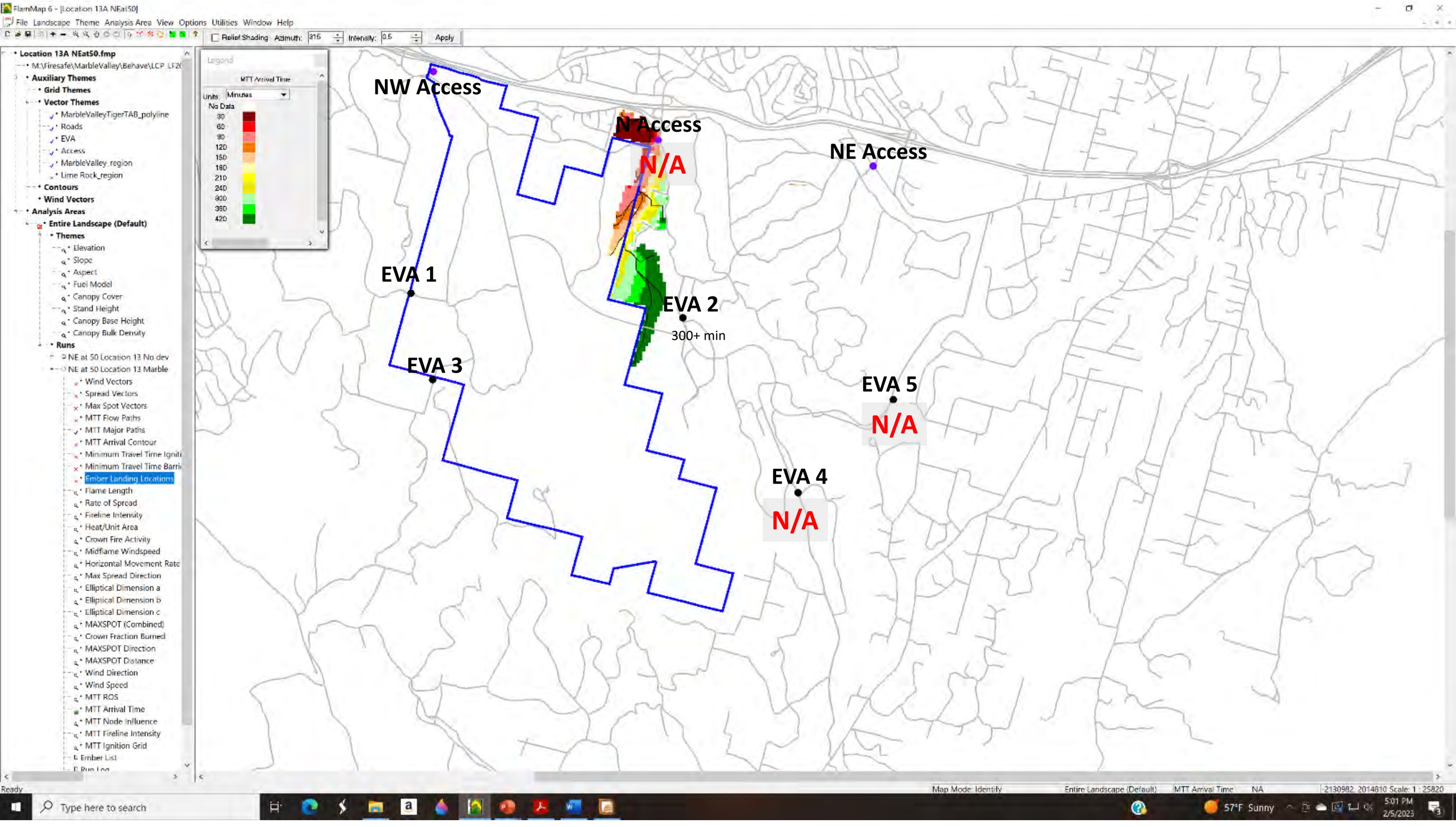
Location 13 N wind at 50 mph Both– Scn 13D



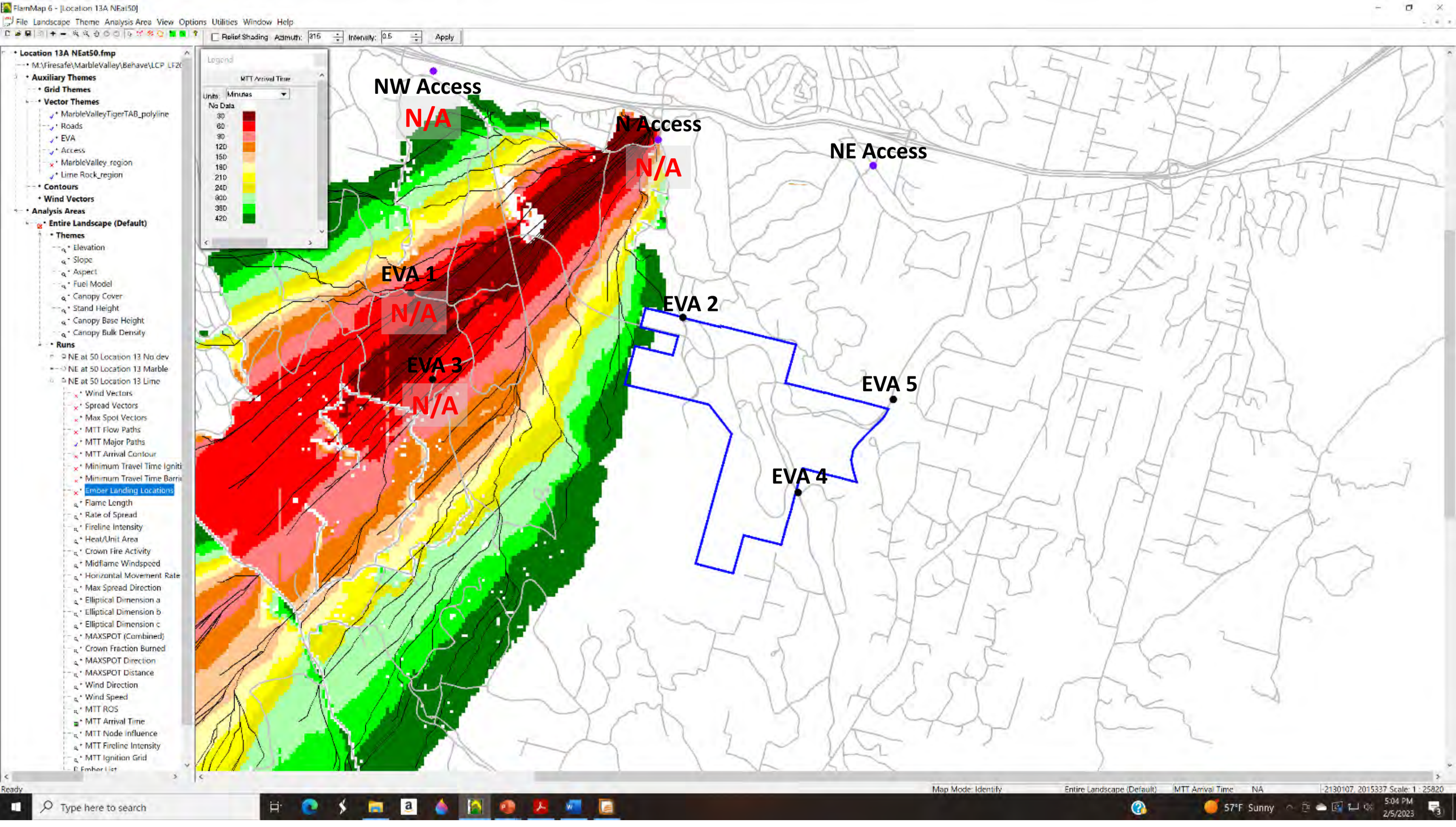
Location 13 NE wind at 50 mph No Dev – Scn 13E



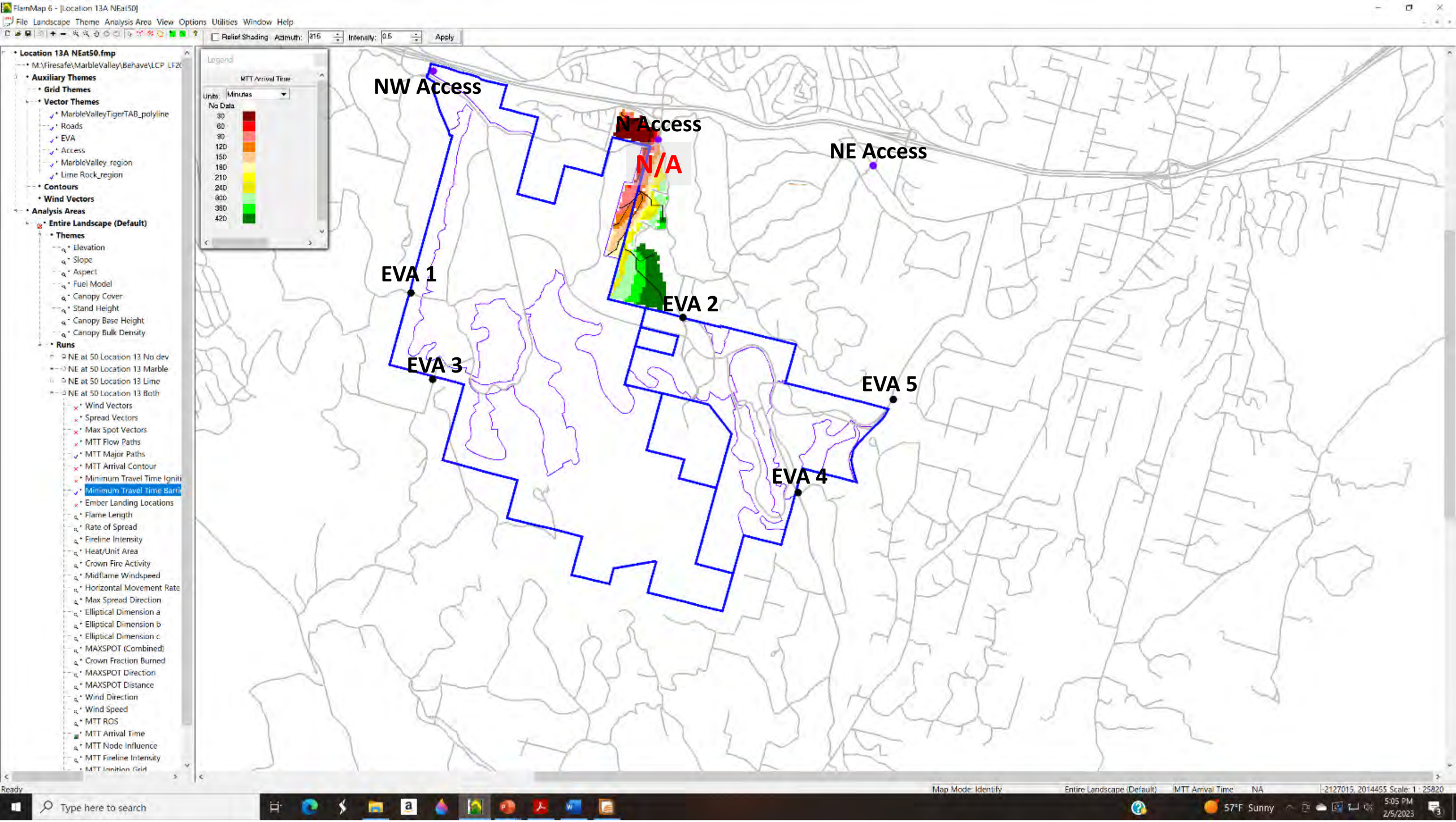
Location 13 NE wind at 50 mph Marble – Scn 13F



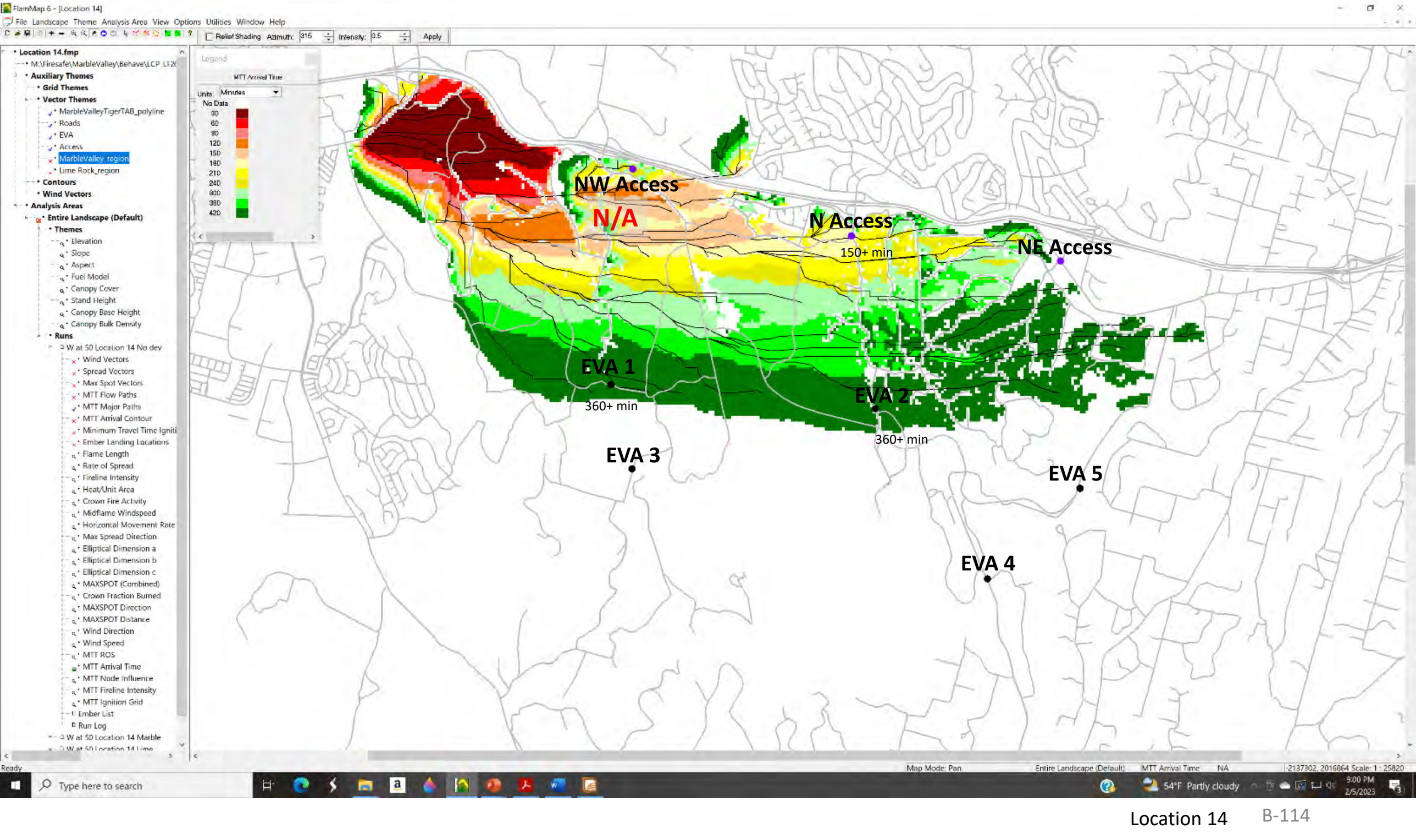
Location 13 NE wind at 50 mph Lime – Scn 13G



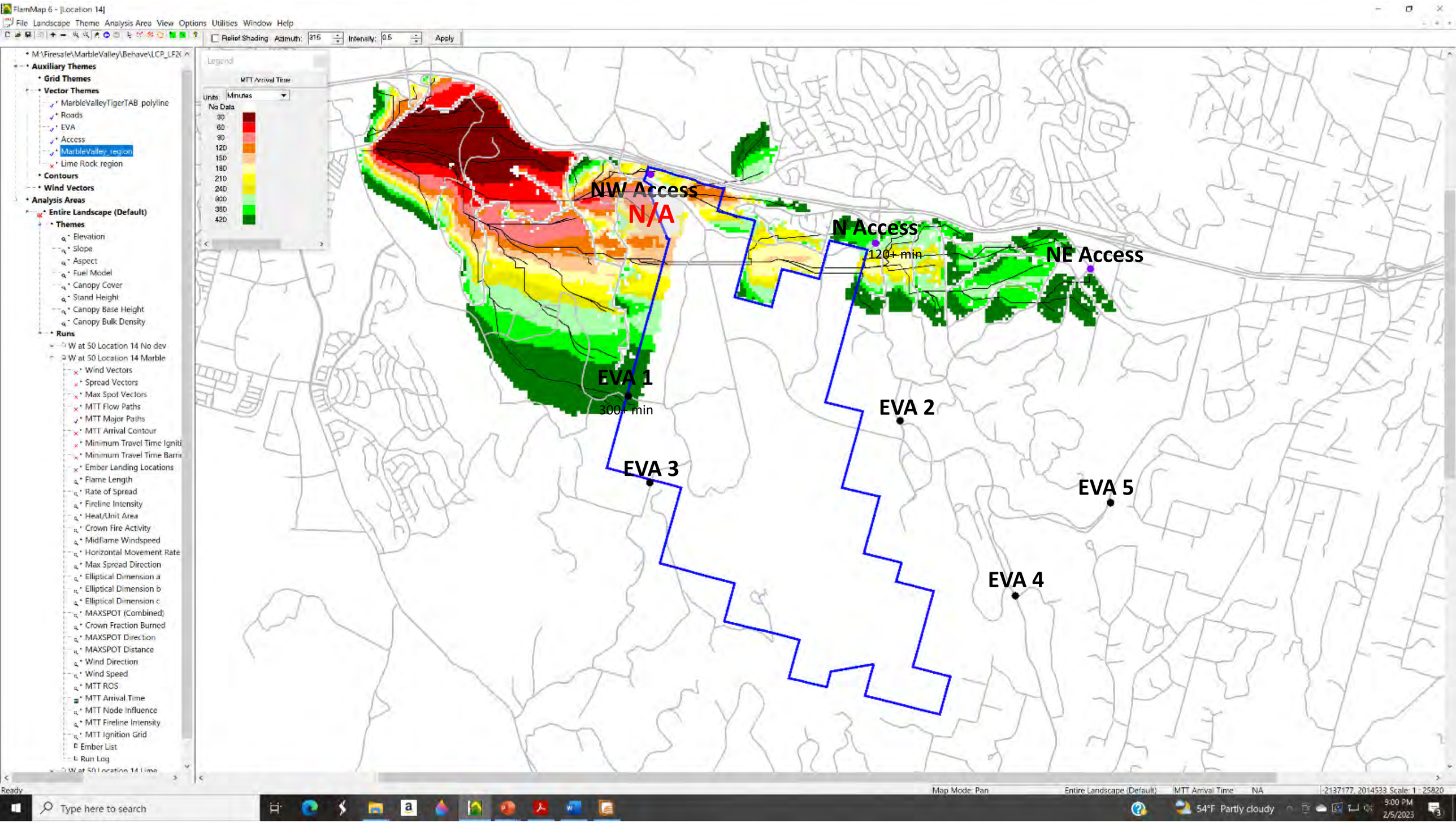
Location 13 NE wind at 50 mph Both – Scn 13H



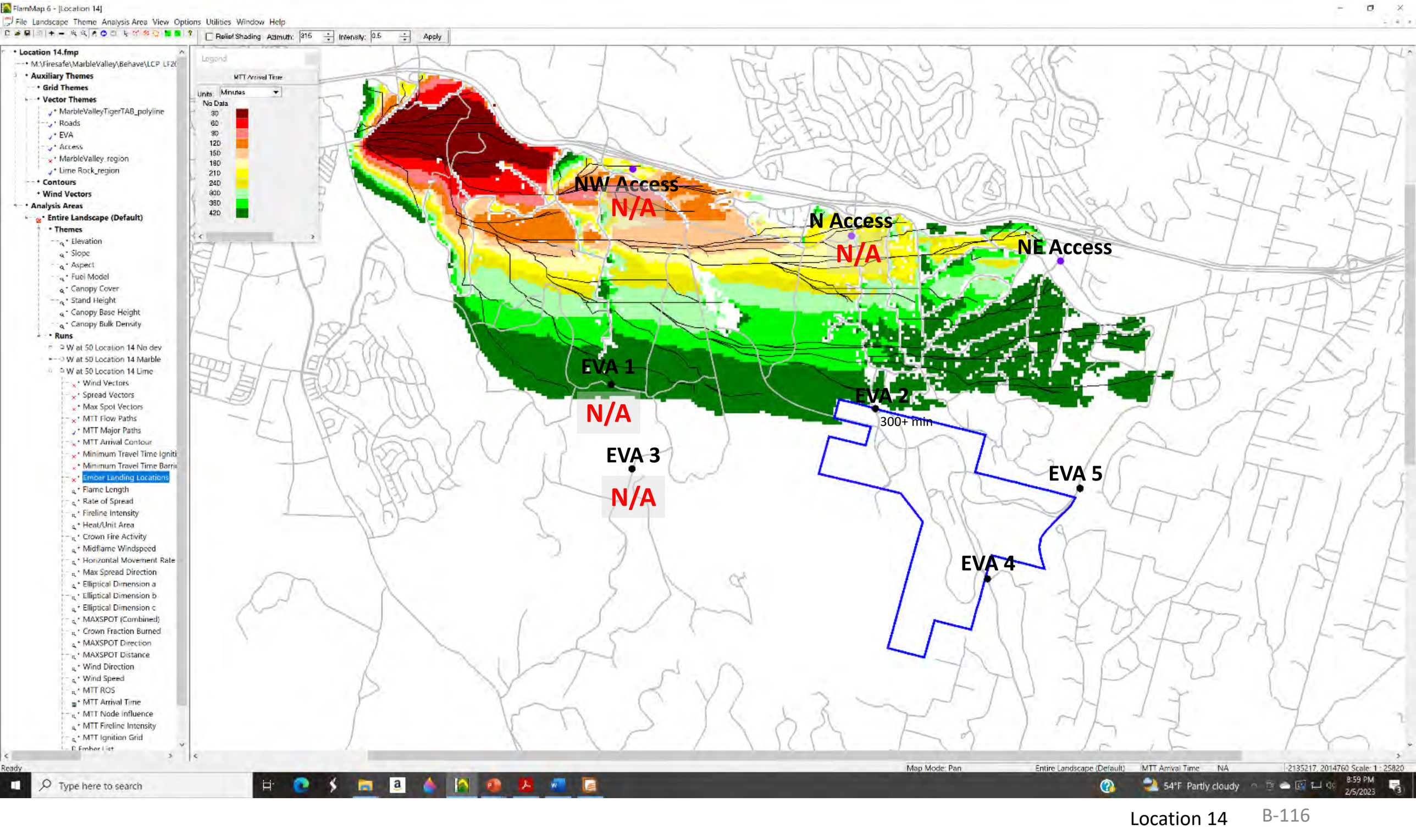
Location 14 W wind at 50 mph No Dev – Scn 14A



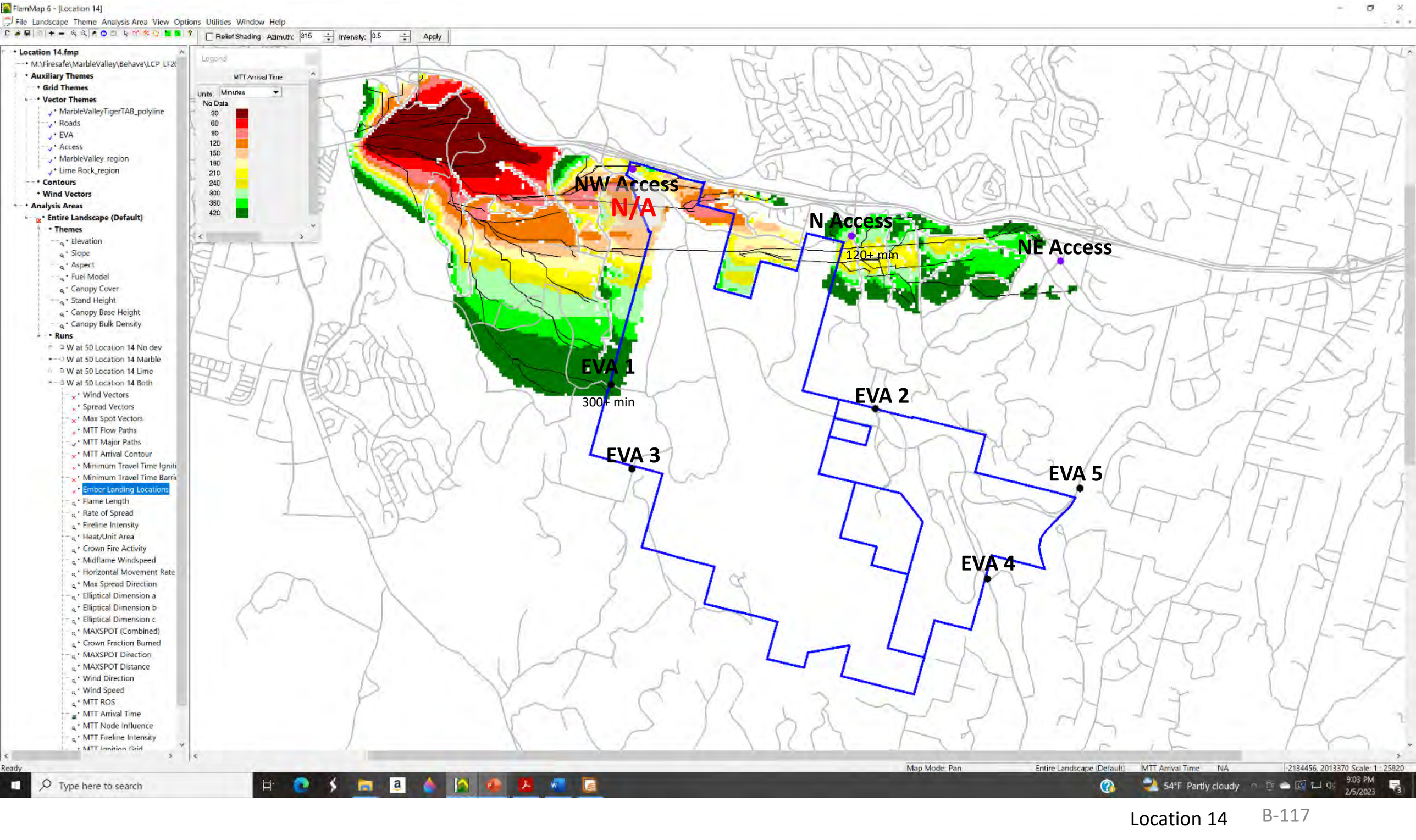
Location 14 W wind at 50 mph Marble – Scn 14B



Location 14 W wind at 50 mph Lime – Scn 14C

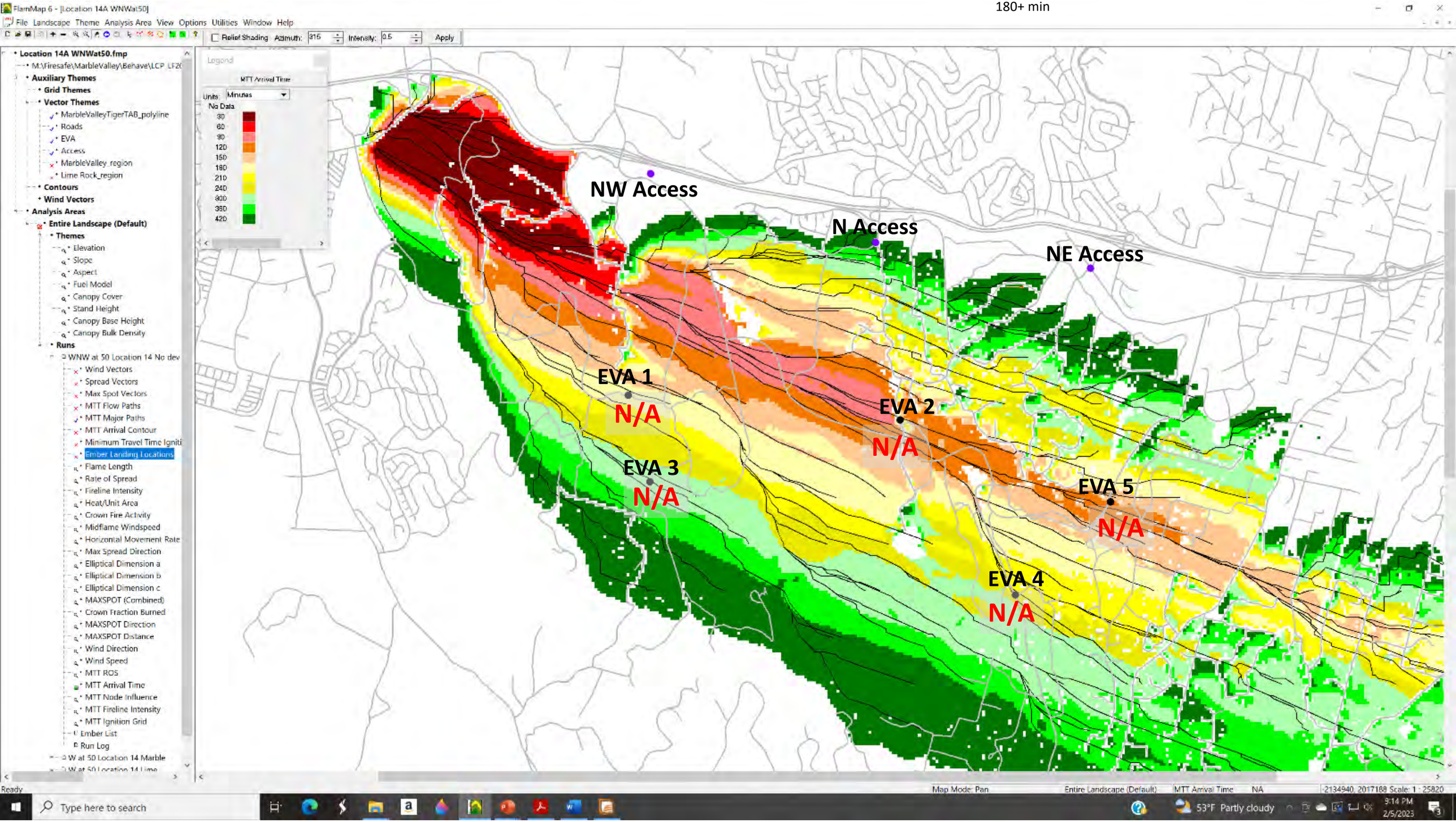


Location 14 W wind at 50 mph Both – Scn 14D

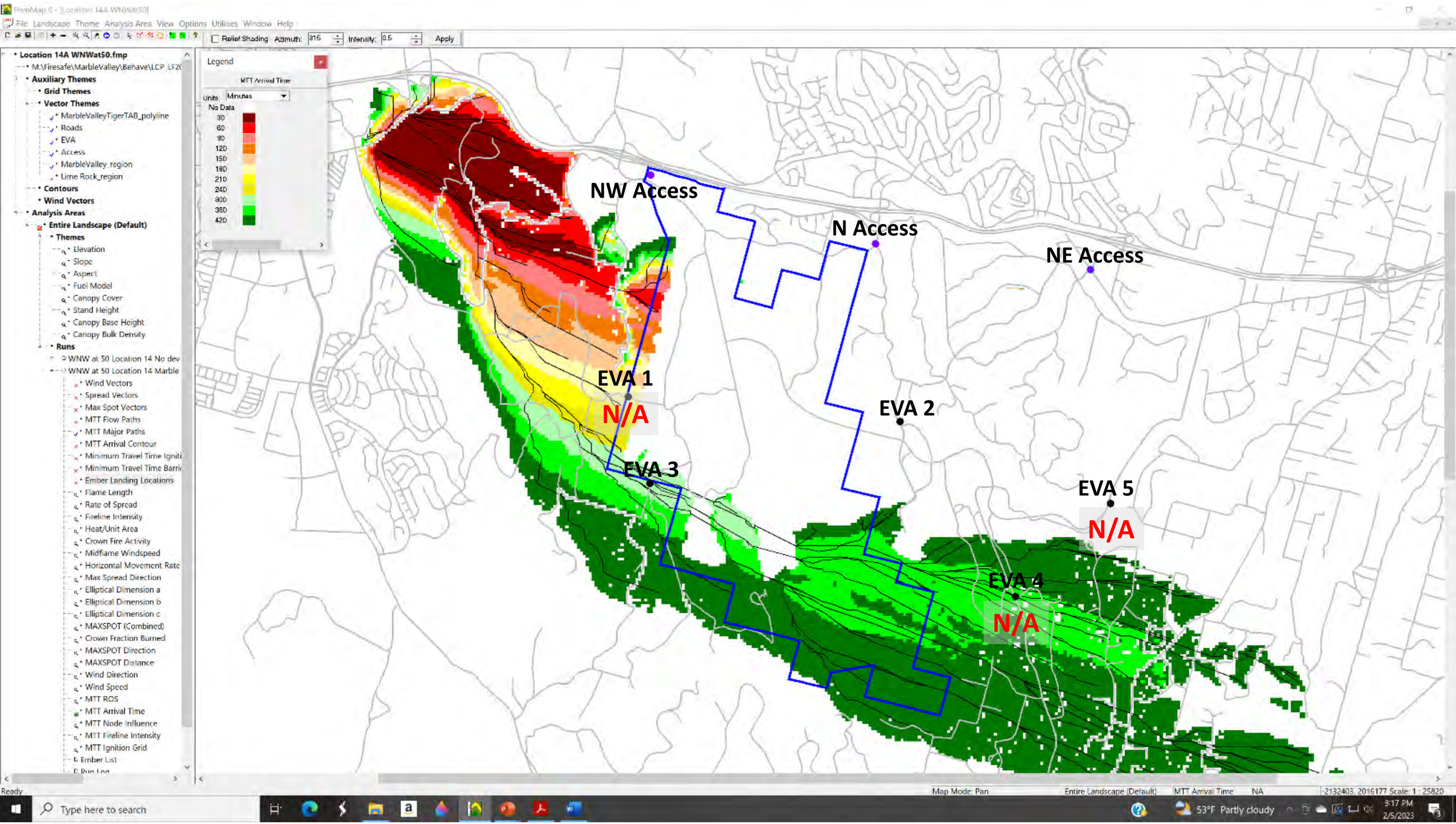


Location 14 WNW wind at 50 mph No Dev – Scn 14E

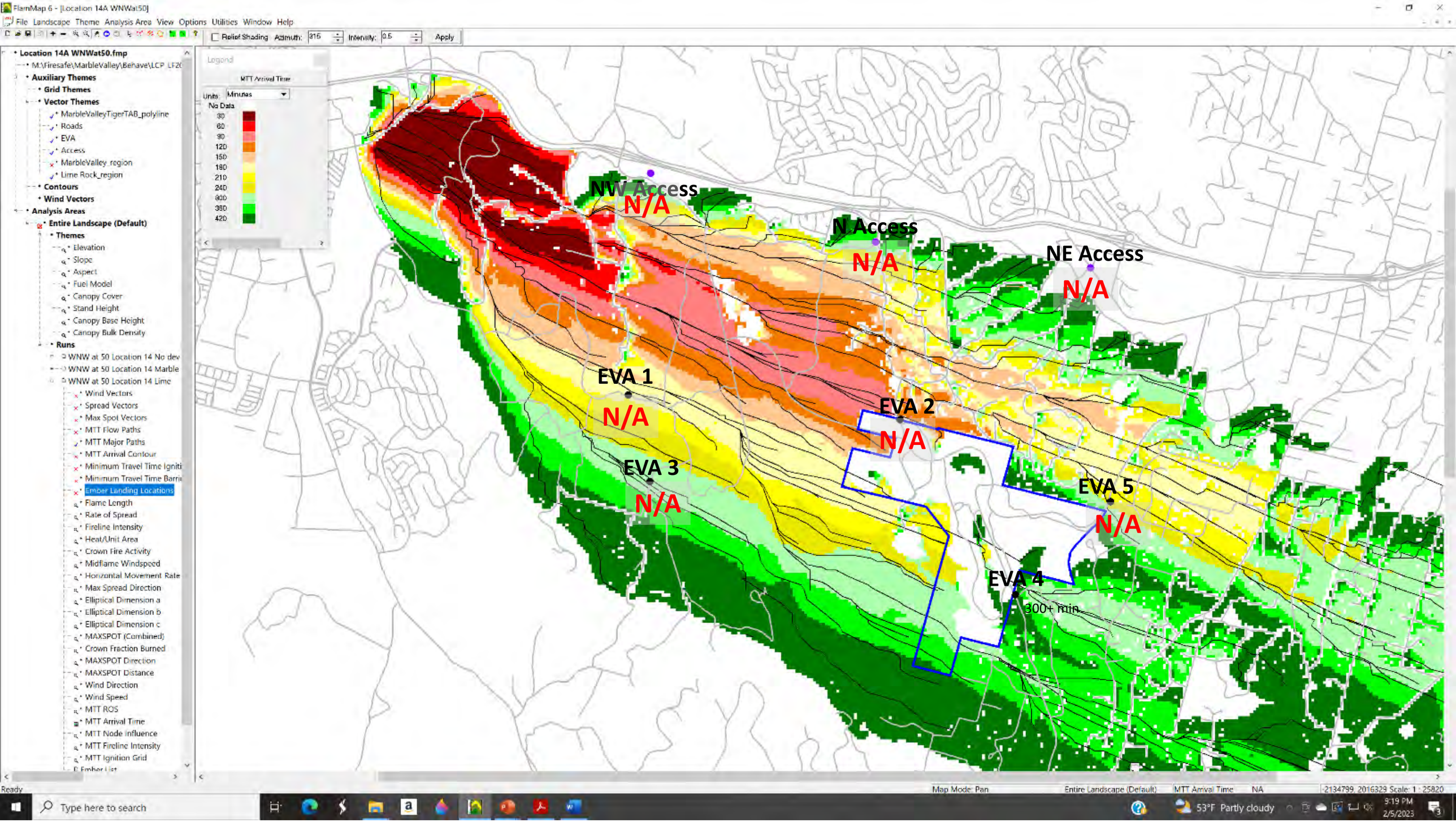
180+ min



Location 14 WNW wind at 50 mph Marble – Scn 14F

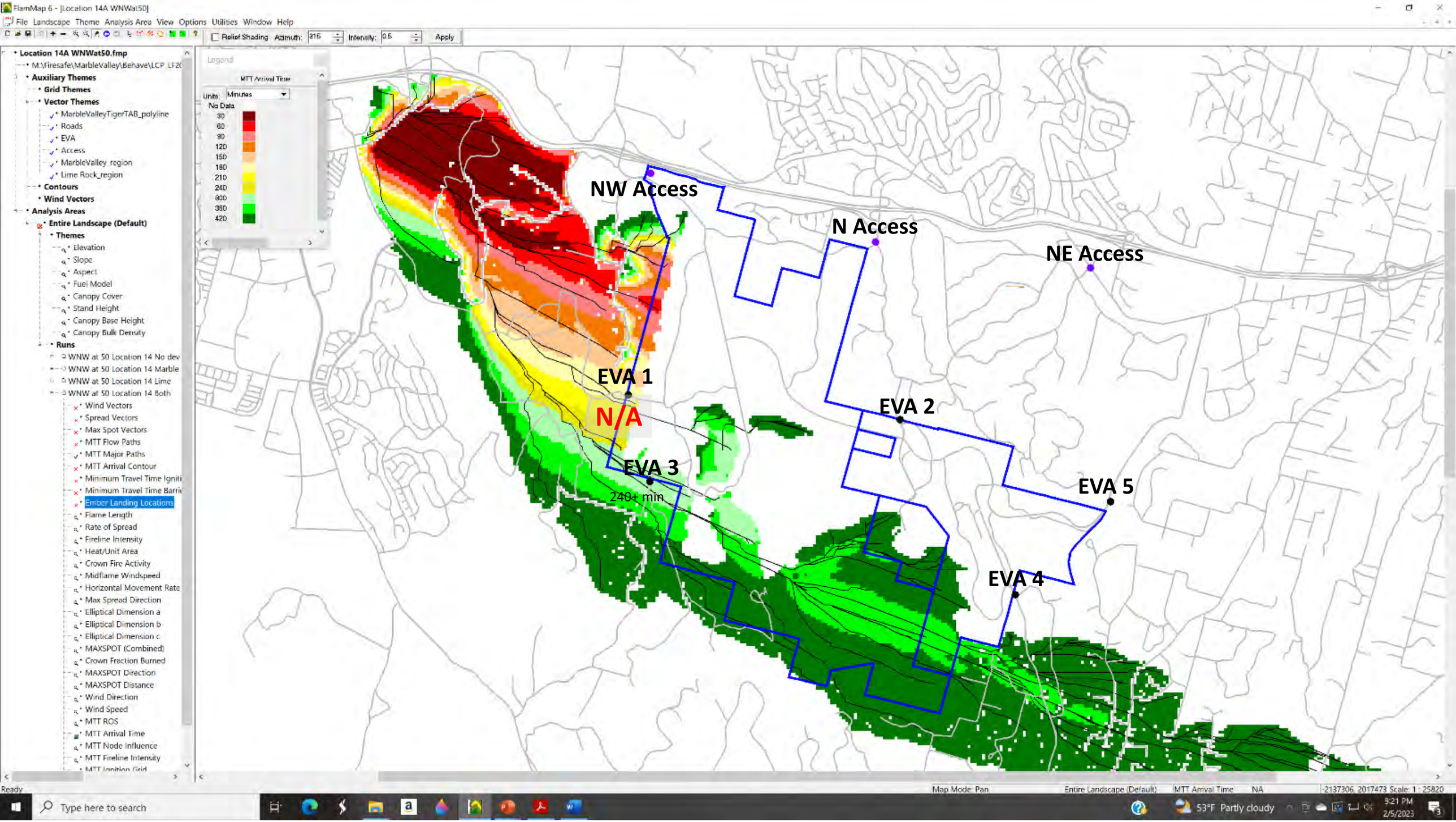


Location 14 WNW wind at 50 mph Lime – Scn 14G

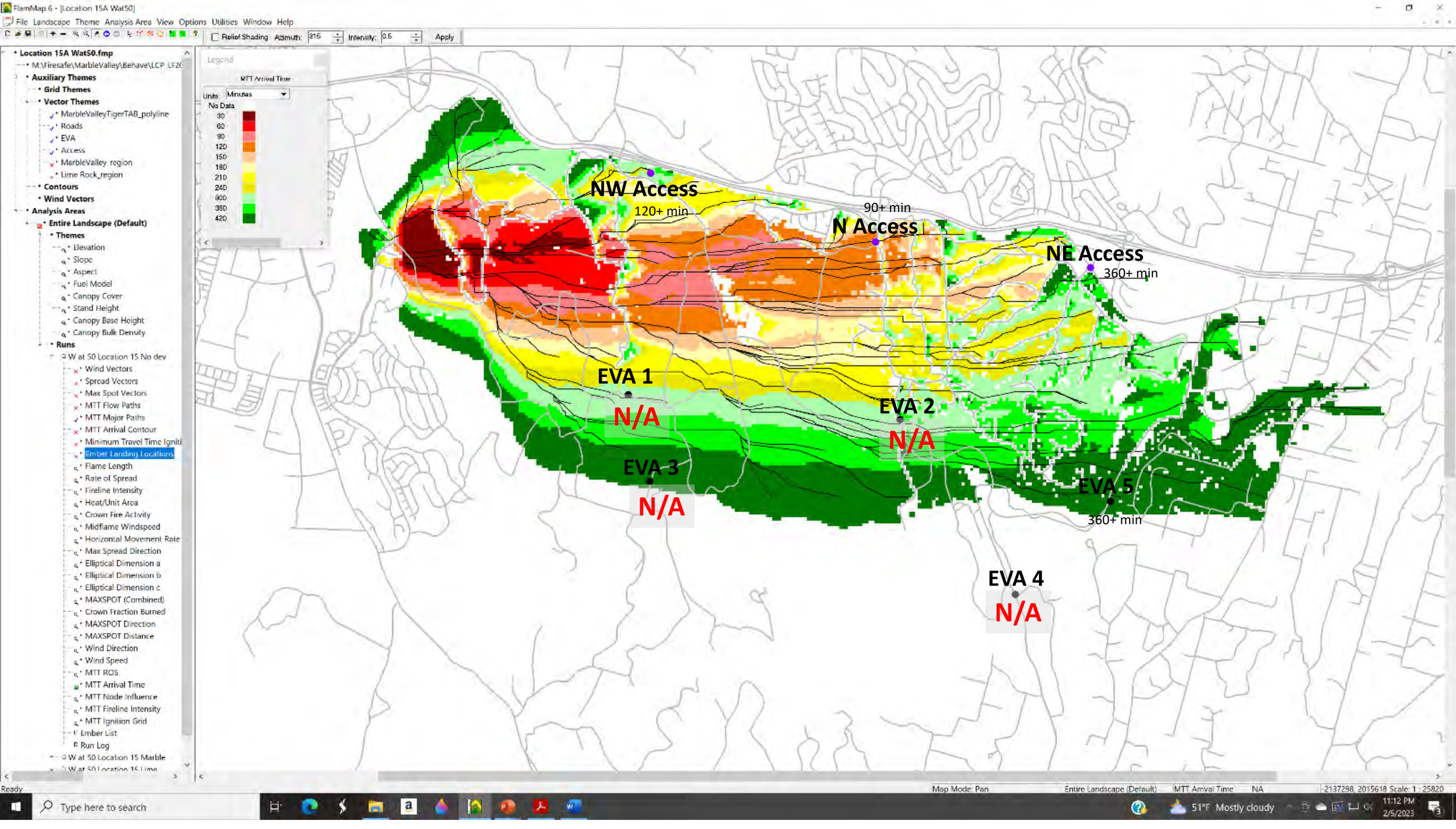


Location 14 WNW wind at 50 mph Both– Scn 14H

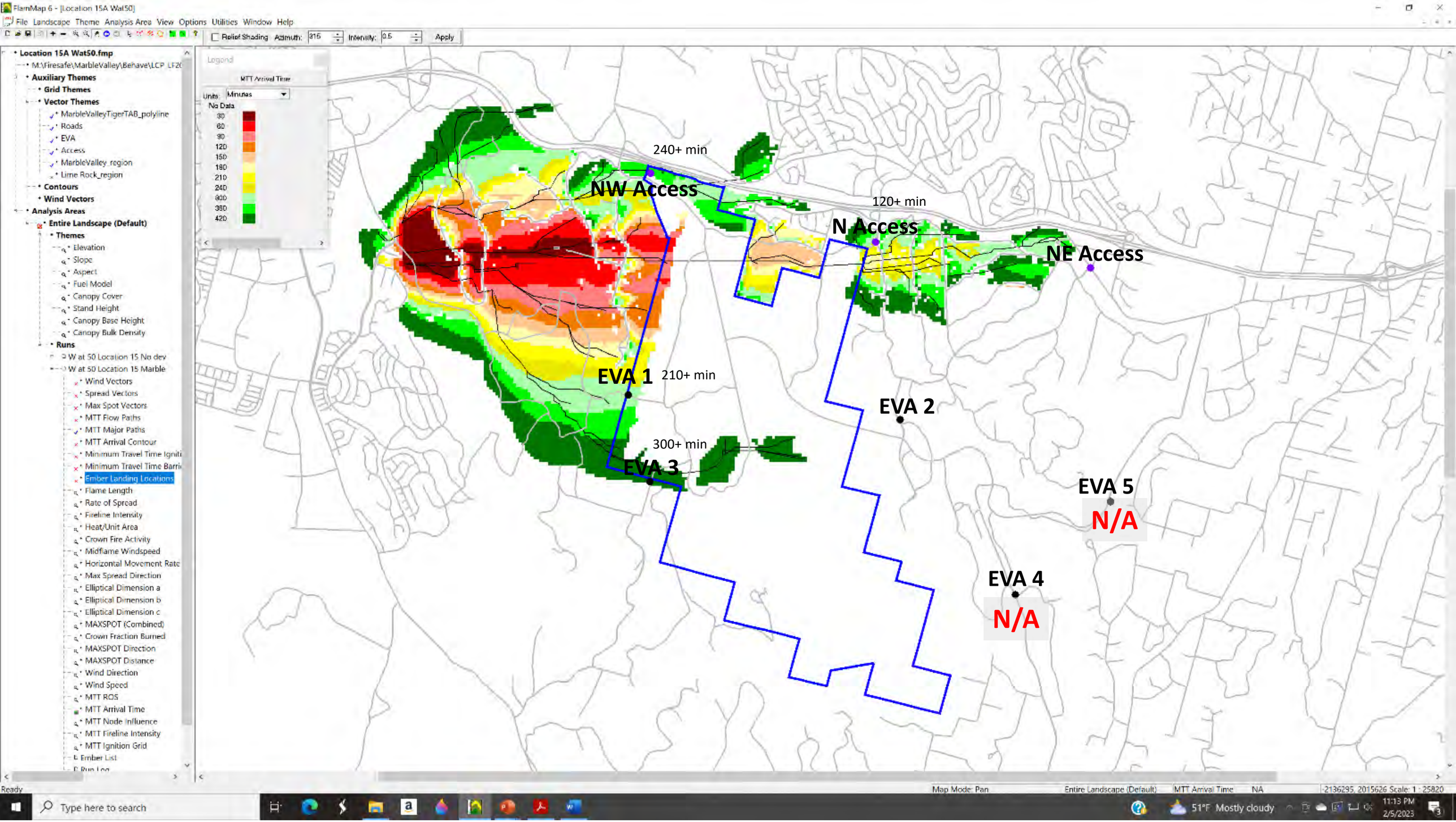
120+ min



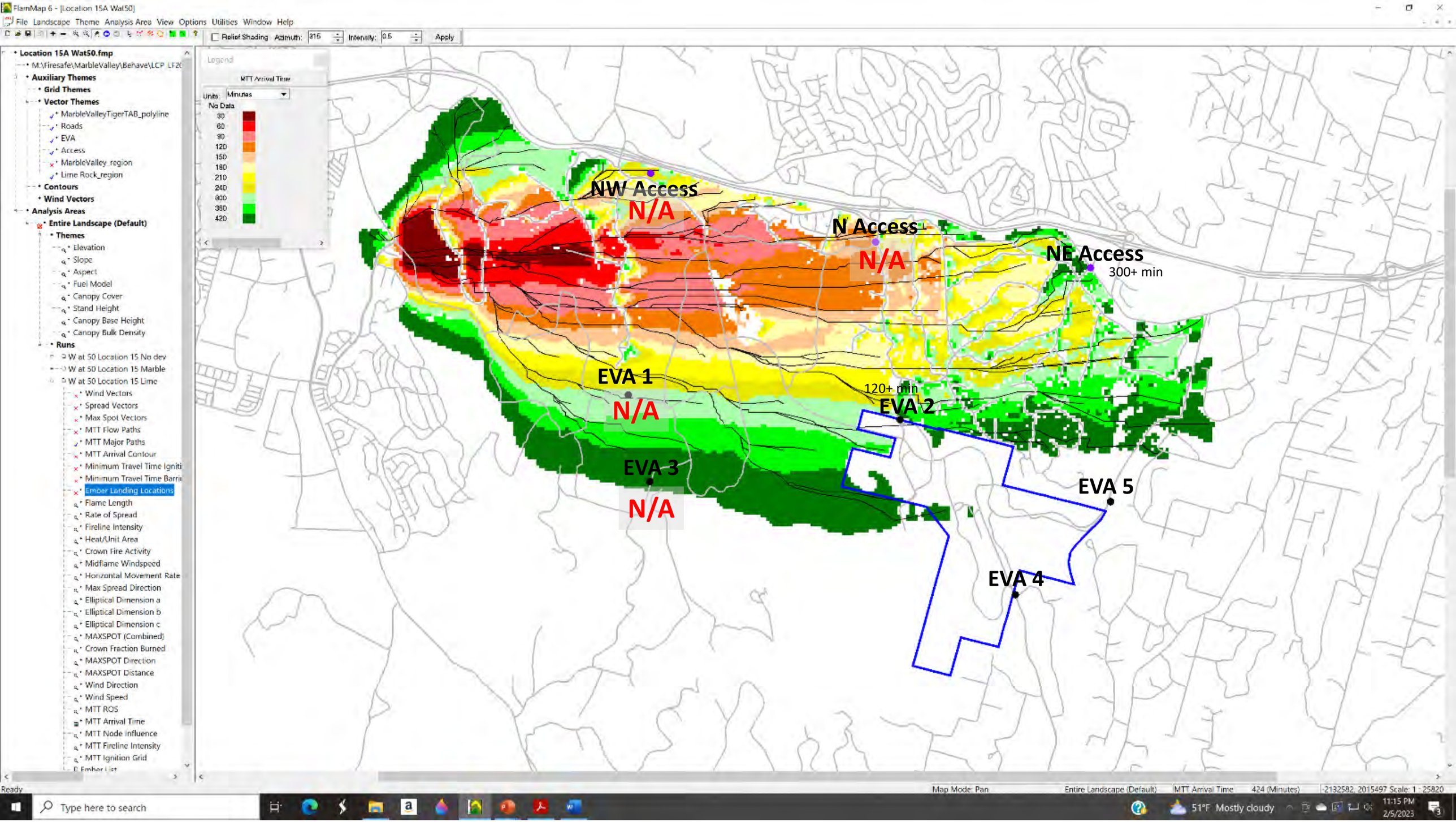
Location 15 W wind at 50 mph No Dev – Scn 15A



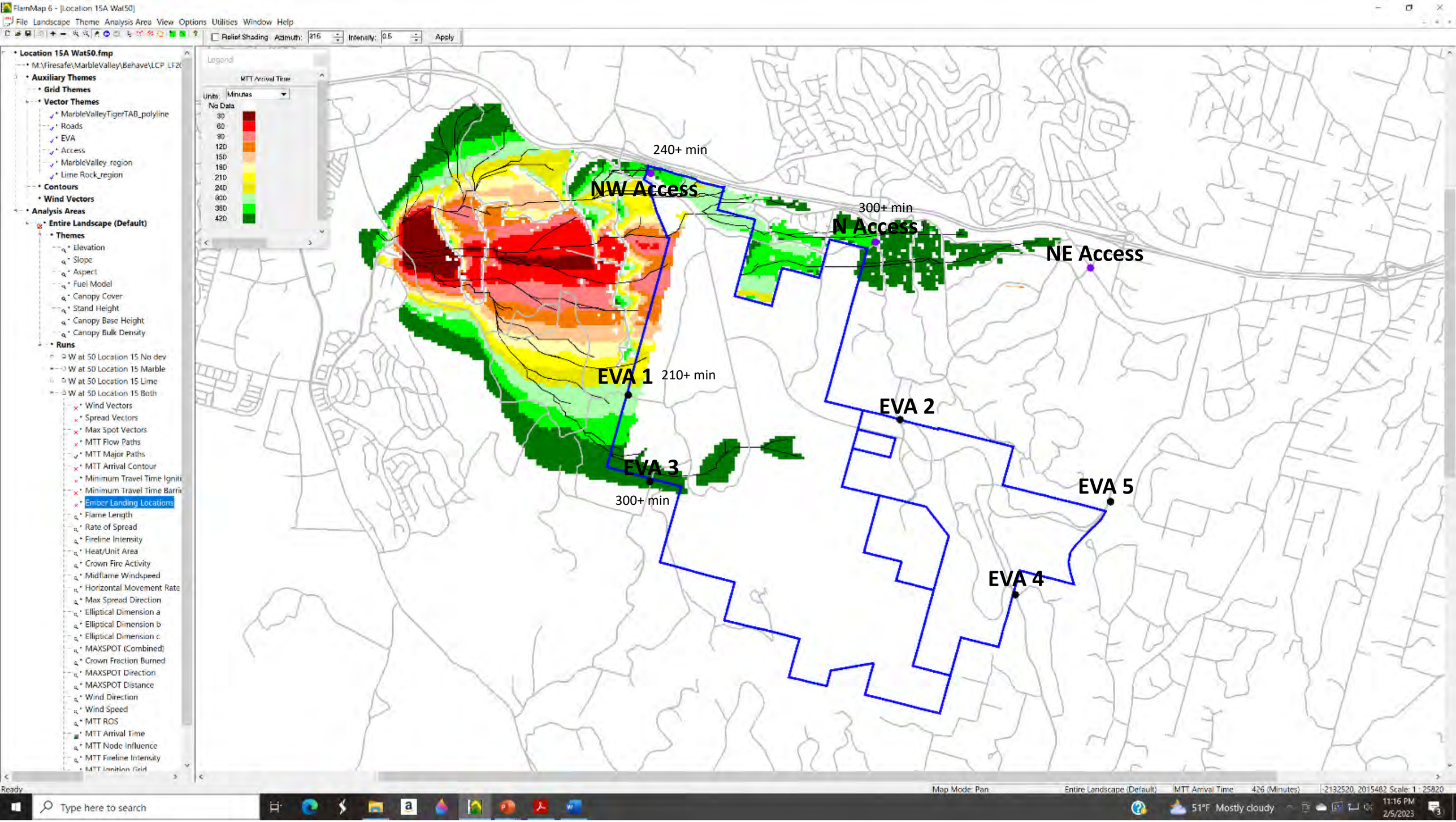
Location 15 W wind at 50 mph Marble – Scn 15B



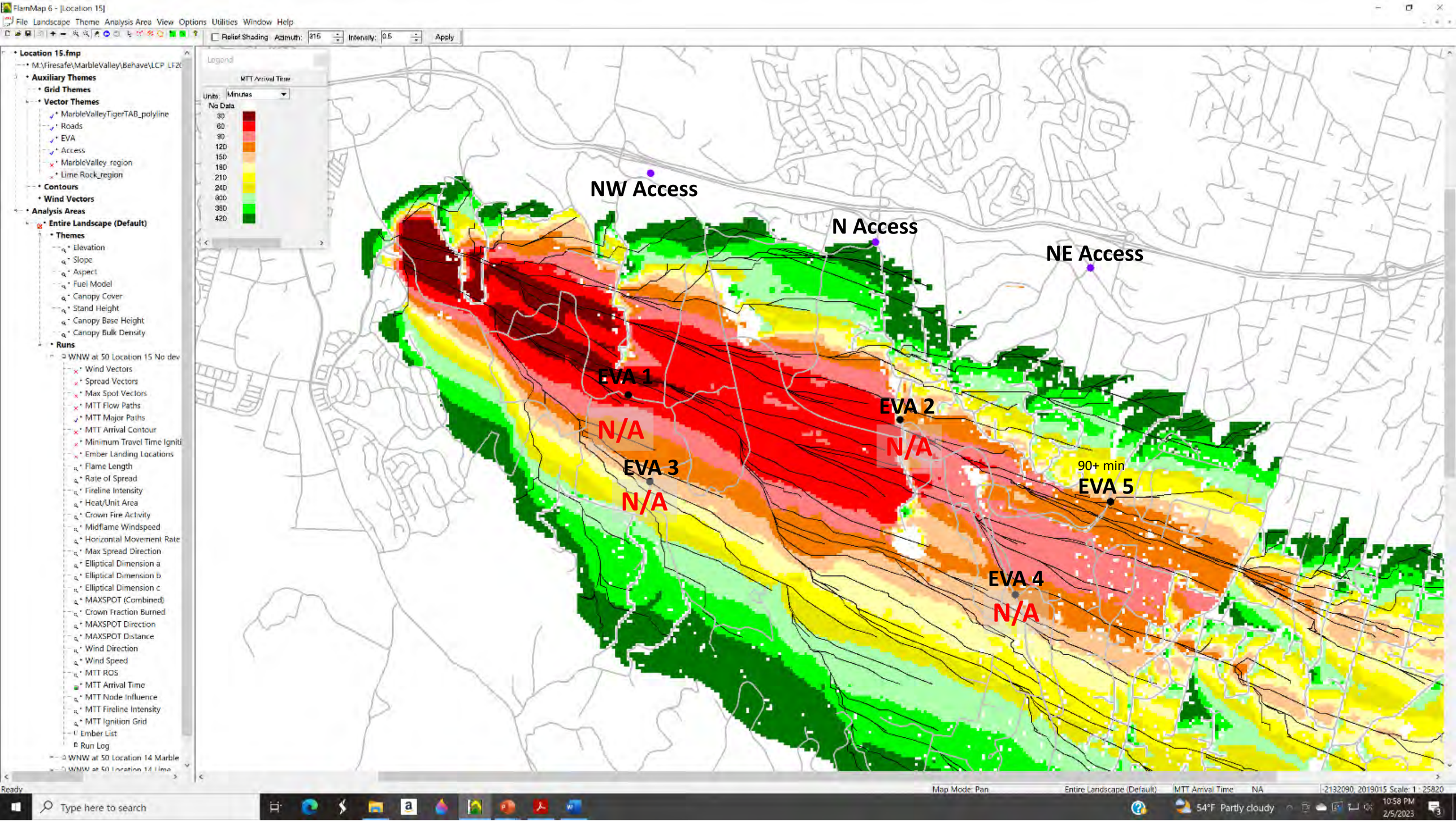
Location 15 W wind at 50 mph Lime – Scn 15C



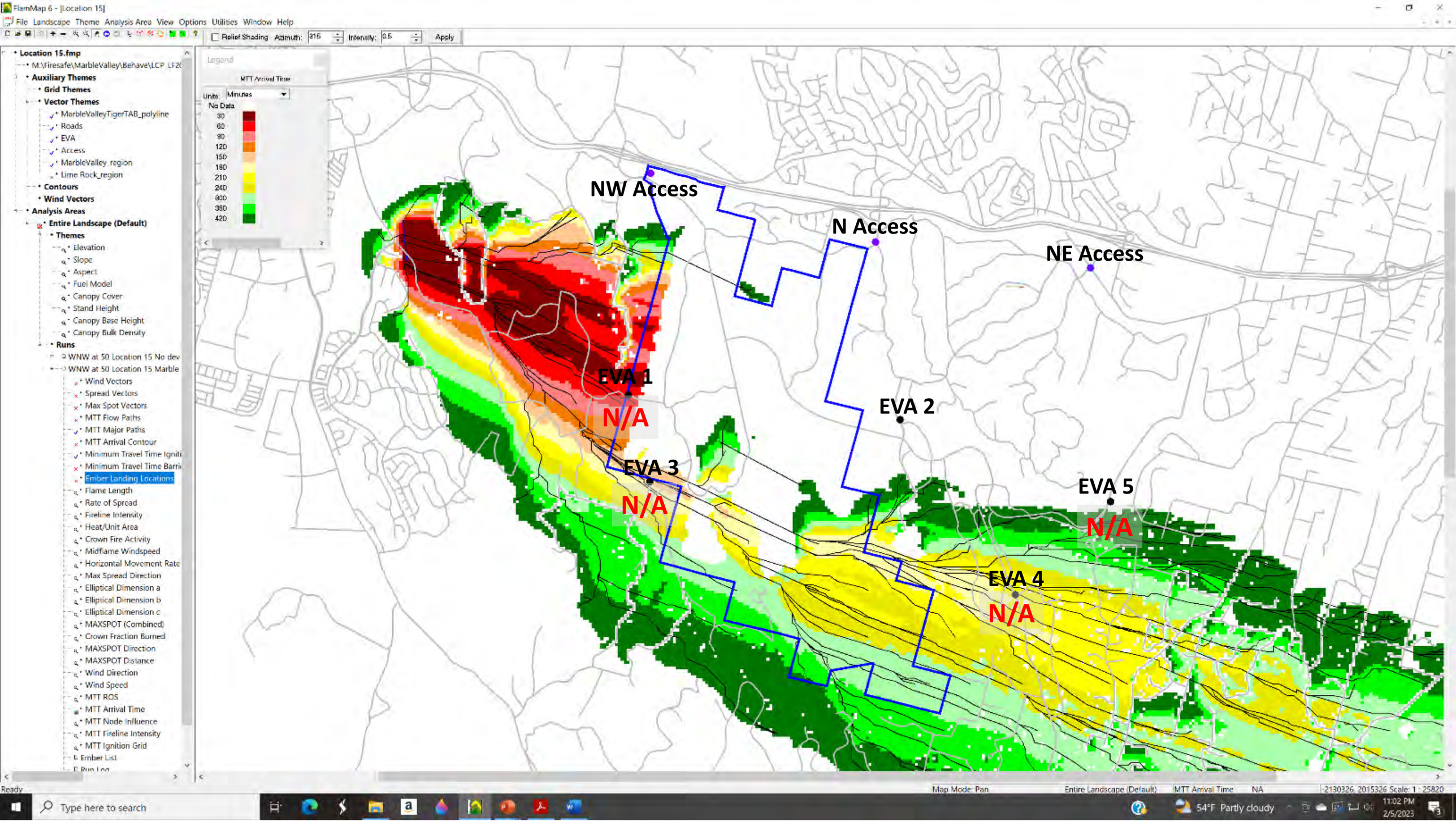
Location 15 W wind at 50 mph Both– Scn 15D



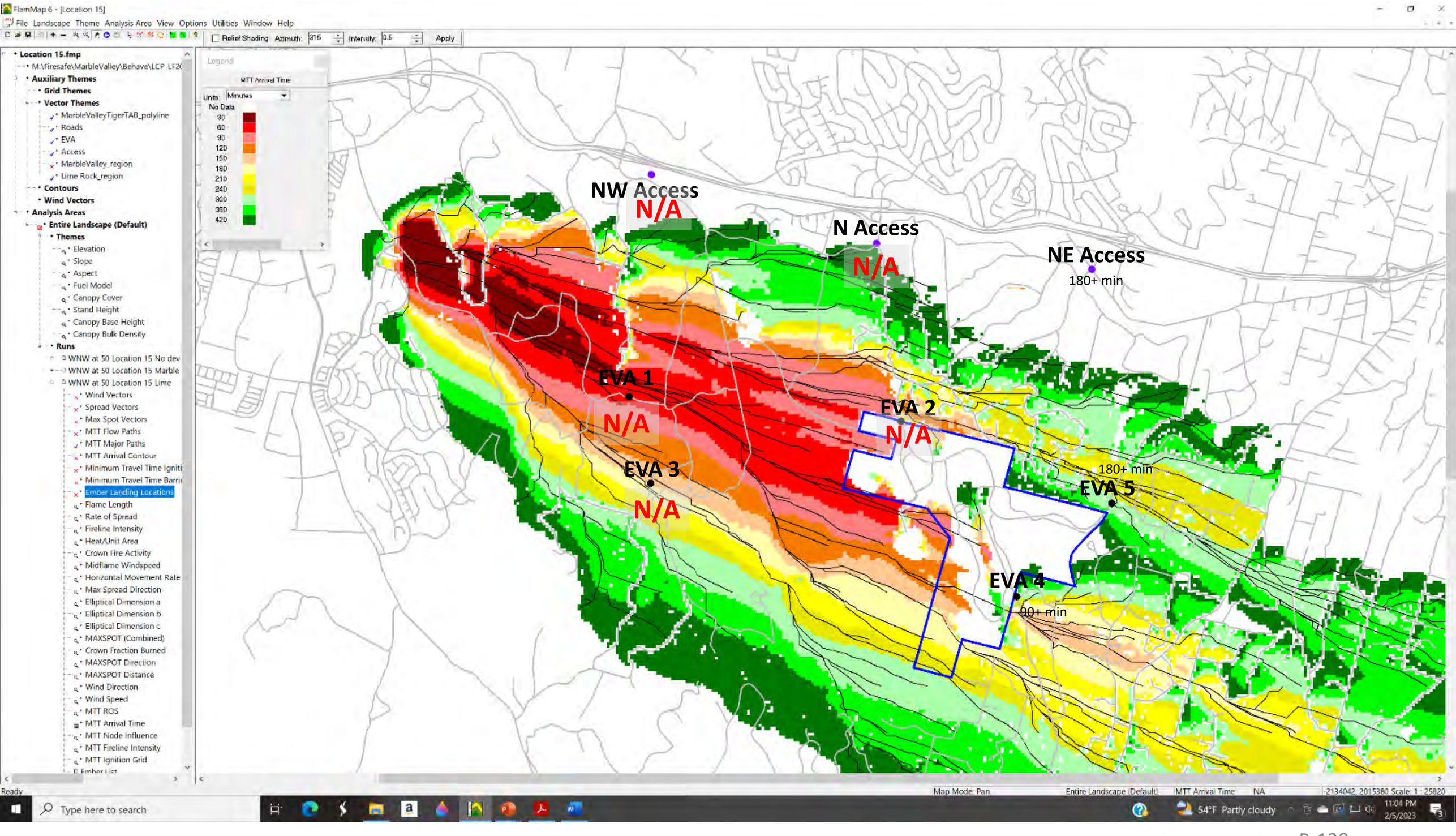
Location 15 WNW wind at 50 mph No Dev – Scn 15E



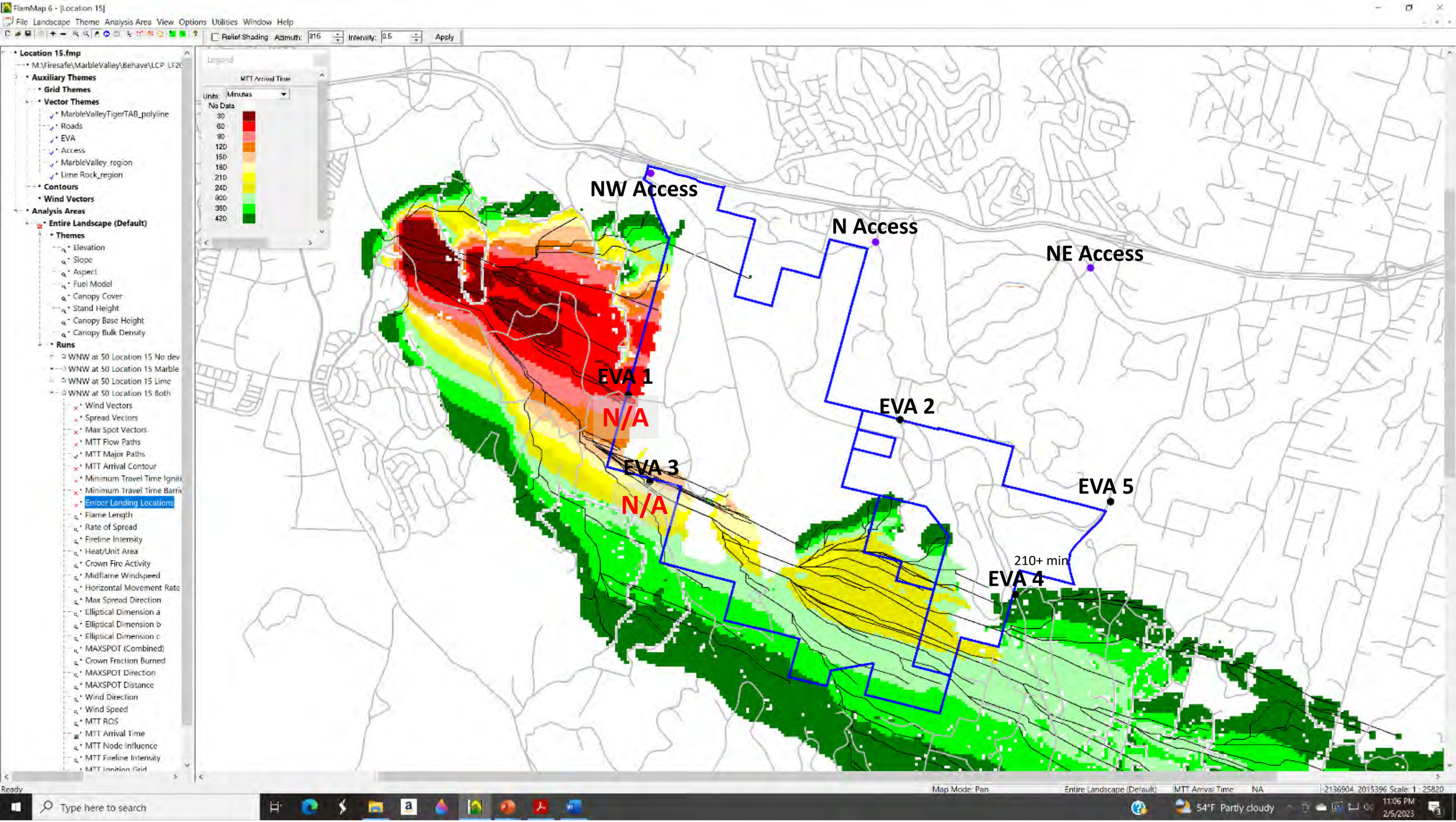
Location 15 WNW wind at 50 mph No Dev – Scn 15F



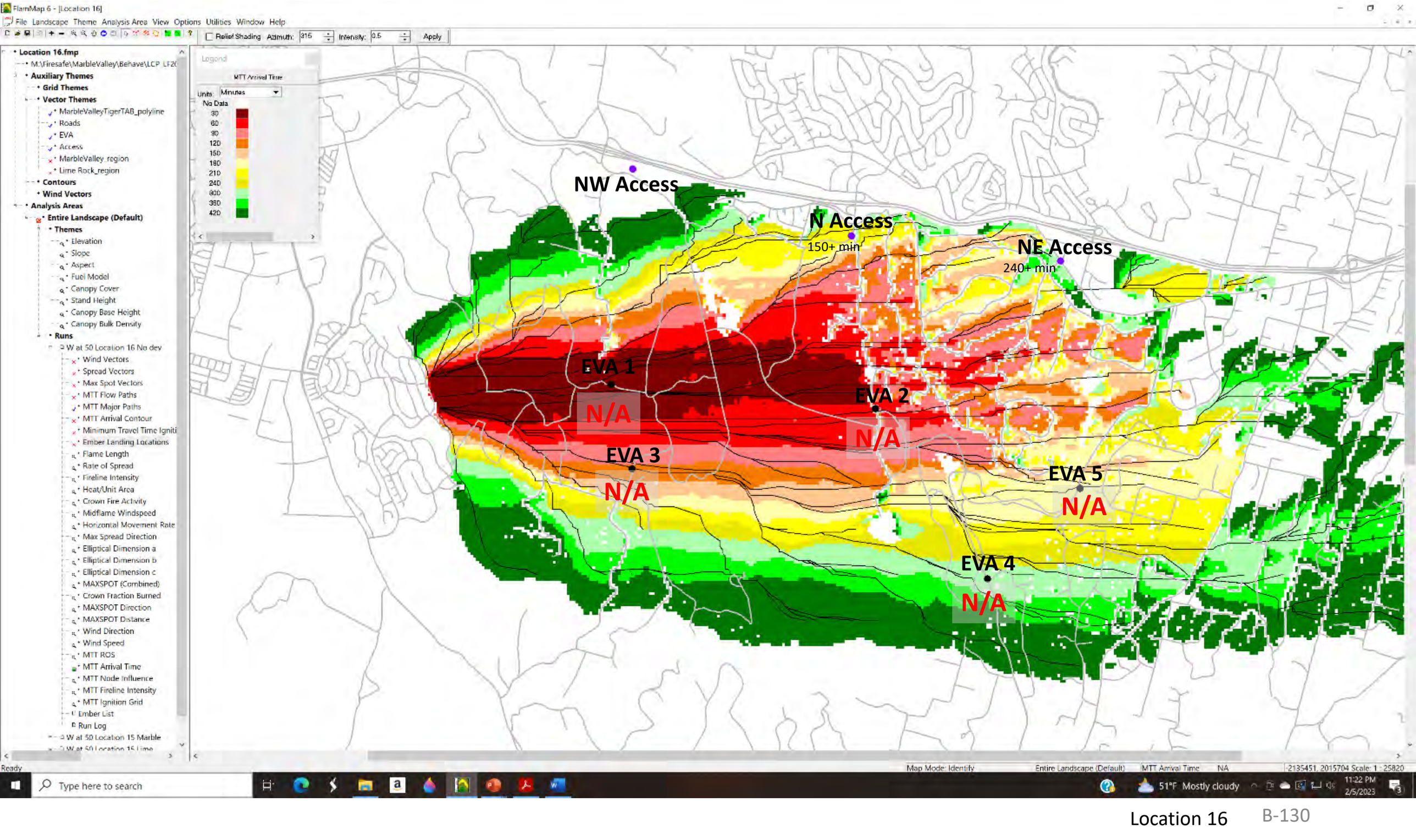
Location 15 WNW wind at 50 mph No Dev – Scn 15G



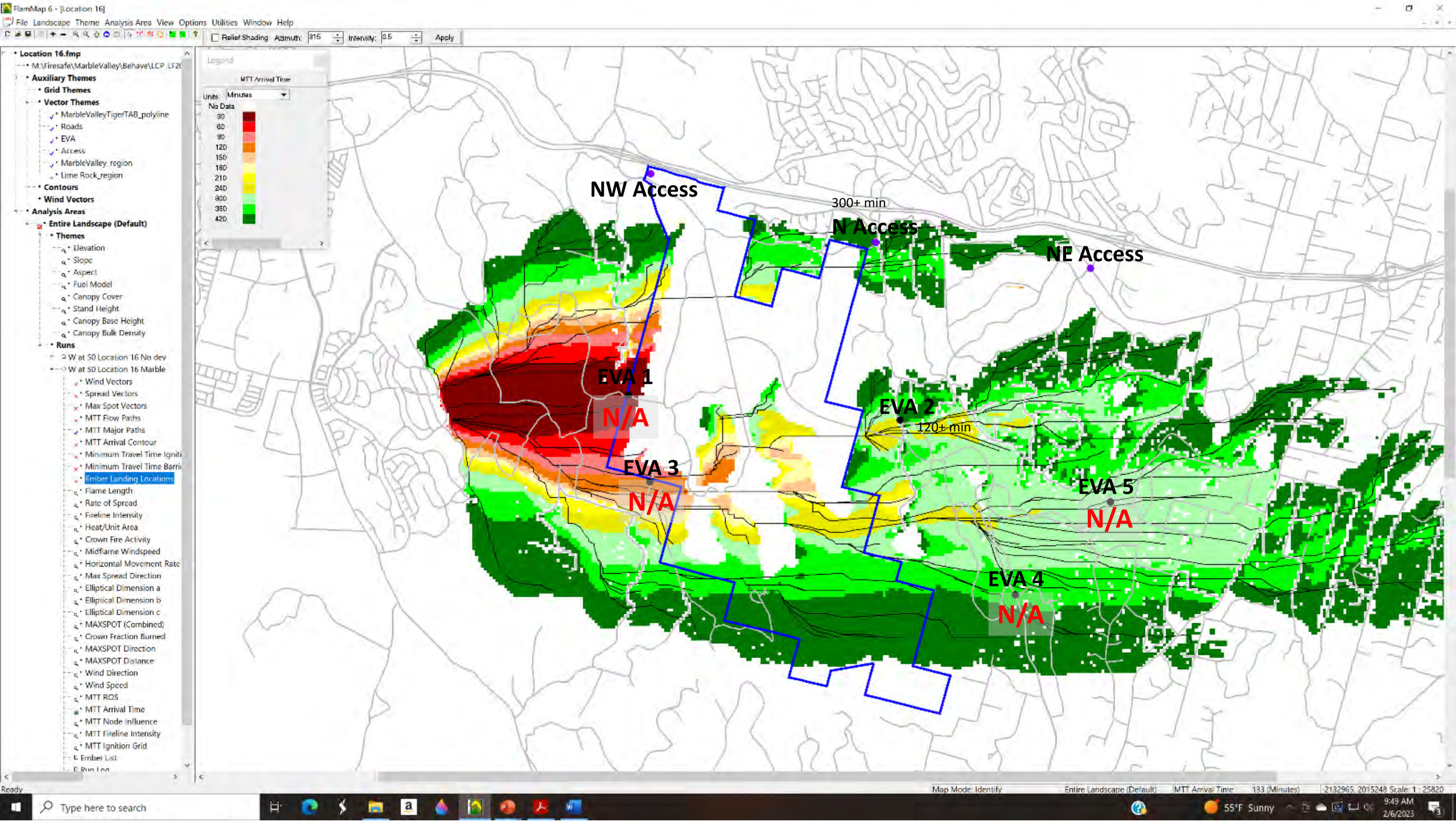
Location 15 WNW wind at 50 mph No Dev – Scn 15H



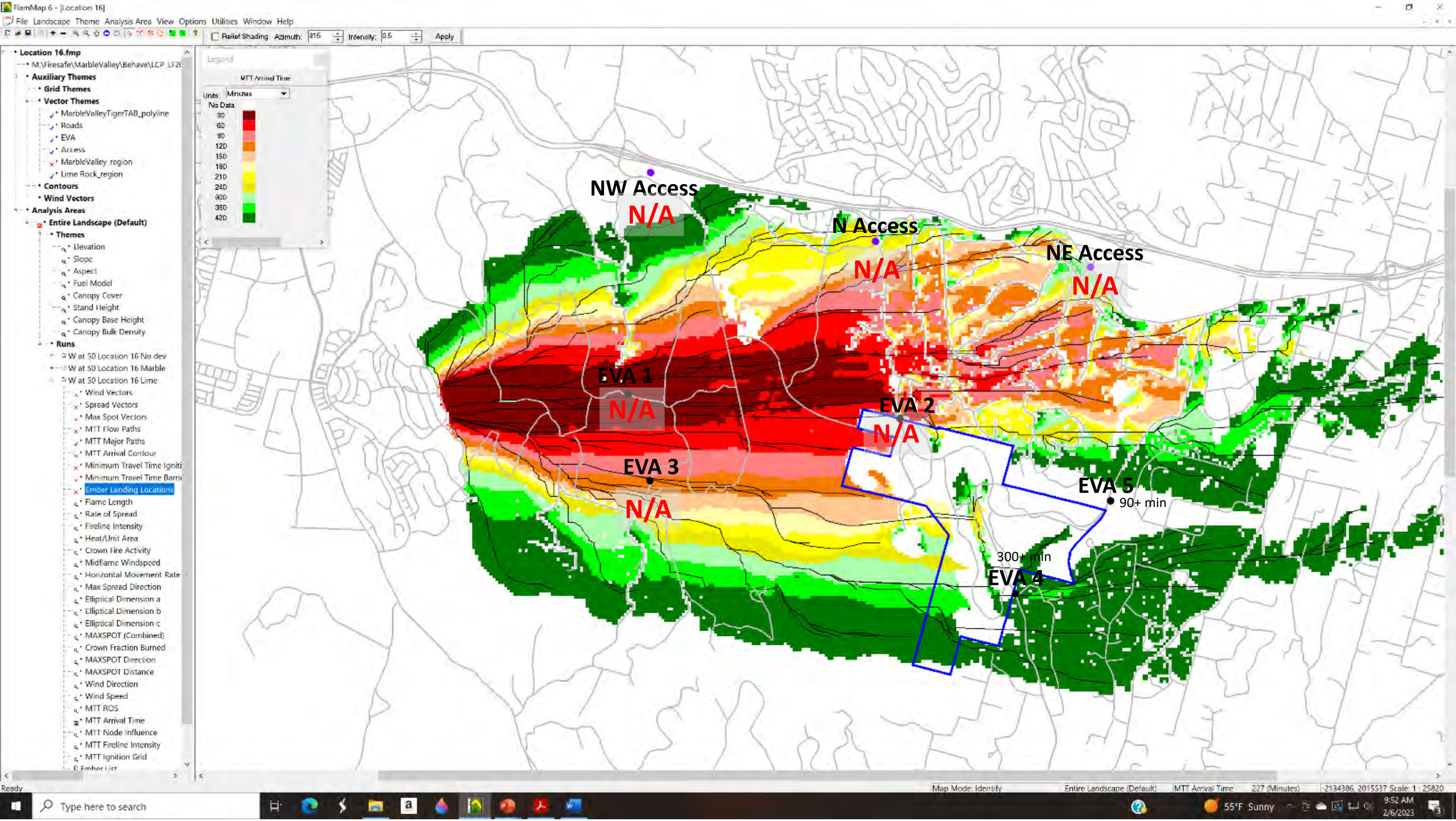
Location 16 W wind at 50 mph No Dev – Scn 16A



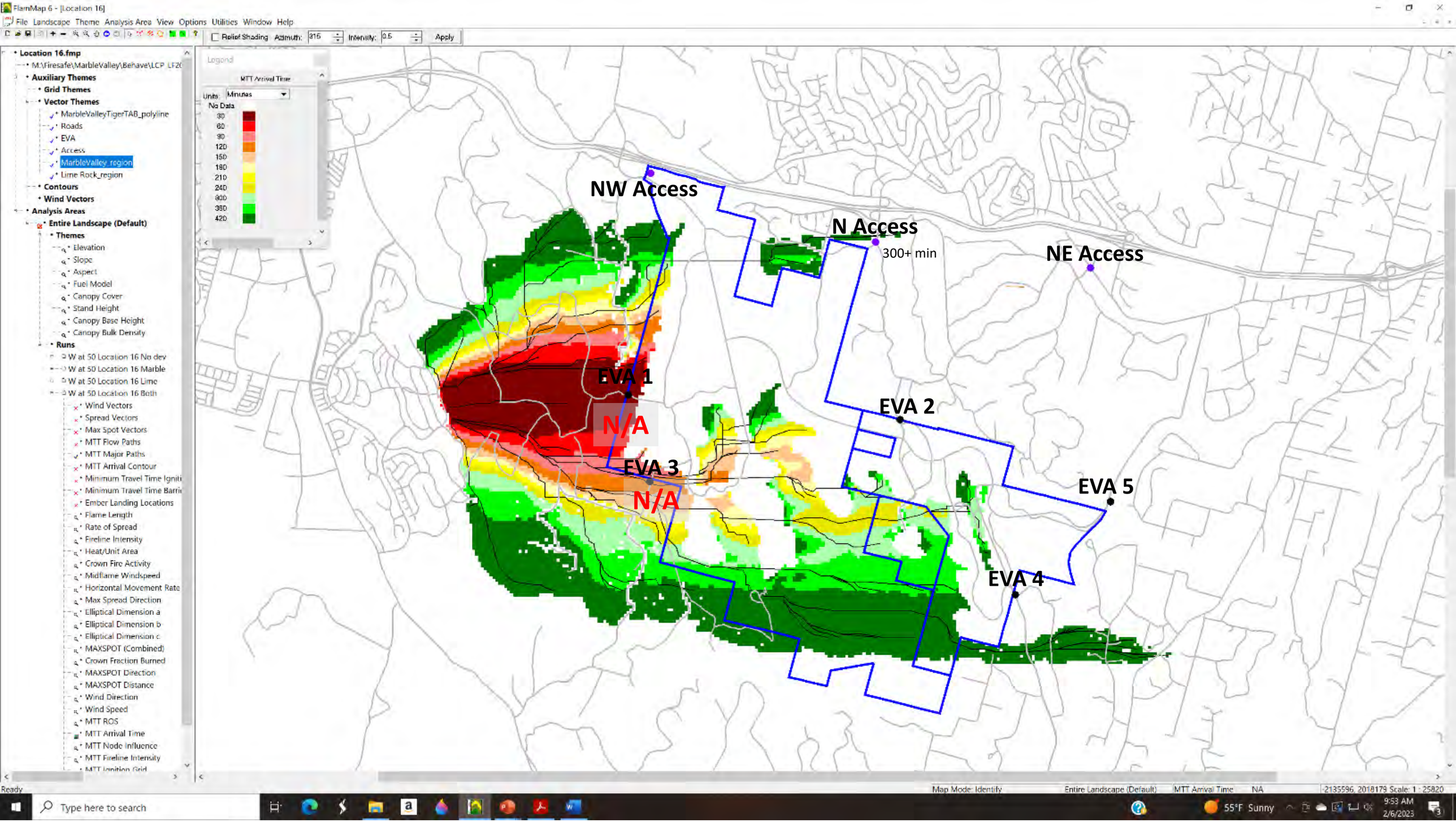
Location 16 W wind at 50 mph Marble – Scn 16B



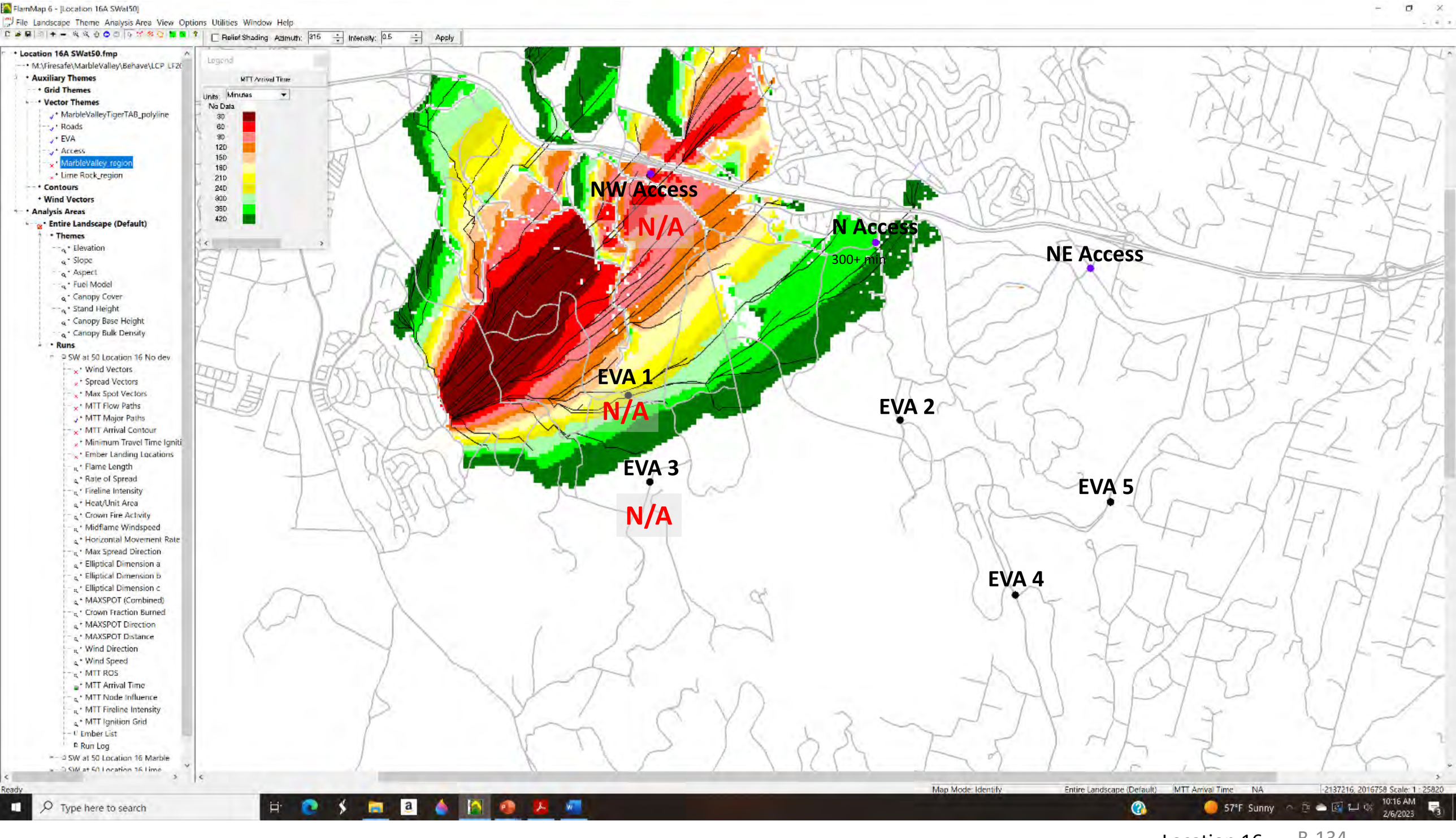
Location 16 W wind at 50 mph Lime – Scn 16C



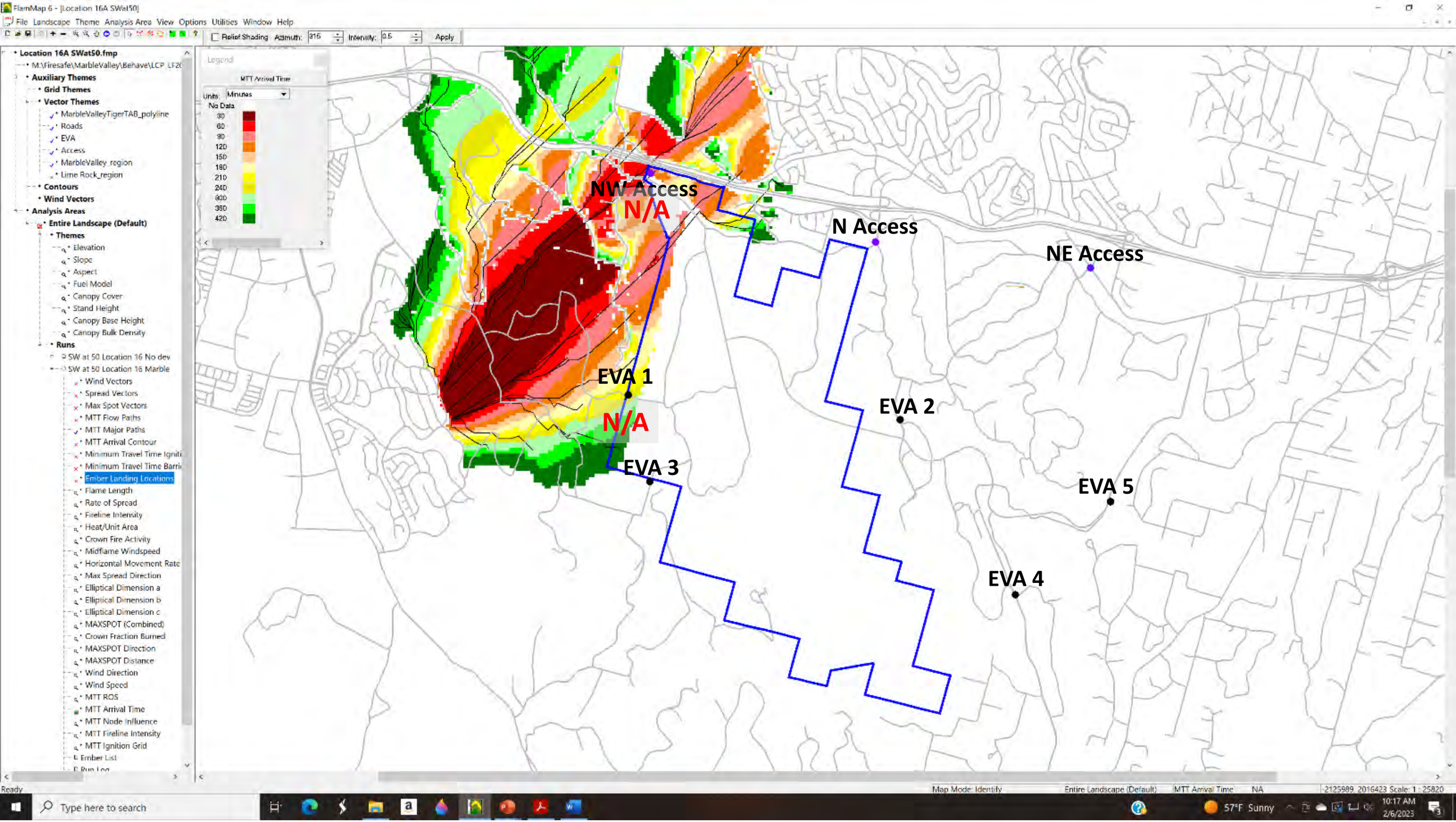
Location 16 W wind at 50 mph Both – Scn 16D



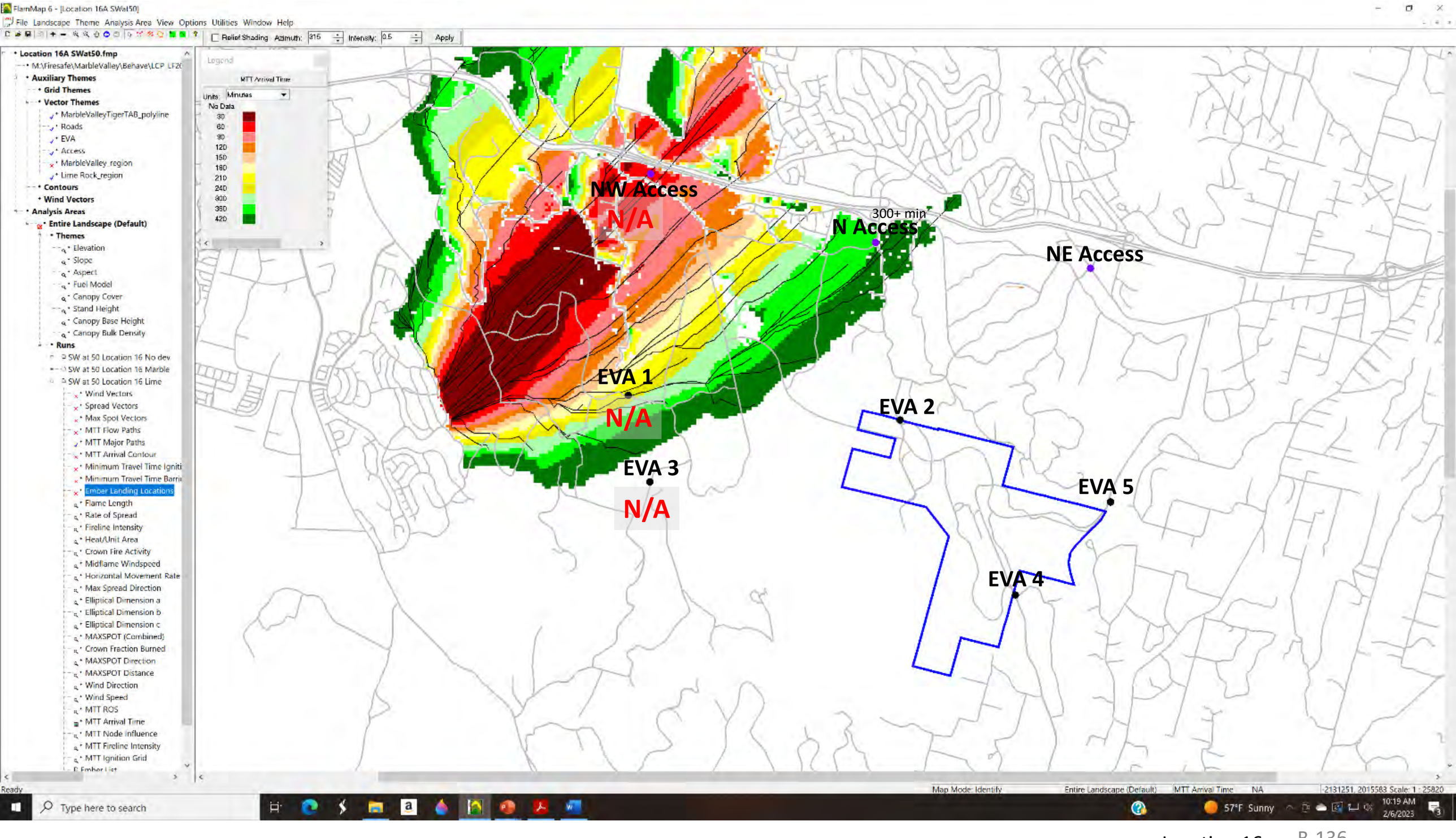
Location 16 SW wind at 50 mph No Dev – Scn 16E



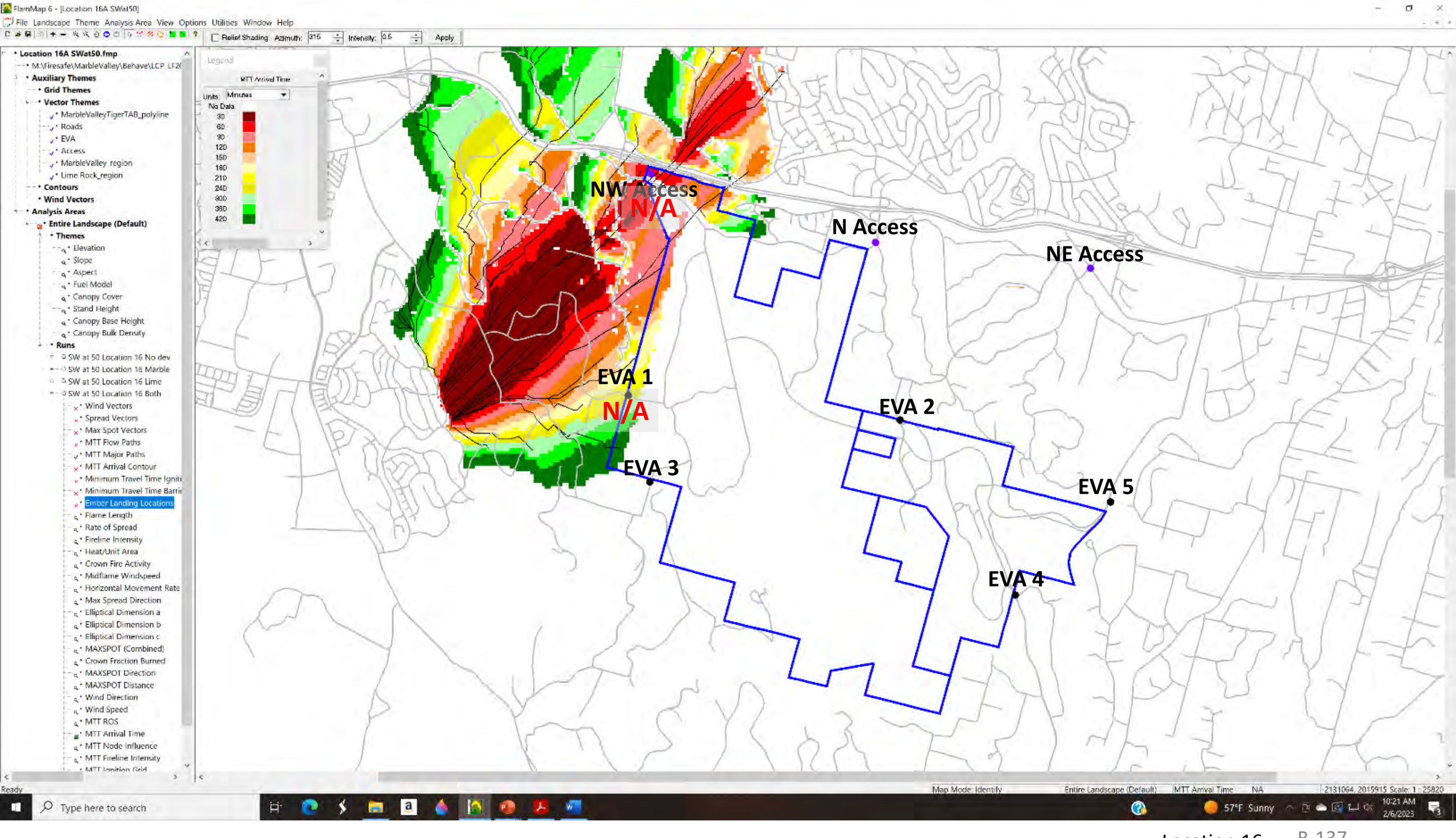
Location 16 SW wind at 50 mph Marble – Scn 16F



Location 16 SW wind at 50 mph Lime – Scn 16G



Location 16 SW wind at 50 mph Both – Scn 16H



Inputs: SURFACE

Description: Marble Valley Fuel Comparison

Fuel/Vegetation, Surface/Understory

Fuel Model: gr1, gr2, gr4, gs1, gs2, sh2, sh5, s

Fuel Moisture

1-h Fuel Moisture	%	3
10-h Fuel Moisture	%	4
100-h Fuel Moisture	%	5
Live Herbaceous Fuel Moisture	%	30
Live Woody Fuel Moisture	%	50

Weather

20-ft Wind Speed (upslope)	mi/h	0, 30, 40, 50, 65
Wind Adjustment Factor		0.5

Terrain

Slope Steepness	%	50

Run Option Notes

Maximum effective wind speed limit IS imposed [SURFACE].
Fire spread is in the HEADING direction only [SURFACE].
Wind is blowing upslope [SURFACE].
Wind and spread directions are degrees clockwise from north [SURFACE].
Wind direction is the direction from which the wind is blowing [SURFACE].

Output Variables

Surface Fire Rate of Spread (ch/h) [SURFACE]
Surface Fireline Intensity (Btu/ft/s) [SURFACE]
Surface Fire Flame Length (ft) [SURFACE]

Notes

Marble Valley Fuel Comparison

Head Fire

Surface Fire Rate of Spread (ch/h)

Fuel Model	20-ft Wind Speed (upslope) mi/h				
	0	30	40	50	65
gr1	12.4	27.3	27.3	27.3	27.3
gr2	26.7	244.3	244.3	244.3	244.3
gr4	53.6	679.4	1005.4	1287.8	1287.8
gs1	13.3	164.3	184.8	184.8	184.8
gs2	18.6	225.7	333.7	454.9	513.8
sh2	6.2	59.8	86.1	115.1	163.1
sh5	37.2	406.2	556.7	714.5	962.4
sh7	26.5	263.8	359.6	459.8	616.9
tu4	9.7	116.8	180.3	254.5	383.9
tu5	7.7	55.5	74.7	94.8	126.3
tl1	0.7	1.4	1.4	1.4	1.4
tl2	1.0	3.7	3.7	3.7	3.7
tl3	1.3	5.2	5.2	5.2	5.2
tl4	1.8	10.0	10.0	10.0	10.0
tl5	3.1	28.9	36.9	36.9	36.9
tl6	4.2	42.2	62.8	86.2	95.5
tl8	4.5	38.7	56.1	75.6	108.1
SCAL14	11.6	89.7	113.8	137.5	172.4
SCAL15	13.3	122.0	160.9	200.4	260.7
SCAL16	19.7	188.5	250.5	313.9	411.0
SCAL17	21.0	242.5	350.8	470.3	667.1

66 feet to the chain/80 chains to the mile

gr4 is traveling 16 mph in a 50 mph wind
sh5 is traveling 12 mph in a 65 mph wind

Marble Valley Fuel Comparison

Head Fire

Surface Fireline Intensity (Btu/ft/s)

Fuel Model	20-ft Wind Speed (upslope) mi/h				
	0	30	40	50	65
gr1	20	44	44	44	44
gr2	127	1165	1165	1165	1165
gr4	496	6287	9304	11917	11917
gs1	86	1058	1190	1190	1190
gs2	196	2372	3506	4779	5398
sh2	169	1623	2338	3126	4428
sh5	1315	14373	19697	25281	34052
sh7	1267	12609	17190	21982	29492
tu4	232	2776	4285	6049	9126
tu5	431	3103	4177	5299	7056
tl1	2	3	3	3	3
tl2	3	12	12	12	12
tl3	5	22	22	22	22
tl4	9	53	53	53	53
tl5	24	222	283	283	283
tl6	41	413	614	843	933
tl8	68	590	857	1155	1651
SCAL14	814	6295	7983	9643	12093
SCAL15	422	3882	5121	6380	8299
SCAL16	783	7489	9952	12471	16330
SCAL17	337	3888	5626	7540	10696

Marble Valley Fuel Comparison

Head Fire

Surface Fire Flame Length (ft)

Fuel Model	20-ft Wind Speed (upslope) mi/h				
	0	30	40	50	65
gr1	1.8	2.6	2.6	2.6	2.6
gr2	4.2	11.6	11.6	11.6	11.6
gr4	7.8	25.1	30.1	33.7	33.7
gs1	3.5	11.1	11.7	11.7	11.7
gs2	5.1	16.1	19.2	22.2	23.4
sh2	4.8	13.5	16.0	18.2	21.4
sh5	12.2	36.8	42.5	47.7	54.7
sh7	12.0	34.6	39.9	44.7	51.2
tu4	5.5	17.3	21.1	24.7	29.8
tu5	7.3	18.2	20.8	23.2	26.5
tl1	0.6	0.8	0.8	0.8	0.8
tl2	0.8	1.4	1.4	1.4	1.4
tl3	1.0	1.9	1.9	1.9	1.9
tl4	1.3	2.8	2.8	2.8	2.8
tl5	1.9	5.4	6.0	6.0	6.0
tl6	2.5	7.2	8.6	10.0	10.5
tl8	3.1	8.5	10.1	11.5	13.6
SCAL14	9.8	25.2	28.1	30.6	34.0
SCAL15	7.3	20.1	22.9	25.3	28.6
SCAL16	9.6	27.3	31.1	34.5	39.0
SCAL17	6.5	20.2	23.9	27.3	32.1

Discrete Variable Codes Used
Marble Valley Fuel Comparison

Fuel Model		
101	gr1	Short, sparse, dry climate grass (D)
102	gr2	Low load, dry climate grass (D)
104	gr4	Moderate load, dry climate grass (D)
121	gs1	Low load, dry climate grass-shrub (D)
122	gs2	Moderate load, dry climate grass-shrub (D)
142	sh2	Moderate load, dry climate shrub (S)
145	sh5	High load, dry climate shrub (S)
147	sh7	Very high load, dry climate shrub (S)
164	tu4	Dwarf conifer understory (S)
165	tu5	Very high load, dry climate timber-shrub (S)
181	tl1	Low load, compact conifer litter (S)
182	tl2	Low load broadleaf litter (S)
183	tl3	Moderate load conifer litter (S)
184	tl4	Small downed logs (S)
185	tl5	High load conifer litter (S)
186	tl6	High load broadleaf litter (S)
188	tl8	Long-needle litter (S)
14	SCAL14	Manzanita
15	SCAL15	Chamise 1
16	SCAL16	North Slope Ceanothus
17	SCAL17	Chamise 2

Dead Component Calculation

Fuel Model Code	Fuel Model Number	Fuel bed depth (ft)	Dead fuel extinction moisture (percent)	Heat content BTU/lb[c]	Fuel Model Code	100% Transfer Dead	100% Transfer Herb	Dead load Total Load	Percentage Dead Component
SCAL14	N/A	3.0	15	9211	SCAL14	8.55	no transfer	8.55	15.00	57%
SCAL15	N/A	3.0	13	10000	SCAL15	6.00	no transfer	6.00	8.50	71%
SCAL16	N/A	6.0	15	8000	SCAL16	8.85	no transfer	8.85	14.70	60%
SCAL17	N/A	4.0	20	8000	SCAL17	3.30	no transfer	3.30	7.30	45%
GR1	101	0.4	15	8000	GR1	0.10	0.30	0.19	0.40	48%
GR2	102	1.0	15	8000	GR2	0.10	1.00	1.10	1.10	100%
GR4	104	2.0	15	8000	GR4	0.25	1.90	2.15	2.15	100%
GS1	121	0.9	15	8000	GS1	0.20	0.50	0.45	1.35	33%
GS2	122	1.5	15	8000	GS2	1.00	0.60	1.36	2.60	52%
SH1	141	1.0	15	8000	SH1	0.50	0.15	0.52	1.95	27%
SH2	142	1.0	15	8000	SH2	4.50	no transfer	4.50	8.35	54%
SH5	145	6.0	15	8000	SH5	5.70	no transfer	5.70	8.60	66%
SH7	147	6.0	15	8000	SH7	11.00	no transfer	11.00	14.40	76%
TU1	161	0.6	20	8000	TU1	2.60	0.20	2.64	3.70	71%
TU4	164	0.5	12	8000	TU4	4.50	no transfer	4.50	6.50	69%
TU5	165	1.0	25	8000	TU5	11.00	no transfer	11.00	14.00	79%
TL1	181	0.2	30	8000	TL1	6.80	no transfer	6.80	6.80	100%
TL2	182	0.2	25	8000	TL2	5.90	no transfer	5.90	5.90	100%
TL3	183	0.3	20	8000	TL3	5.50	no transfer	5.50	5.50	100%
TL4	184	0.4	25	8000	TL4	6.20	no transfer	6.20	6.20	100%
TL5	185	0.6	25	8000	TL5	8.05	no transfer	8.05	8.05	100%
TL6	186	0.3	25	8000	TL6	4.80	no transfer	4.80	4.80	100%
TL8	188	0.3	35	8000	TL8	8.30	no transfer	8.30	8.30	100%

Fuel model parameters

Fuel Model Code	Fuel Model Number	Climate	Fuel load (t/ac) 1-hr	10-hr	100-hr	Live herb	Live woody	Fuel model type[a]	SAV ratio (1/ft)[b] Dead 1-hr	Live herb	Live woody
SCAL14	N/A	N/A	3.00	4.50	1.05	1.45	5.00	static	350	1500	250
SCAL15	N/A	N/A	2.00	3.00	1.00	0.50	2.00	static	640	220	640
SCAL16	N/A	N/A	2.25	4.80	1.80	3.00	2.85	static	500	1500	500
SCAL17	N/A	N/A	1.30	1.00	1.00	2.00	2.00	static	640	2200	640
GR1	101	Dry	0.10	0.00	0.00	0.30	0.00	dynamic	2200	2000	9999
GR2	102	Dry	0.10	0.00	0.00	1.00	0.00	dynamic	2000	1800	9999
GR4	104	Dry	0.25	0.00	0.00	1.90	0.00	dynamic	2000	1800	9999
GS1	121	Dry	0.20	0.00	0.00	0.50	0.65	dynamic	2000	1800	1800
GS2	122	Dry	0.50	0.50	0.00	0.60	1.00	dynamic	2000	1800	1800
SH1	141	Dry	0.25	0.25	0.00	0.15	1.30	dynamic	2000	1800	1600
SH2	142	Dry	1.35	2.40	0.75	0.00	3.85	static	2000	9999	1600
SH5	145	Dry	3.60	2.10	0.00	0.00	2.90	static	750	9999	1600
SH7	147	Dry	3.50	5.30	2.20	0.00	3.40	static	750	9999	1600
TU1	161	Dry	0.20	0.90	1.50	0.20	0.90	dynamic	2000	1800	1600
TU4	164	Dry	4.50	0.00	0.00	0.00	2.00	static	2300	9999	2000
TU5	165	Dry	4.00	4.00	3.00	0.00	3.00	static	1500	9999	750
TL1	181	N/A	1.00	2.20	3.60	0.00	0.00	static	2000	9999	9999
TL2	182	N/A	1.40	2.30	2.20	0.00	0.00	static	2000	9999	9999
TL3	183	N/A	0.50	2.20	2.80	0.00	0.00	static	2000	9999	9999
TL4	184	N/A	0.50	1.50	4.20	0.00	0.00	static	2000	9999	9999
TL5	185	N/A	1.15	2.50	4.40	0.00	0.00	static	2000	9999	9999
TL6	186	N/A	2.40	1.20	1.20	0.00	0.00	static	2000	9999	9999
TL8	188	N/A	5.80	1.40	1.10	0.00	0.00	static	1800	9999	9999

Only three fuel models have fuel bed depths over 4 foot.

Inputs: SURFACE

Description		Chaparral Fuel Scenario Worst Case
Fuel/Vegetation, Surface/Understory		
Chaparral Fuel Bed Depth	ft	8
Chaparral Dead Load Fraction	%	32, 33, 34, 35, 36, 40, 41, 42, 43,
Chaparral Total Fuel Load	ton/ac	25, 28, 29, 31
Fuel Moisture		
1-h Fuel Moisture	%	3
10-h Fuel Moisture	%	4
100-h Fuel Moisture	%	5
Live Herbaceous Fuel Moisture	%	30
Live Woody Fuel Moisture	%	50
Weather		
20-ft Wind Speed	mi/h	65
Wind Adjustment Factor		0.5
Wind Direction (from north)	deg	45
Terrain		
Slope Steepness	%	50
Site Aspect	deg	45

Run Option Notes

Maximum effective wind speed limit IS imposed [SURFACE].

A special case fuel model is used: chaparral (Rothermel and Philpot 1973) [SURFACE].

Fire spread is in the HEADING direction only [SURFACE].

Wind is in specified directions [SURFACE].

Wind and spread directions are degrees clockwise from north [SURFACE].

Wind direction is the direction from which the wind is blowing [SURFACE].

Output Variables

Surface Fire Rate of Spread (ft/min) [SURFACE]

Surface Fireline Intensity (kW/m) [SURFACE]

Surface Fire Flame Length (ft) [SURFACE]

Surface Fire Dir of Max Spread (from north) (deg) [SURFACE]

Chaparral Total Dead Fuel Load (ton/ac) [SURFACE]

Chaparral Fuel Scenario Worst Case

Head Fire

Surface Fire Rate of Spread (ft/min)

Chaparral Fuel Dead Load Fraction %	Chaparral Total Fuel Load ton/ac 25	28	29	31
32	719.0	712.7	710.6	706.5
33	717.4	711.2	709.2	705.1
34	715.1	709.0	706.9	702.9
35	711.9	705.9	703.9	699.9
36	707.9	702.0	700.0	696.1
40	683.6	678.3	676.6	673.1
41	675.5	670.5	668.8	665.3
42	666.7	661.8	660.1	656.9
43	657.0	652.3	650.8	647.6
44	646.5	642.1	640.6	637.6
45	635.3	631.1	629.7	626.9
46	623.2	619.3	618.0	615.3
47	610.3	606.8	605.6	603.1
48	596.7	593.4	592.3	590.0
49	582.2	579.3	578.3	576.2
50	566.8	564.3	563.4	561.5

Chaparral Fuel Scenario Worst Case

Head Fire

Surface Fireline Intensity (kW/m)

Chaparral Fuel Dead Load Fraction	Chaparral Total Fuel Load ton/ac			
%	25	28	29	31
32	81327	92797	96604	104181
33	82535	94220	98100	105824
34	83627	95515	99464	107328
35	84600	96679	100693	108688
36	85451	97707	101781	109900
40	87601	100433	104708	113237
41	87820	100764	105078	113691
42	87911	100954	105304	113992
43	87873	101002	105384	114139
44	87703	100907	105317	114133
45	87402	100668	105103	113972
46	86966	100282	104737	113654
47	86391	99746	104218	113175
48	85673	99055	103540	112531
49	84805	98201	102697	111714
50	83779	97177	101679	110716

Chaparral Fuel Scenario Worst Case

Head Fire

Surface Fire Flame Length (ft)

Chaparral Fuel Dead Load Fraction	Chaparral Total Fuel Load ton/ac			
%	25	28	29	31
32	46.1	49.0	49.9	51.7
33	46.4	49.3	50.3	52.0
34	46.7	49.6	50.6	52.4
35	46.9	49.9	50.9	52.7
36	47.2	50.2	51.1	52.9
40	47.7	50.8	51.8	53.7
41	47.8	50.9	51.9	53.8
42	47.8	50.9	51.9	53.8
43	47.8	50.9	51.9	53.9
44	47.7	50.9	51.9	53.9
45	47.7	50.9	51.9	53.8
46	47.5	50.8	51.8	53.8
47	47.4	50.6	51.7	53.7
48	47.2	50.5	51.5	53.5
49	47.0	50.3	51.3	53.3
50	46.7	50.0	51.1	53.1

Chaparral Fuel Scenario Worst Case

Head Fire

Surface Fire Dir of Max Spread (from north) (deg)

Chaparral Fuel Dead Load Fraction	Chaparral Total Fuel Load ton/ac			
%	25	28	29	31
32	225	225	225	225
33	225	225	225	225
34	225	225	225	225
35	225	225	225	225
36	225	225	225	225
40	225	225	225	225
41	225	225	225	225
42	225	225	225	225
43	225	225	225	225
44	225	225	225	225
45	225	225	225	225
46	225	225	225	225
47	225	225	225	225
48	225	225	225	225
49	225	225	225	225
50	225	225	225	225

Chaparral Fuel Scenario Worst Case

Head Fire

Chaparral Total Dead Fuel Load (ton/ac)

Chaparral Fuel Dead Load Fraction	Chaparral Total Fuel Load ton/ac			
%	25	28	29	31
32	8.000	8.960	9.280	9.920
33	8.250	9.240	9.570	10.230
34	8.500	9.520	9.860	10.540
35	8.750	9.800	10.150	10.850
36	9.000	10.080	10.440	11.160
40	10.000	11.200	11.600	12.400
41	10.250	11.480	11.890	12.710
42	10.500	11.760	12.180	13.020
43	10.750	12.040	12.470	13.330
44	11.000	12.320	12.760	13.640
45	11.250	12.600	13.050	13.950
46	11.500	12.880	13.340	14.260
47	11.750	13.160	13.630	14.570
48	12.000	13.440	13.920	14.880
49	12.250	13.720	14.210	15.190
50	12.500	14.000	14.500	15.500

Appendix N

Fire Evacuation Assessment

Village of Marble Valley Specific Plan Fire Evacuation Assessment

Prepared for:
County of El Dorado

September 28, 2023

RS22-4228

FEHR PEERS

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Executive Summary

This report presents the results of the wildfire evacuation time analysis conducted for the Village of Marble Valley Specific Plan Project (hereafter referred to as "Marble Valley Specific Plan" or "Project") to comply with the requirements of the California Environmental Quality Act (CEQA) as established in the CEQA Statute and CEQA Guidelines and applicable/published court decisions.

Purpose

The purpose of this wildfire evacuation assessment is to address CEQA guidance released by the Attorney General in response to recent California Environmental Quality Act (CEQA) court decisions whereby EIRs were deemed to be inadequate due to the lack of a sufficient analysis around the Project's effect on the ability of the local community to evacuate due to a wildfire or similar disaster, and compliance with CalFire regulations related to wildfire evacuation and emergency access.

Project Description

The Project includes the development of 3,236 dwelling units, 87 acres of public facility / recreational use, 475,000 square feet of commercial use, 35 acres for two public schools (K5 / K8), 1,284 acres of open space, 55 acres of agricultural use, and 61 acres of new road impact areas and future right-of-way. Planned improvements are proposed for 1,875 acres of the 2,341-acre site. Most of the development would occur north of Deer Creek. The proposed project expands the Community Region of El Dorado Hills to include the Project area.

US 50 access will be through the US 50 / Bass Lake Road and US 50 / Cambridge Road interchanges. Marble Valley Parkway is proposed as a continuous roadway connecting the Bass Lake Road and Cambridge Road interchanges. A portion of Marble Valley Parkway is outside the plan area. Marble Lake Boulevard, which is planned as a four- to two-lane roadway, will provide the primary access roadway serving the project. Marble Lake Boulevard will be four lanes from US 50 to just south of Marble Valley Parkway. Major intersections along Marble Lake Boulevard are planned to have roundabout control. Lime Rock Valley Boulevard will extend east of Marble Lake Boulevard as a two-lane roadway.

Study Overview

The study uses evacuation time estimates as a metric to evaluate evacuation performance. Evacuation time is defined as the estimated time necessary to safely evacuate all evacuees, from the time when a hazard is first identified until the time when the last evacuee leaves a hazardous area.

The study was conducted in coordination with Firesafe Planning Solutions, emergency service providers, and fire agencies. The evacuation assesses the four development scenarios under existing conditions:

- No Project – Represents existing conditions (i.e., existing residents).
- Marble Valley Specific Plan – Represents existing conditions with buildout of the Marble Valley Specific Plan.
- Lime Rock Valley Specific Plan – Represents existing conditions with buildout of the Lime Rock Valley Specific Plan.
- Marble Valley & Lime Rock Valley Specific Plans – Represents existing conditions with buildout of both the Marble Valley and Lime Rock Valley Specific Plans.

Wildland Fire Evacuation Risk and Fire Behavior Report

Firesafe Planning Solutions prepared a wildland fire risk report for the Village of Marble Valley Specific Plan, *Wildland Fire Evacuation Risk Report, Fire Behavior – The Village of Marble Valley Project* to assess the risk related to wildfires and the intensity of a wildfire approaching the Project site and covers the following topics:

- Current Environmental Conditions – Identifies the location of the project site and adjacent wildland and agency responsible for fire protection.
- Wildland Fire Evacuation Risk and Fire Behavior Report – Analyzes the likelihood and intensity of wildfire hazards and the risk/vulnerability of the project to wildfire hazards.
- Project Impacts Related to Wildland Fires – Analyzes the project design relative to wildfire events and incorporates the fire history of the project area, weather (i.e., temperature, relative humidity, wind), fuel (i.e., wildland and built environment), geography (i.e., slope, aspect, elevation), and historical fire activity.
- Water Supply and Infrastructure – Describes the existing and proposed water supply and infrastructure.
- Fire Protection Resources – Identifies the existing and proposed fire resources.
- Risk Reduction Measures – Outlines risk reduction measures required by code, ordinance, and standards as well as additional benefits that the project provides to existing communities.

The analysis considers existing/future vegetative interface fuels, topography, fire, and weather conditions during extreme fire conditions. The report provides results of computer modeling that measured the fire intensity, flame lengths, rate of spread, and fire travel distance (arrival times) from worst-case scenario wildfires in both the extreme (Diablo wind) and the predominant (Onshore wind) wind conditions.

The results of fire behavior modeling have been incorporated into the analysis of the interfaces of the project with adjacent wildlands and the potential ingress/egress routes used by the Project site daily and under emergency conditions where evacuation might be necessary. **Appendix A** includes the *Wildland Fire Evacuation Risk Report, Fire Behavior – The Village of Marble Valley Project*.

Evacuation Time Estimates

The study uses evacuation time as a metric to evaluate evacuation performance.

As outlined in the *Wildland Evacuation Fire Risk Report, Fire Behavior – The Village of Marble Valley Project*, the fire scenarios modeled are extreme and the results indicate the fire will be traveling at a rate faster than fire suppression activity will allow for control lines. The size, location and configuration of the Project site makes it unlikely that a fire will impact the entire evacuation area, but rather the fire will impact different portions over time. Consequently, evacuation time estimates are developed for the following evacuation conditions:

- Self-Evacuation – Represents the evacuation of populations in the direct path of the fire where advanced notice is not available due to the fire's progression. These vulnerable populations are in the red areas (i.e., where the fire's progression is 60 minutes or less) shown in **Figures ES1 through ES4**. As analyzed, evacuation is assumed to begin within 15 minutes of the fire's recognition. However, self-evacuation may be a part of an Ordered Evacuation, representing an initial phase of the evacuation that occurs before the Sheriff issues an order to evacuate. Evacuation time is estimated from the evacuation trip origin to the closest safe location not in the direct path of the fire, which may be inside or outside the study area shown on **Figure 2**.
- Ordered Evacuation – Represents the evacuation of the entire population (residents, students, employees, and visitors) in the evacuation area for an event with ample notice where emergency services are participating in the evacuation. As analyzed, the evacuation window is 3 hours (180 minutes) beginning from the Sheriff ordering the evacuation. Evacuation time is estimated from the evacuation trip origin to the study area gateways, outside the study area.

Self-Evacuation (Vulnerable Population)

The analysis results for Self-Evacuation are summarized in **Figures ES-1 through ES-4**.

As shown, the addition of the Project slows the progression of the fire event. Consequently, the vulnerable population in the existing community areas will decrease compared to existing conditions due to the fuels removed by the Project, fuels management activities, and the creation of fire breaks conducted around the Project perimeter. Under Fire Scenarios 2 and 4, all the existing community areas would be outside the vulnerable areas with the addition of both the Project and Lime Rock Valley Specific Plans.

For all fire scenarios, it would take less than 20 minutes to move all the vulnerable evacuees (i.e., existing or project evacuees) to a safe location, which is less than the 30 minute fire progression shown in **Figures**

ES1 through ES8. The maximum total time to safety would decrease for existing vulnerable evacuees with the Project. This is due to the increased access to evacuation routes and the slowed progression of the fire created by the removal of fuels and vegetation and fuels management activities occurring with the Project, which creates additional safe areas for vulnerable evacuees to access.

Ordered Evacuation

The analysis results for the Ordered Evacuation are summarized in **Figures ES-5 through ES-8.**

For all fire scenarios, it would take less than 200 minutes to evacuate the study area. For most fire scenarios, the addition of project evacuees would not increase the total time to evacuate existing residents. In most instances this is due to the increase in available evacuation routes (i.e., more routes) and an increase in the availability of evacuation routes (i.e., routes remain viable for evacuation longer), resulting from the slower progression of the fire due to the addition of the project.

Under Scenario 4, the addition of the Project would result in an increase of about 5 minutes in the total evacuation time for existing residents. Under this scenario, the fire location is on the south end of the Project, so the effect of the Project on the progression of the fire is limited because the Project does not remove fuels in the path of the fire. Consequently, the availability of Emergence Vehicle Access (EVA) 2 is reduced to 150 minutes and the Northeast Access (i.e., Durock Road and the US 50/Cameron Park Drive interchange) is reduced to 90 minutes. This reduction in evacuation route availability results in longer travel time for some existing evacuees that must use more distant or more congested access routes. However, as outlined above in the Self-Evacuation analysis, the addition of the Project would decrease the time for existing vulnerable evacuees to move to safety. Therefore, the increase in total evacuation time will not affect the ability to get to a safe location before direct exposure to the fire.

With the addition of the Project and the Lime Rock Valley Specific Plan, the total time to evacuate the existing evacuees would be like no project conditions. Again, this is due to the increased access to evacuation routes and the slowed progression of the fire with the Lime Rock Valley Specific Plan due to the removal of wildland fuels.

The EVAC+[1] results do not include potential unknown factors that could produce much longer travel times such as road closures due to stalled or inoperable vehicles or other blockages such as falling trees.

Cumulative Conditions

The analysis results presented above for existing conditions are applicable to cumulative conditions, since the Project and proposed Lime Rock Specific Plan are the only significant development projects in the study

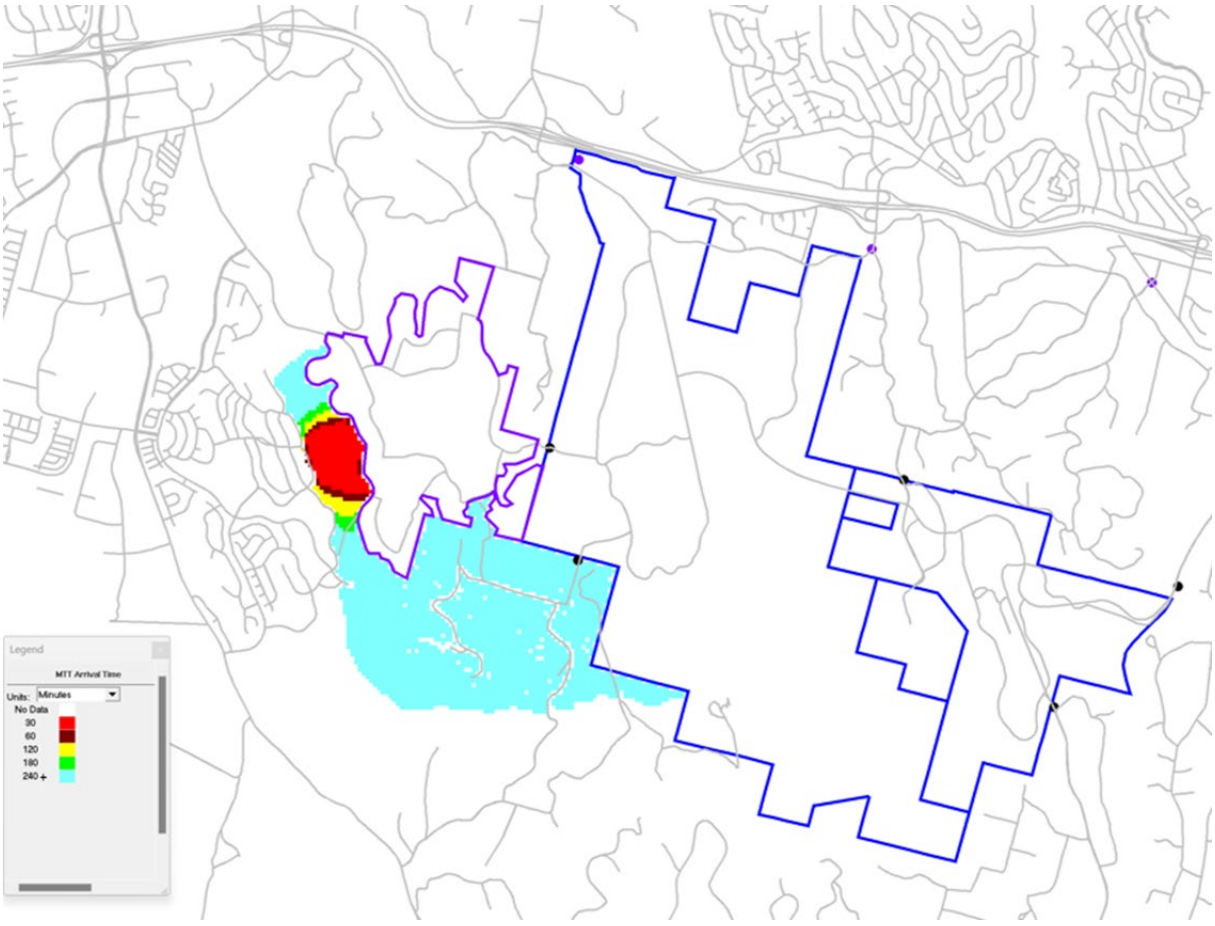
[1] EVAC+ is a dynamic traffic assignment model, is built in TransCAD 8.0, sensitive to how demand flows in short periods of time affects the speed of travel on the roadway network and the resulting ability of individual roadway segments to accommodate that demand.

area that would add substantial population and transportation facilities that may affect the evacuation routes that may be used by the existing communities.

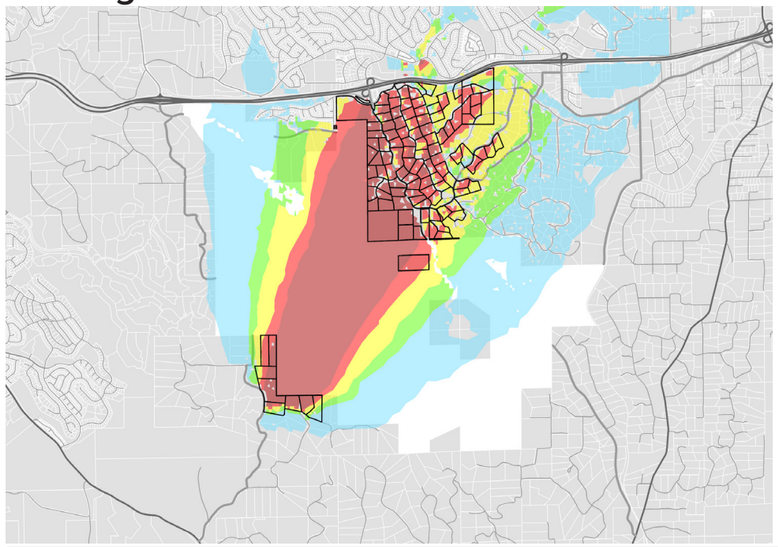
East Ridge Village is an approved planned residential development between the Project (i.e., to the west) and the existing Blackstone community, east of Latrobe Road. As a planned development, East Ridge Village was not assumed in the evacuation time estimates presented above. In addition, East Ridge Village does not include any full access roadway connections to the Project or to the evacuation routes shown on **Figure 2**.

However, future development of East Ridge Village would affect the behavior of Fire Scenario 16 by reducing the progression of the fire event. **Figure ES-9** shows the progression of Fire Scenario 16 with the addition of the approved East Ridge Village development. As shown, East Ridge Village would substantially delay the progression of the fire event to the point where the fire would take 200 or more minutes to reach the Project and the fire would not burn through the project to existing communities to the east. This is due to the slowed progression of the fire created by the removal of fuels with East Ridge Village.

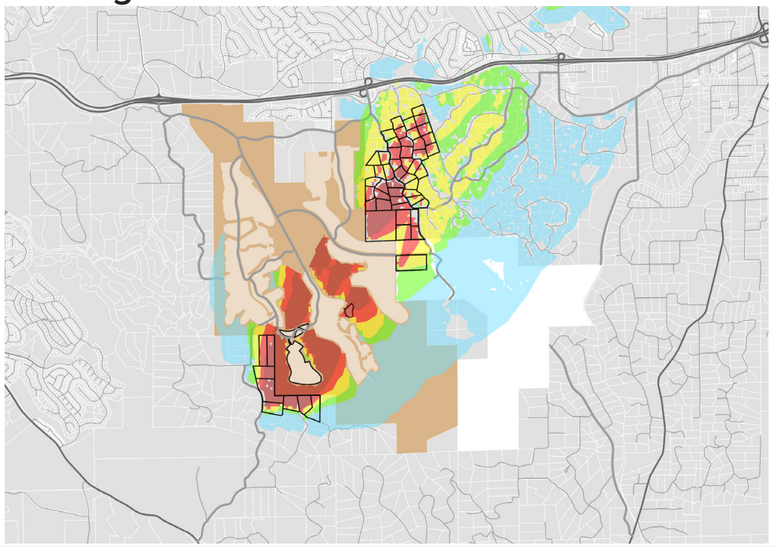
Figure ES-9: Fire Scenario 16 With Approved East Ridge Village Development



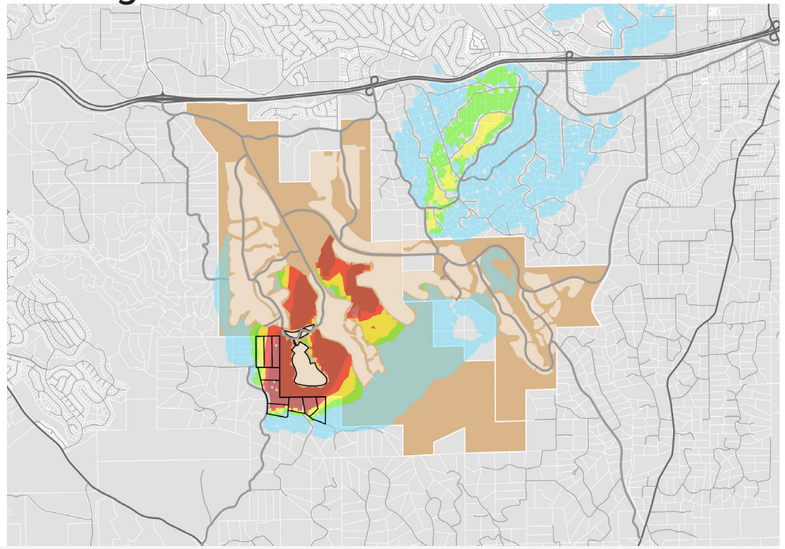
Existing



Existing Plus MVSP



Existing Plus MVSP & LRVSP



Fire Progression (minutes): 30 | 60 | 120 | 180 | 240 | Project Area | Project Residential Area | Vulnerable Parcels | Evacuation Routes

Vulnerable Evacuees

108 Existing Population | **45** Existing Households | **20** Existing Employees

264 Project Population | **100** Project Households | **0** Project Employees

Evacuation Vehicle Trips

85 Existing Evacuees

Total Time to Safety (minutes)

18.1

Vulnerable Evacuees

32 Existing Population | **14** Existing Households | **5** Existing Employees

264 Project Population | **100** Project Households | **0** Project Employees

Evacuation Vehicle Trips

31 Existing Evacuees | **189** Project Only Evacuees

Total Time to Safety (minutes)

17.6

19.1

Vulnerable Evacuees

0 Existing Population | **0** Existing Households | **0** Existing Employees

264 Project Population | **100** Project Households | **0** Project Employees

Evacuation Vehicle Trips

0 Existing Evacuees | **189** Project Only Evacuees

Total Time to Safety (minutes)

N/A

19.1

Vulnerable evacuees are the population directly in the path of the fire (Red Area <= 60 minute fire progression). They are assumed to start self evacuation immediately, i.e., within 15 minutes of fire.

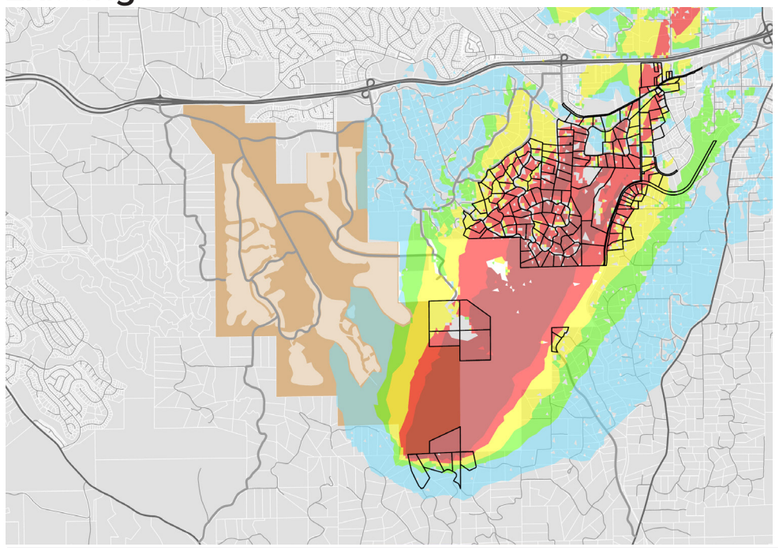
Travel time to safety is defined as the time required for the vulnerable evacuees to exit the red area.

Figure ES1

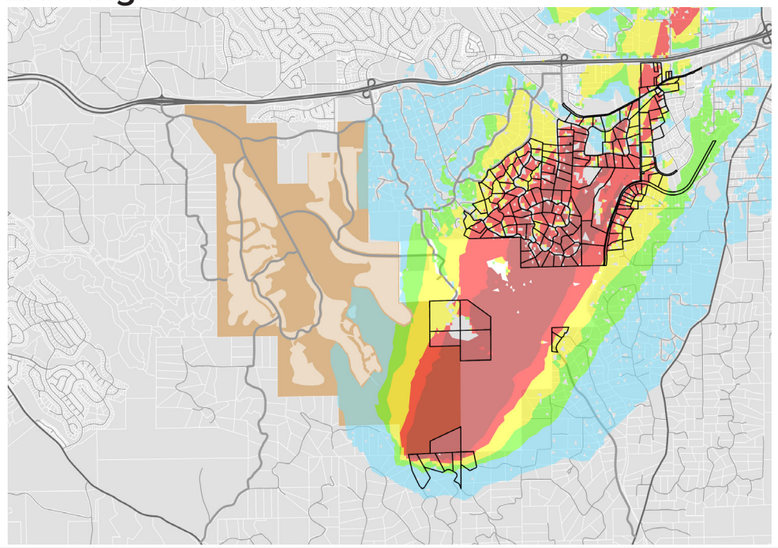
Travel Time to Safety for Vulnerable Evacuees Fire Scenario 2

Evacuation Begins at 11am

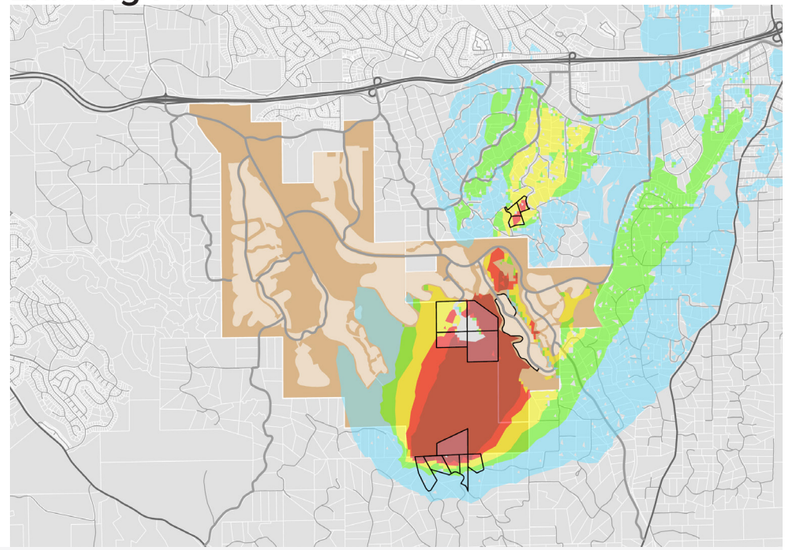
Existing



Existing Plus MVSP



Existing Plus MVSP & LRVSP



Fire Progression (minutes): 30 | 60 | 120 | 180 | 240 | Project Area | Project Residential Area | Vulnerable Parcels | Evacuation Routes

Vulnerable Evacuees

193 Existing Population | **80** Existing Households | **241** Existing Employees

Evacuation Vehicle Trips

212 Existing Evacuees

Total Time to Safety (minutes)

19.8

Vulnerable Evacuees

159 Existing Population | **67** Existing Households | **12** Existing Employees

527 Project Population | **198** Project Households | **0** Project Employees

Evacuation Vehicle Trips

95 Existing Evacuees | **342** Project Only Evacuees

Total Time to Safety (minutes)

18.2

19.3

Vulnerable Evacuees

0 Existing Population | **0** Existing Households | **0** Existing Employees

404 Project Population | **160** Project Households | **0** Project Employees

Evacuation Vehicle Trips

0 Existing Evacuees | **303** Project Only Evacuees

Total Time to Safety (minutes)

N/A

18.2

Vulnerable evacuees are the population directly in the path of the fire (Red Area <= 60 minute fire progression). They are assumed to start self evacuation immediately, i.e., within 15 minutes of fire.

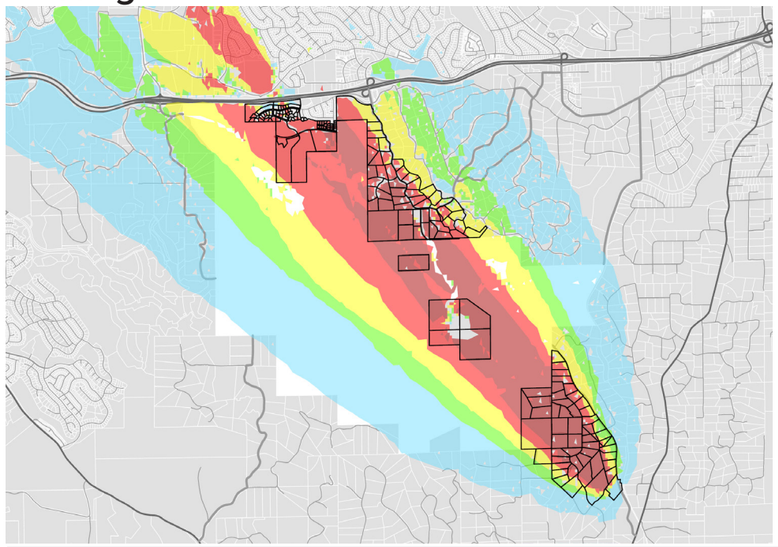
Travel time to safety is defined as the time required for the vulnerable evacuees to exit the red area.

Figure ES2

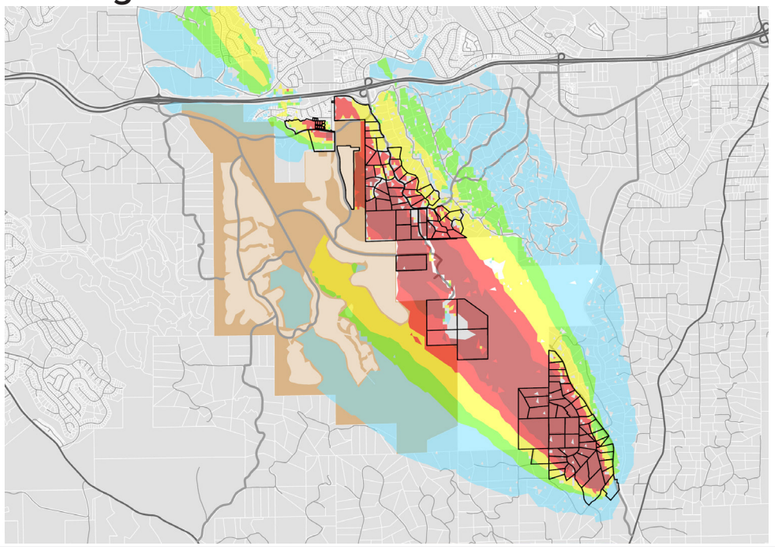
Travel Time to Safety for Vulnerable Evacuees Fire Scenario 4

Evacuation Begins at 11am

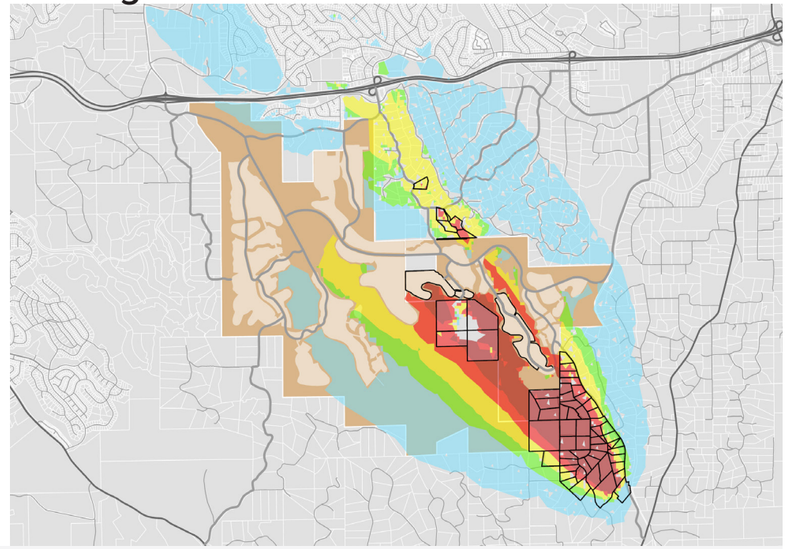
Existing



Existing Plus MVSP



Existing Plus MVSP & LRVSP



Fire Progression (minutes): 30 60 120 180 240 Project Area Project Residential Area Vulnerable Parcels Evacuation Routes

Vulnerable Evacuees

557 Existing Population **235** Existing Households **15** Existing Employees

132 Project Population **50** Project Households **0** Project Employees

Evacuation Vehicle Trips

445 Existing Evacuees

Total Time to Safety (minutes)

20.4

Vulnerable Evacuees

301 Existing Population **125** Existing Households **12** Existing Employees

132 Project Population **50** Project Households **0** Project Employees

Evacuation Vehicle Trips

237 Existing Evacuees **95** Project Only Evacuees

Total Time to Safety (minutes)

19.9

19.1

Vulnerable Evacuees

207 Existing Population **86** Existing Households **0** Existing Employees

323 Project Population **128** Project Households **0** Project Employees

Evacuation Vehicle Trips

163 Existing Evacuees **243** Project Only Evacuees

Total Time to Safety (minutes)

19.9

18.2

Vulnerable evacuees are the population directly in the path of the fire (Red Area <= 60 minute fire progression). They are assumed to start self evacuation immediately, i.e., within 15 minutes of fire.

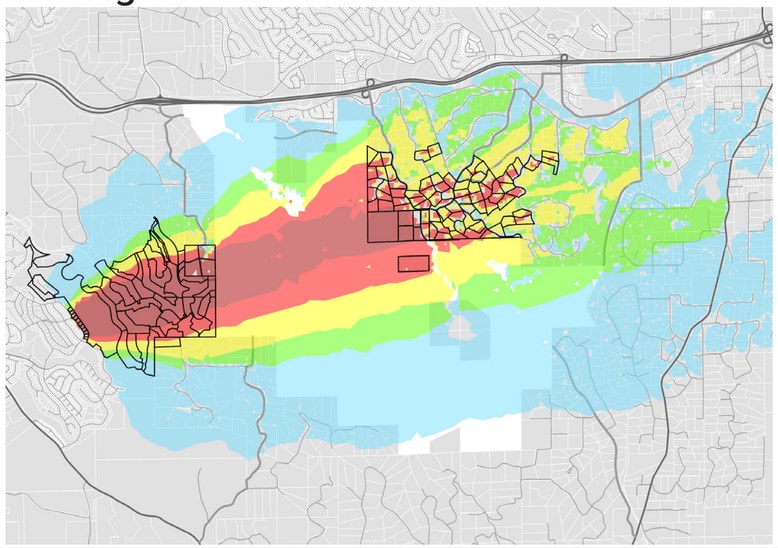
Travel time to safety is defined as the time required for the vulnerable evacuees to exit the red area.

Figure ES3

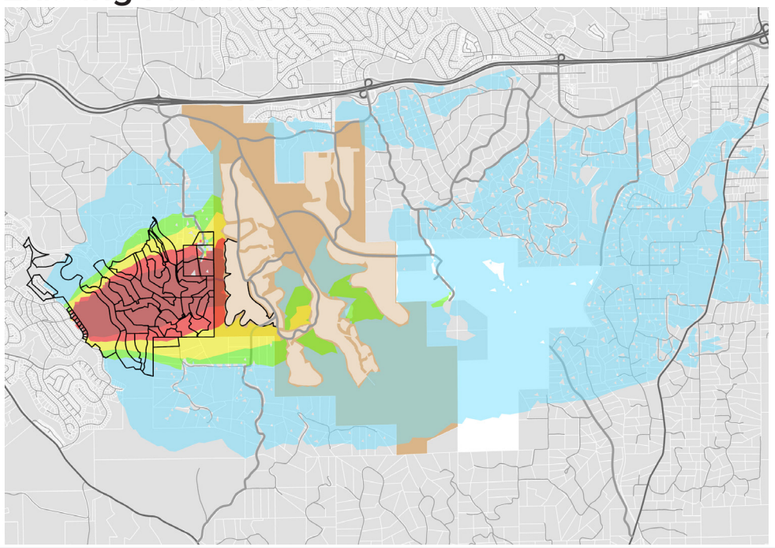
Travel Time to Safety for Vulnerable Evacuees Fire Scenario 7

Evacuation Begins at 7am

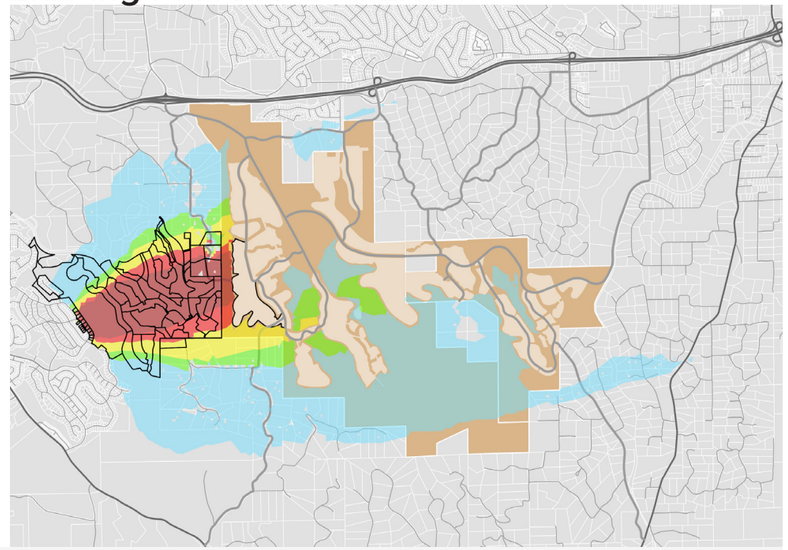
Existing



Existing Plus MVSP



Existing Plus MVSP & LRVSP



Fire Progression (minutes): 30 60 120 180 240 Project Area Project Residential Area Vulnerable Parcels Evacuation Routes

Vulnerable Evacuees

112 Existing Population **46** Existing Households **6** Existing Employees

124 Project Population **49** Project Households **0** Project Employees

Evacuation Vehicle Trips

97 Existing Evacuees

Total Time to Safety (minutes)

17.7

Vulnerable Evacuees

75 Existing Population **29** Existing Households **0** Existing Employees

124 Project Population **49** Project Households **0** Project Employees

Evacuation Vehicle Trips

55 Existing Evacuees **93** Project Only Evacuees

Total Time to Safety (minutes)

17.5

18.1

Vulnerable Evacuees

75 Existing Population **29** Existing Households **0** Existing Employees

124 Project Population **49** Project Households **0** Project Employees

Evacuation Vehicle Trips

55 Existing Evacuees **93** Project Only Evacuees

Total Time to Safety (minutes)

17.5

18.1

Vulnerable evacuees are the population directly in the path of the fire (Red Area <= 60 minute fire progression). They are assumed to start self evacuation immediately, i.e., within 15 minutes of fire.

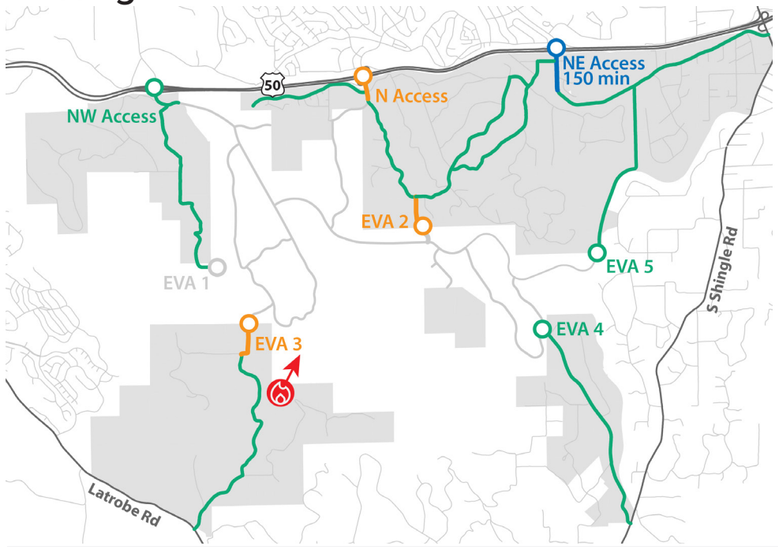
Travel time to safety is defined as the time required for the vulnerable evacuees to exit the red area.

Figure ES4

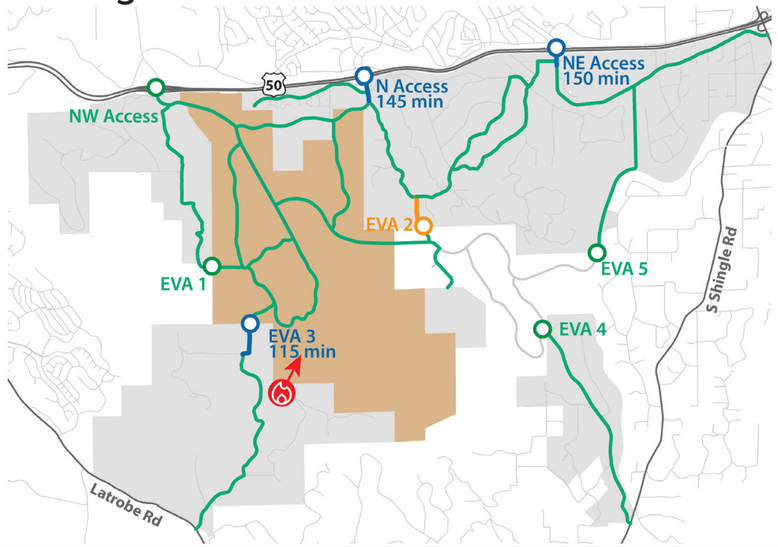
Travel Time to Safety for Vulnerable Evacuees Fire Scenario 16

Evacuation Begins at 1pm

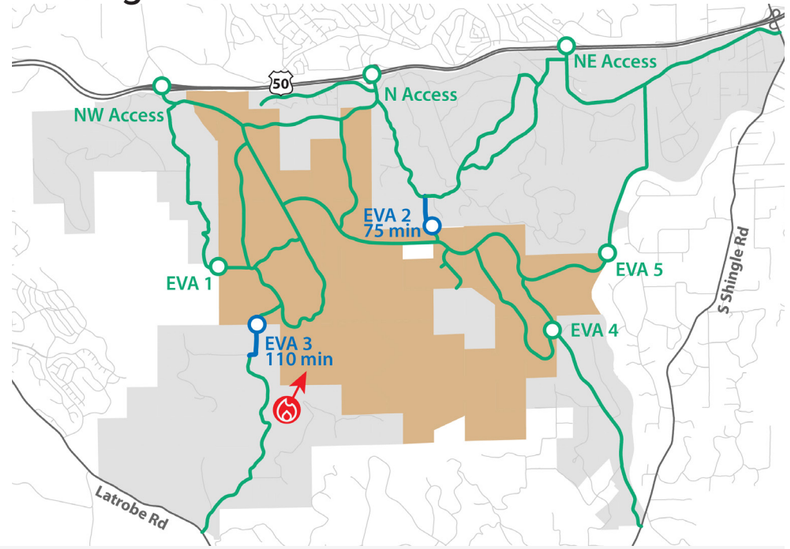
Existing



Existing Plus MVSP



Existing Plus MVSP & LRVSP



Fire Location and Wind Direction

Evacuation Routes: Available | Not Available | Partially Available (minutes)

Existing Evacuation Area

Project Evacuation Area

Evacuees

2,804 Existing Population
1,132 Existing Households
1,090 Existing Employees

8,057 Project Population
3,236 Project Households
1,595 Project Employees

Evacuees

2,804 Existing Population
1,132 Existing Households
1,090 Existing Employees

10,079 Project Population
4,368 Project Households
1,595 Project Employees

Evacuees

2,804 Existing Population
1,132 Existing Households
1,090 Existing Employees

10,079 Project Population
4,368 Project Households
1,595 Project Employees

Evacuation Vehicle Trips

1,596 Existing Evacuees

Evacuation Vehicle Trips

1,596 Existing Evacuees
5,864 Project Only Evacuees

Evacuation Vehicle Trips

1,596 Existing Evacuees
7,080 Project Only Evacuees

Total Time to Evacuation (minutes)

188

Total Time to Evacuation (minutes)

186
189

Total Time to Evacuation (minutes)

186
196

Evacuation window is 180 minutes.

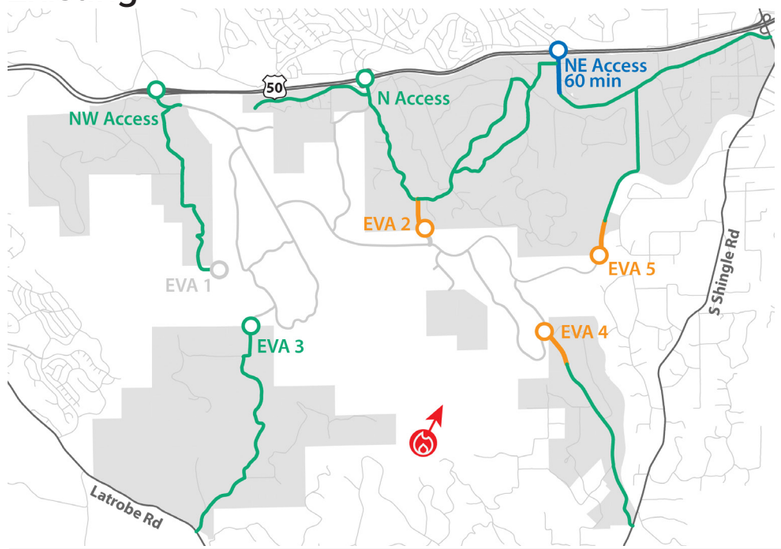
Total time required to evacuate is evacuation window + time required to exit the evacuation area for evacuees starting evacuation within the last 15 minutes.

Figure ES5

Total Travel Time to Evacuate to the Evacuation Area
Fire Scenario 2

Evacuation Window 11am - 2pm

Existing



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

8,057 Project Population | **3,236** Project Households | **1,595** Project Employees

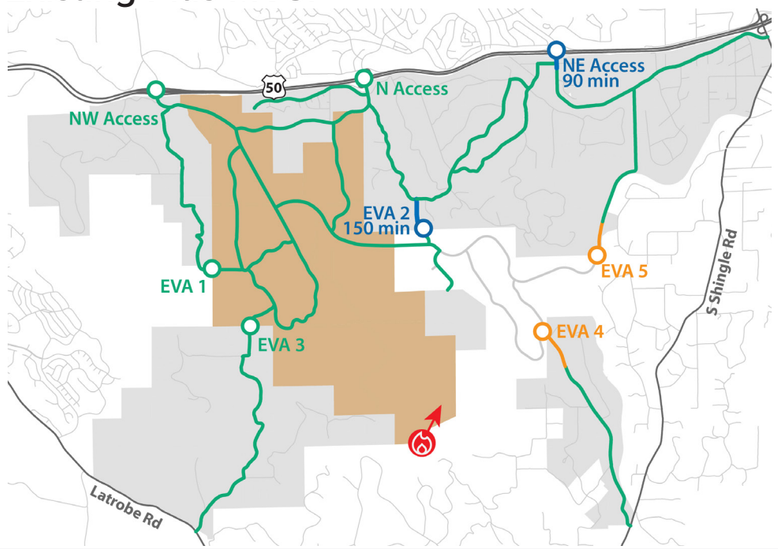
Evacuation Vehicle Trips

1,596 Existing Evacuees

Total Time to Evacuation (minutes)

187

Existing Plus MVSP



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

8,057 Project Population | **3,236** Project Households | **1,595** Project Employees

Evacuation Vehicle Trips

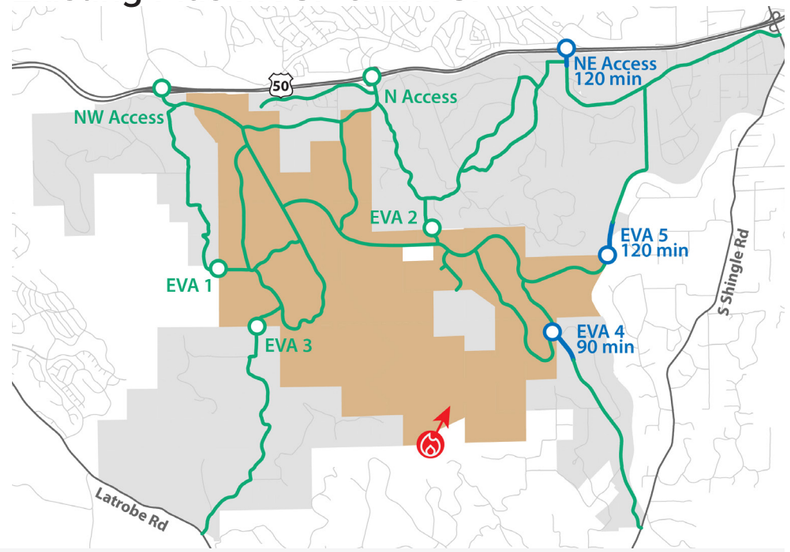
1,596 Existing Evacuees | **5,864** Project Only Evacuees

Total Time to Evacuation (minutes)

192

203

Existing Plus MVSP & LRVSP



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

10,861 Project Population | **4,368** Project Households | **1,595** Project Employees

Evacuation Vehicle Trips

1,596 Existing Evacuees | **7,080** Project Only Evacuees

Total Time to Evacuation (minutes)

187

198

Fire Location and Wind Direction

Evacuation Routes: Available | Not Available | Partially Available (minutes)

Existing Evacuation Area

Project Evacuation Area

Evacuation window is 180 minutes.

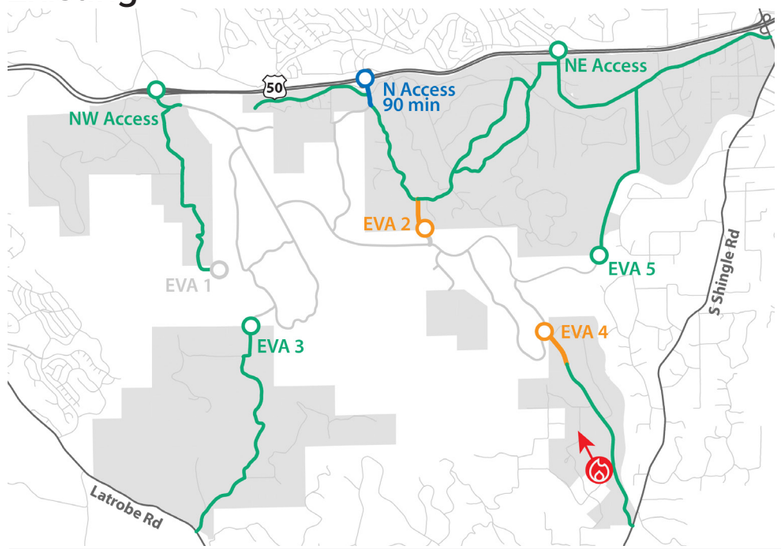
Total time required to evacuate is evacuation window + time required to exit the evacuation area for evacuees starting evacuation within the last 15 minutes.

Figure ES6

Fire Scenario 4

Evacuation Window 11am - 2pm

Existing



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

8,057 Project Population | **3,236** Project Households | **1,595** Project Employees

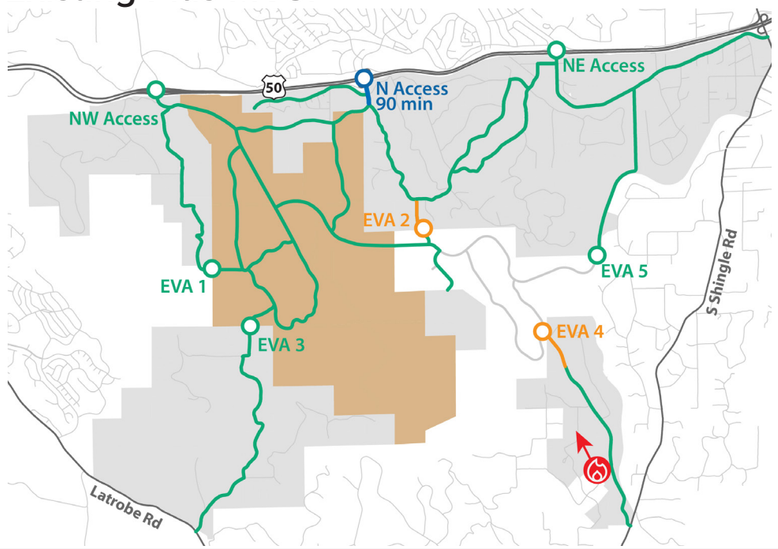
Evacuation Vehicle Trips

1,596 Existing Evacuees

Total Time to Evacuation (minutes)

188

Existing Plus MVSP



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

8,057 Project Population | **3,236** Project Households | **1,595** Project Employees

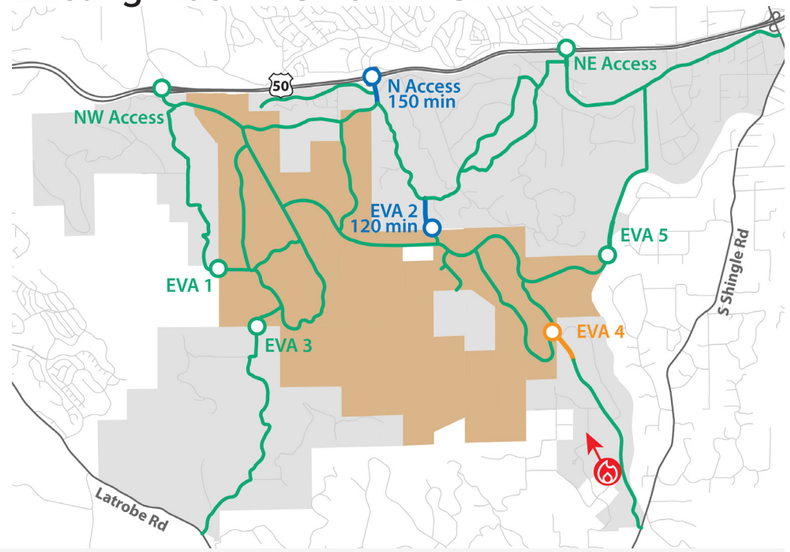
Evacuation Vehicle Trips

1,596 Existing Evacuees | **5,864** Project Only Evacuees

Total Time to Evacuation (minutes)

185
187

Existing Plus MVSP & LRVSP



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

10,861 Project Population | **4,368** Project Households | **1,595** Project Employees

Evacuation Vehicle Trips

1,596 Existing Evacuees | **7,080** Project Only Evacuees

Total Time to Evacuation (minutes)

186
188

Fire Location and Wind Direction

Evacuation Routes: Available | Not Available | Partially Available (minutes)

Existing Evacuation Area

Project Evacuation Area

Evacuation window is 180 minutes.

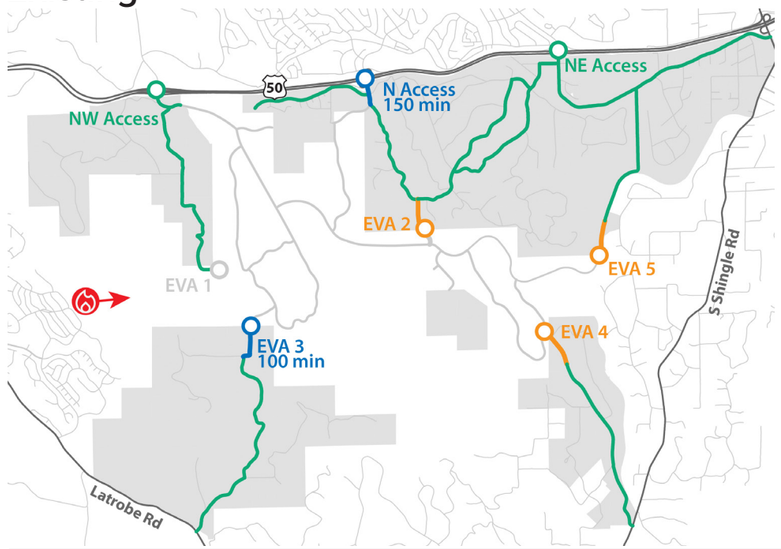
Total time required to evacuate is evacuation window + time required to exit the evacuation area for evacuees starting evacuation within the last 15 minutes.

Figure ES7

Fire Scenario 7

Evacuation Window 7am - 10am

Existing



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

8,057 Project Population | **3,236** Project Households | **1,595** Project Employees

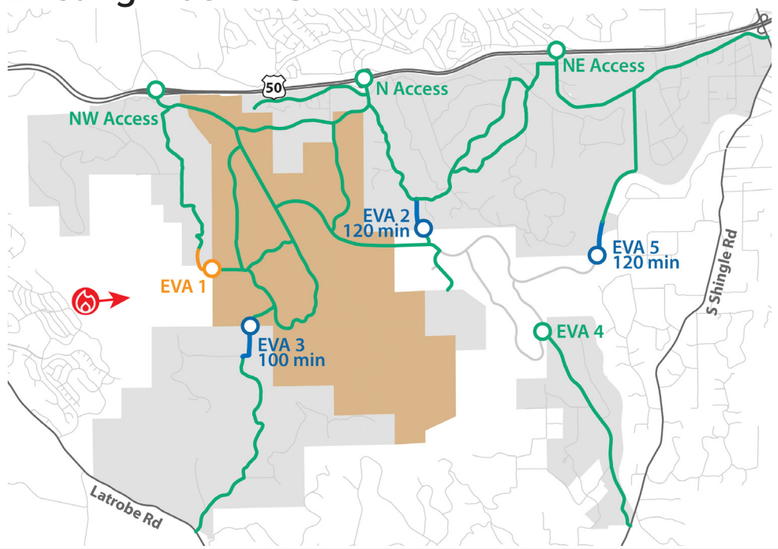
Evacuation Vehicle Trips

1,596 Existing Evacuees

Total Time to Evacuation (minutes)

188

Existing Plus MVSP



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

8,057 Project Population | **3,236** Project Households | **1,595** Project Employees

Evacuation Vehicle Trips

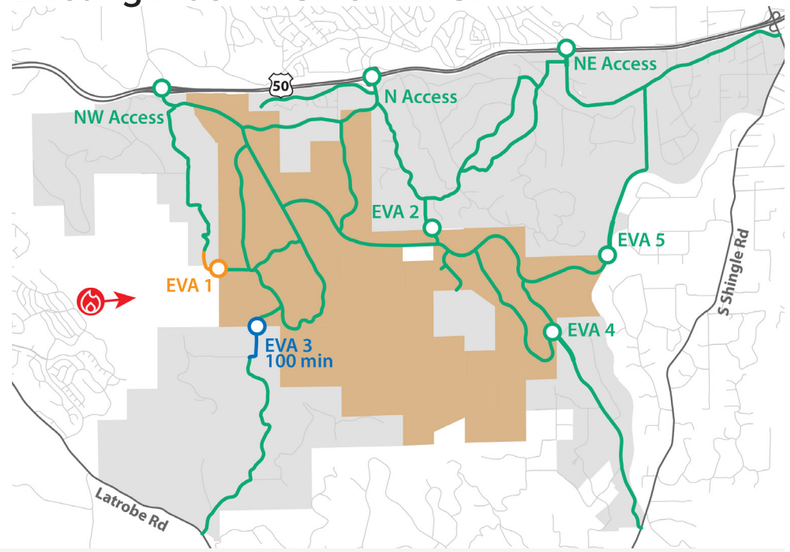
1,596 Existing Evacuees | **5,864** Project Only Evacuees

Total Time to Evacuation (minutes)

186

186

Existing Plus MVSP & LRVSP



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

10,861 Project Population | **4,368** Project Households | **1,595** Project Employees

Evacuation Vehicle Trips

1,596 Existing Evacuees | **7,080** Project Only Evacuees

Total Time to Evacuation (minutes)

186

188

Fire Location and Wind Direction

Evacuation Routes: Available | Not Available | Partially Available (minutes)

Existing Evacuation Area | Project Evacuation Area

Evacuation window is 180 minutes.

Total time required to evacuate is evacuation window + time required to exit the evacuation area for evacuees starting evacuation within the last 15 minutes.

Figure ES8

Fire Scenario 16

Evacuation Window 1pm - 4pm

1. Introduction

This report presents the results of the wildfire evacuation time analysis conducted for the Village of Marble Valley Specific Plan Project (hereafter referred to as "Marble Valley Specific Plan" or "Project") to comply with the requirements of the California Environmental Quality Act (CEQA), guidance provided by the Attorney General's office, and applicable/published court decisions.

This chapter describes the purpose of this document, describes the Project, summarizes the fire risk and behavior report that informs the evacuation analysis, outlines guidance from the Attorney General guidance and CalFire Regulations, defines fire hazard severity zones, summarizes consultation with local agency staff, discusses the limitations of the emergency evacuation assessment, and outlines the report organization.

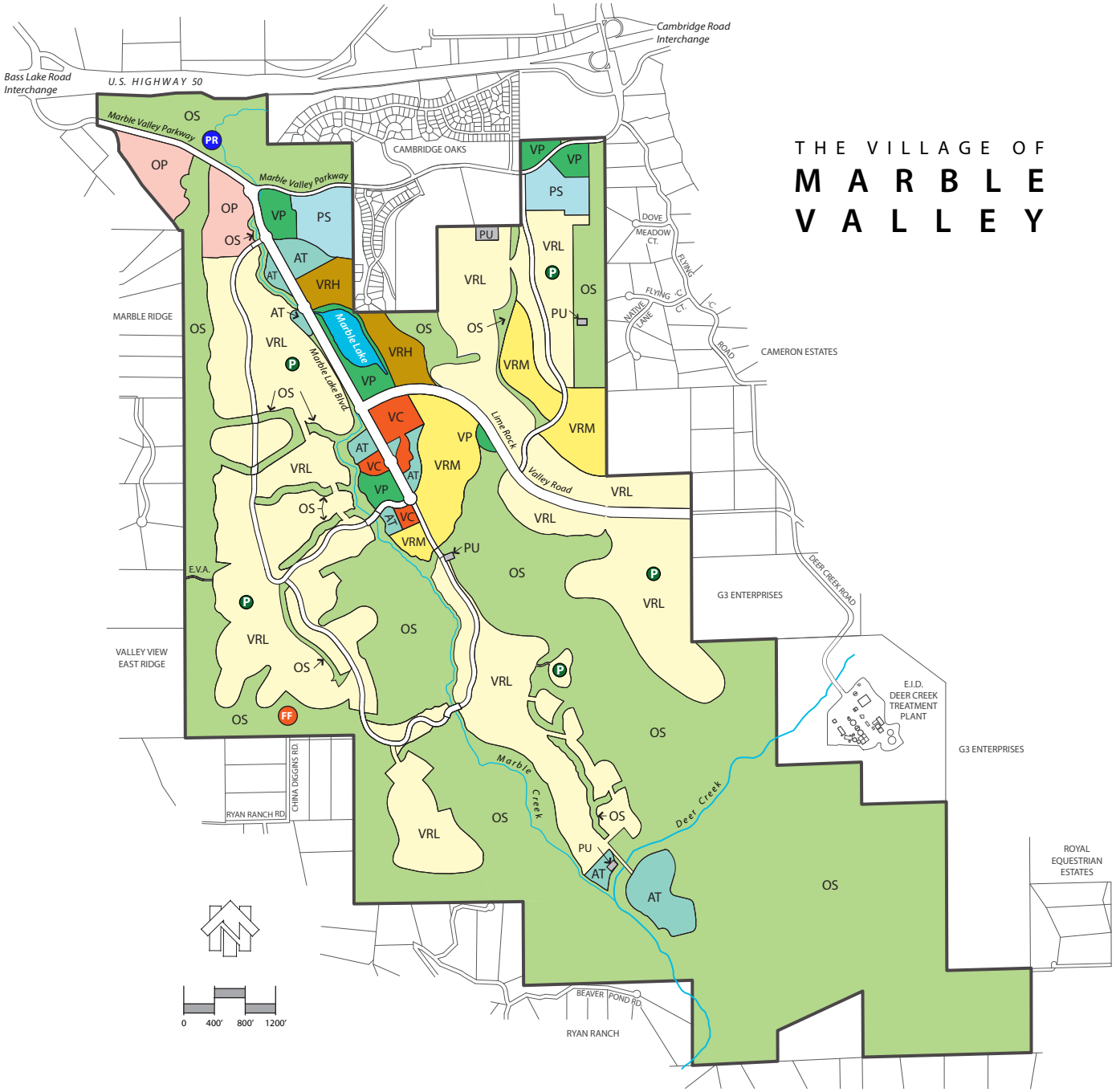
Purpose

The purpose of this wildfire evacuation assessment is to address CEQA guidance released by the Attorney General in response to recent California Environmental Quality Act (CEQA) court decisions whereby EIRs were deemed to be inadequate due to the lack of a sufficient analysis around the Project's effect on the ability of the local community to evacuate due to a wildfire or similar disaster.

Project Description

The Project includes the development of 3,236 dwelling units, 87 acres of public facility / recreational use, 475,000 square feet of commercial use, 35 acres for two public schools (K5 / K8), 1,284 acres of open space, 55 acres of agricultural use, and 61 acres of new road impact areas and future right-of-way. Planned improvements are proposed for 1,875 acres of the 2,341-acre site. Most of the development would occur north of Deer Creek. The proposed project expands the Community Region of El Dorado Hills to include the Project area.

US 50 access will be through the US 50 / Bass Lake Road and US 50 / Cambridge Road interchanges. Marble Valley Parkway is proposed as a continuous roadway connecting the Bass Lake Road and Cambridge Road interchanges. A portion of Marble Valley Parkway is outside the plan area. Marble Lake Boulevard, which is planned as a four- to two-lane roadway, will provide the primary access roadway serving the project. Marble Lake Boulevard will be four lanes from US 50 to just south of Marble Valley Parkway. Major intersections along Marble Lake Boulevard are planned to have roundabout control. Lime Rock Valley Boulevard will extend east of Marble Lake Boulevard as a two-lane roadway. **Figure 1** shows the Project and backbone roadway network.



N:\2022 Projects\4228.00_Wildfire_Evac_Study_Marble_Valley\Graphics\AI

Figure 1

Proposed Project

Wildland Evacuation Fire Risk and Behavior Report

Firesafe Planning Solutions prepared a wildland fire risk report for the Village of Marble Valley Specific Plan, *Wildland Fire Evacuation Risk Report, Fire Behavior – The Village of Marble Valley Project*, to assess the risk related to wildfires and the intensity of a wildfire approaching the Project site and covers the following topics:

- Current Environmental Conditions – Identifies the location of the project site and adjacent wildland and agencies responsible for fire protection. The fire risk and behavior report presents the existing vegetation on and near the Project beginning on Page 9.
- Wildfire Hazard and Risk Analysis – Analyzes the likelihood and intensity of wildfire hazards and the risk/vulnerability of the project to wildfire hazards. The fire risk and behavior report discusses the wildland fuels on and near the Project beginning on Page 29.
- Project Impacts Related to Wildland Fires – Analyzes the project design relative to wildfire events and incorporates the fire history of the project area, weather (i.e., temperature, relative humidity, wind), fuel (i.e., wildland and built environment), geography (i.e., slope, aspect, elevation), vegetation and fuels management included in the proposed Project, and historical fire activity. The fire risk and behavior report discusses the effect of the Project on wildland fire behavior beginning on Page 50.
- Water Supply and Infrastructure – Describes the existing and proposed water supply and infrastructure, beginning on Page 69.
- Fire Protection Resources – Identifies the existing and proposed fire protection resources available to serve the proposed Project, beginning on Page 72..
- Risk Reduction Measures – Outlines risk reduction measures required by code, ordinance, and standards as well as additional elements of the proposed Project that reduce wildfire risk for the Project site and existing communities. This discussion begins on Page 78.

This wildland fire risk report provides the results of that assessment and objective hazard and risk assessments that can be used to establish the community risk reduction measures (hazard less reduction measures = risk) that are equal to or greater than the hazards that would be encountered in a worst-case scenario. The analysis considers existing/future vegetative interface fuels, topography, fire, and weather conditions during extreme fire conditions. The report provides results of computer modeling that measured the fire intensity, flame lengths, rate of spread, and fire travel distance (arrival times) from worst-case scenario wildfires in both the extreme (Diablo wind) and the predominant (Onshore wind) wind conditions.

The results of fire behavior modeling have been incorporated into the analysis of the interfaces of the project with adjacent wildlands and the potential ingress/egress routes used by the Project site daily and

under emergency conditions where evacuation might be necessary. **Appendix A** includes the *Wildland Fire Evacuation Risk Report, Fire Behavior – The Village of Marble Valley Project*.

Attorney General Guidance

On October 10, 2022, the Attorney General's office published *Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act* (AG Guidance). The AG Guidance is designed to help lead agencies comply with CEQA when considering whether to approve projects in wildfire-prone areas. The guidance provides "*suggestions for how best to comply with CEQA when analyzing and mitigating a proposed project's impacts on wildfire ignition risk, emergency access, and evacuation*."

The AG Guidance describes CEQA's requirements in the following two analysis categories.

- Analyzing Impact on Wildfire Risk
- Analyzing Impact on Evacuation & Emergency Access

Section IV.B of the AG guidance outlines variables that should be considered in the analysis of impact on wildfire risk related to the following project characteristics.

- Project Density
- Project Location in the Landscape
- Water Supply and Infrastructure

This information is included in the fire risk and behavior report.

Section IV.C of the AG Guidance contains the following recommendations regarding evacuation and emergency access. Specifically, evacuation modeling and analysis should include the following:

- Evaluation of the capacity of roadways to accommodate project and community evacuation and simultaneous emergency access.
- Assessment of the timing for evacuation.
- Identification of alternative plans for evacuation depending upon the location and dynamics of the emergency.
- Evaluation of the project's impact on existing evacuation plans.
- Consideration of the adequacy of emergency access, including the project's proximity to existing fire services and the capacity of existing services.

- Traffic modeling to quantify evacuation time estimates under various likely scenarios.

The evacuation analysis contained in this report addresses the recommendations in Section IV.C of the AG Guidance.

CalFire Regulation Compliance

The El Dorado Hills Fire Department is the current service provider on the west side of the Project and the El Dorado County Fire Protection District is the current service provider to the east side of the Project.

If approved, the LAFCO will examine the current boundaries and adjust them to provide for the "natural service provider" based on each agency's ability to provide the services to the new areas. The Project Site includes a fire station site, which may be a relocation of Fire Station 92 (Ryan Ranch) that is currently unstaffed. **Appendix A** includes the *Wildland Fire Evacuation Risk Report, Fire Behavior – The Village of Marble Valley Project*, provides additional discussion of fire protection resources.

Overall wildland fire jurisdiction is classified as FRA (Federal Responsibility Area), SRA (State Responsibility Area) or LRA (Local Responsibility Area). FRA is federal land, (i.e., a national forest). SRA is land with the State of California that the state has the primary responsibility for wildland fire protection. CalFire provides that service for SRA in El Dorado County. LRA is land within incorporated cities and unincorporated land within the county that does not meet the criteria for inclusion in the SRA (i.e., normally developed to a density that makes it urban).

The Project is located on lands designated as a State Responsibility Area (SRA), where CalFire is the primary emergency response agency responsible for wildland fire protection. As a result, the Project must comply with state requirements for wildfire protection and safety, as reviewed and approved by CalFire. These state requirements include State Minimum Fire Safe Regulations, California Building and Residential Codes (Materials and Construction Methods for Exterior Wildfire Exposure), and California Fire Code Chapter 49 (Requirements for Wildland-Urban Interface Areas).

Fire Hazard Severity Zones

Fire Hazard Severity Zones (FHSZ) are currently based on potential fuels, fire weather conditions, and terrain and represent potential fire hazard exposure to structures and other human infrastructure assets. FHSZ areas are adopted as a Title 14 regulation, fulfill the obligations laid out in Public Resources Code (PRC) Sections 4201-04, and are essential in various fire safety regulations, building construction standards, and real estate hazard disclosure requirements. These zones were determined in November 2007 for SRA and September 2008 for LRA and are currently in the process of being revised by CalFire (CalFire Website). The 2007 Fire Severity Zone Map is provided in the Reference section of the *Wildland Fire Evacuation Risk Report, Fire Behavior – The Village of Marble Valley Project*, in **Appendix A**. New "draft" maps are out for review for the SRA areas for the entire state. As proposed in the new maps (November 21, 2022), the Protect site and adjacent lands are classified as Very High and High Fire Hazard

Severity Zones. Adoption of the new maps is anticipated in 2024. Changes (due to the comment period) are not expected for the Project site.

Local Agency Consultation

The following emergency service providers and agency staff were consulted during the preparation of the fire behavior analysis and the evacuation assessment:

- El Dorado Hills Fire Department – Fire Chief, Maurice Johnson and Division Chief/Fire Marshal, Chrishana Fields.
- El Dorado County Fire Protection District – Fire Chief, Tim Cordero.
- El Dorado County Office of Emergency Services (OES) – Sergeant, Leslie Schlag.
- CalFire (Amador/El Dorado Unit) – Battalion Chief Wildfire Resiliency Program, Jeff Hoag.
- El Dorado County Department of Transportation – Supervising Civil Engineer, Adam Bane and Senior, Civil Engineer Dave Spiegelberg.

On November 10, 2022, a coordination meeting was held to review the input assumptions to the fire behavior analysis, including existing/future vegetative interface fuels, topography, fire, weather conditions, evacuation routes (primary routes and emergency vehicle access), and the evacuation area. The input assumptions and feedback received during this coordination meeting were incorporated in the analysis presented in the *Wildland Fire Evacuation Risk Report, Fire Behavior – The Village of Marble Valley Project* (**Appendix A)**, and the evacuation time estimates presented in this report.

In February 2023, coordination with El Dorado County Department of Transportation (DOT) was initiated to identify input parameters for the evacuation time estimates assessments. These parameters included identification of appropriate fire scenarios, time period for evacuation analysis, evacuation area, evacuation routes, data on recent evacuation events, and availability of fire protection and evacuation plans. DOT delegated input on these parameters to the emergency providers (e.g., Fire Departments and County OES). Email correspondence on February 23, 2023.

Coordination with El Dorado County Office of Emergency Services (Sergeant Leslie Schlag) included a coordination meeting on April 19, 2023, to discuss post evacuation experience to support the evacuation time estimates, including the various stages of evacuation and the time required for evacuations. Email correspondence on June 7, 2023, confirmed Tahoe Basin and South Lake Tahoe evacuation performance during the Caldor Fire. Key input relevant to the evacuation time estimate assessment included the duration of the evacuations in the Tahoe Basin during the Caldor Fire. The evacuation of the Tahoe Basin was planned and conducted in stages. The evacuation of the entire Tahoe Basin took about 10 hours, and the staged evacuation of the City of South Lake Tahoe took approximately three hours, with over two and a half hours of stop-and-go conditions.

In addition to local agency consultation, a survey of first responders and emergency service professionals that had participated in the Camp Fire (Butte County) response or currently work in the region was circulated to gather travel time estimates on Skyway (i.e., the primary evacuation route serving the City of Paradise) between the City of Paradise and the City of Chico during the Camp Fire. A key finding of this survey, relevant to the evacuation time estimate assessment, was the duration of the evacuation. Based on the responses, during the Camp Fire, roughly 30,000 to 50,000 people evacuated, and first responders observed two to five hour evacuation times for evacuees on Skyway to get from Neal Road in the City of Paradise to Bruce Road in the City of Chico. Full survey responses can be found in **Appendix B**.

Disclaimer – Limitations of Emergency Evacuation Assessment

Emergency evacuations can occur due to a variety of events. Any emergency movement involves some uncertainty because individual behavior depends on personal risk assessment for the specific type of emergency event and associated evacuation instructions that will be specific to the context of that event. As such, this assessment is intended to provide a broad understanding of the travel time expectations during an evacuation scenario and what effect the Marble Valley Specific Plan project will have on those times. The analysis does not provide a guarantee that evacuations will follow modeling that is used for analysis purposes, nor does it guarantee that the findings are applicable to any or all situations. The analysis will isolate the general effect of the project on evacuation travel times.

Moreover, as emergency evacuation assessment is an emerging field, there is no established standard methodology and there is no established standard for the appropriate length of time to evacuate an area. Fehr & Peers has adopted existing methodologies in transportation planning that, in our knowledge and experience, we believe are the most appropriate. Nevertheless, such methodologies are necessarily also limited by the tools and data available, and by current knowledge and state of the practice.

This assessment is intended to help the county better understand the project's effect on evacuation travel time. As such, the results are based on a set of scenarios and modeling. Fehr & Peers cannot and does not guarantee the efficacy of the analysis beyond a general assessment of the project's effect on evacuation travel time. Any other use of the information would be beyond our professional duty and capability given the uncertainty of evacuation events and analysis limitations noted above.

Report Organization

The following chapters are included in this report to address the Attorney General's guidelines for evaluating evacuation impacts of the proposed Project:

Chapter 1 – Introduction includes the purpose of this document, Project description, consultation with local agency staff, discusses the limitations of the emergency evacuation assessment, and outlines the report organization.

Chapter 2 – Evacuation Scenarios describes the evacuation scenarios used to analyze the evacuation time of the Project and the Project's effect on the ability of the local community to evacuate due to a wildfire or similar disaster.

Chapter 3 – Methodology describes the evacuation time methodology, including the evacuation area and evacuation routes, the evacuation model, and evacuation vehicle trip demand.

Chapter 4 – Evacuation Time Estimates describes the evacuation time results for various evacuation scenarios.

2. Evacuation Scenarios

This chapter presents the study area and evacuation scenarios used for the evacuation assessment.

Fehr & Peers, in coordination with Firesafe Planning Solutions, emergency service providers, and fire agencies identified study area and evacuation routes for analysis, which are shown on **Figure 2**.

The evacuation assessment includes the following four development scenarios:

- No Project – Represents existing conditions (i.e., existing residents).
- Marble Valley Specific Plan – Represents existing conditions with buildout of the Marble Valley Specific Plan.
- Lime Rock Valley Specific Plan – Represents existing conditions with buildout of the Lime Rock Valley Specific Plan.
- Marble Valley & Lime Rock Valley Specific Plans – Represents existing conditions with buildout of both the Marble Valley and Lime Rock Valley Specific Plans.

Study Area

The study area, which was developed through consultation with emergency service providers and agency staff as outlined above, includes the area generally bounded by US 50, Latrobe Road, and South Shingle Road. Labeled as evacuation corridors, these facilities represent the destination for evacuees when considering the evacuation of the entire study area. The shaded parcels in **Figure 2** represent the area that would potentially be evacuating simultaneously with the Project evacuees and may be using the same routes to exit the evacuation area. Actual evacuation areas will depend on the origin and behavior characteristics of the fire event and the evacuation order issued in response to the event.

Evacuation Routes

As shown in **Figure 2**, the Project site includes two general use access points that will be used daily for ingress and egress that will connect to US 50 at the Bass Lake Road and Cambridge Road interchanges. Five EVA (Emergency Vehicle Access) points are identified, with two primarily serving the Marble Valley site and three primarily serving the Lime Rock site, but all of which could be used by either project. The five EVAs are identified below:

- EVA 1 – Connection to Diablo Trail/Marble Ridge Road under existing conditions with a potential future connection to the approved East Ridge Village project.
- EVA 2 – Connection to Deer Creek Road (gate controlled neighborhood).
- EVA 3 – Connection to China Diggins Road/Ryan Ranch Road.

- EVA 4 – Connection to Amber Fields Drive (gate controlled neighborhood).
- EVA 5 – Connection to Shingle Lime Mine Road.

The evacuation analysis assumes that all five EVAs outlined above are available for evacuation with the use of an EVA depending on the specific fire scenario being analyzed.

Additional future EVAs would be provided through the approved East Ridge Village project that would provide access to Latrobe Road and to Valley View Parkway. The future EVAs would also be available to the East Ridge Village and Blackstone communities for evacuation (i.e., to the east) and access by emergency responders.

All EVA roadways will be required to meet Public Resources Code (PRC) Section 4290 requirements (e.g., road width, compaction rating, slope, surface material, gates, etc.), which may require off-site improvements to bring existing roadways up to standard.

Evacuation Window

The evacuation time window is the time between when the evacuation order is received, and the time evacuees must begin their evacuation. This does not represent the total time required to evacuate the study area as the total time needed for evacuation will be longer due to distance traveled to exit the evacuation area and congestion.

For this study, a 3-hour evacuation window (i.e., 180 minutes) is used based on the input received from El Dorado County Office of Emergency Services (Sergeant Leslie Schlag), regarding the time to evacuate the City of South Lake Tahoe during the Caldor Fire, and the survey of first responders and emergency service professionals that participated in the Camp Fire in Butte County.

The evacuation window does not apply to self-evacuation, which represents the evacuation of populations in the direct path of the fire where advanced notice is not available due to the fire's progression.

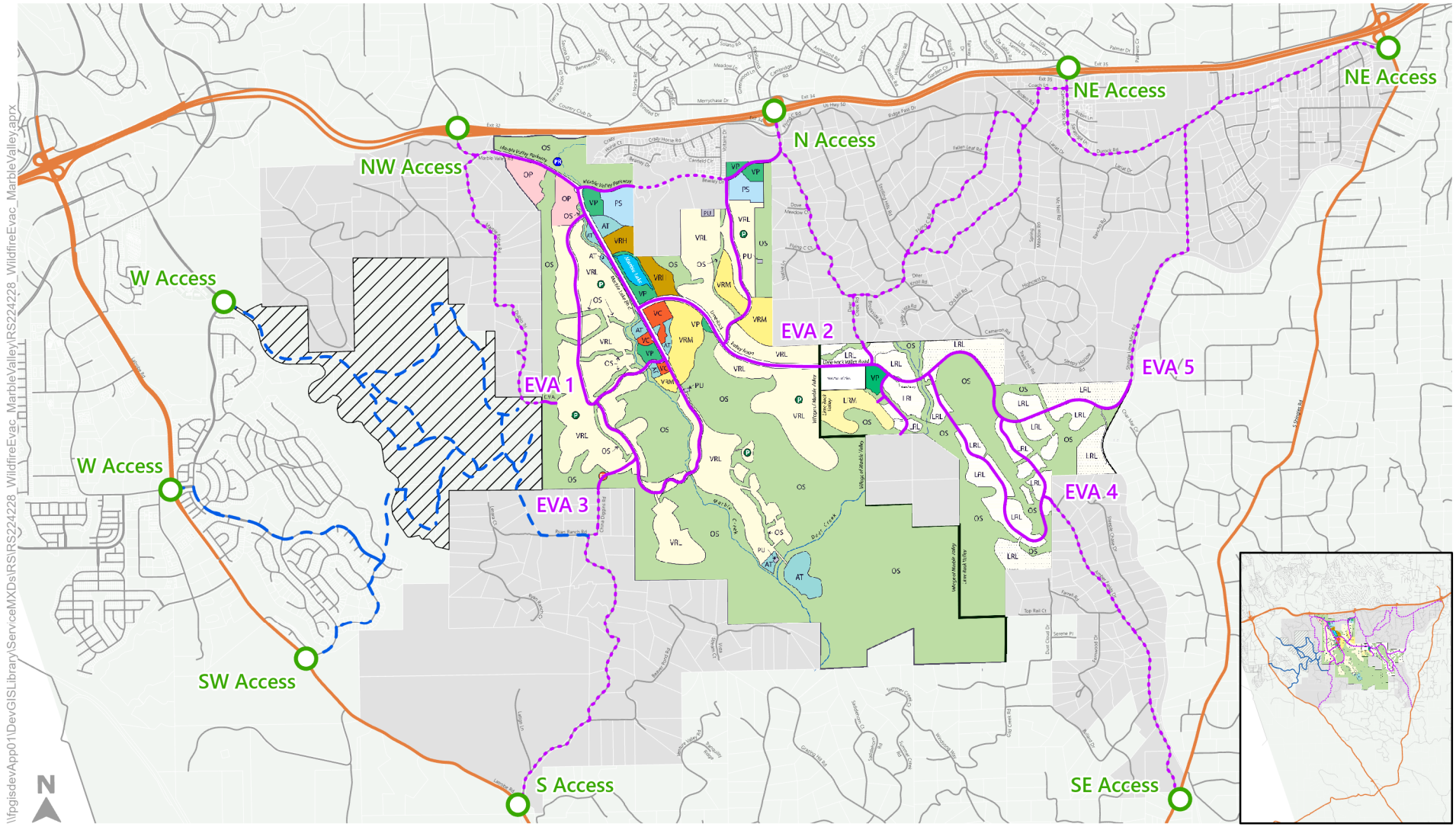


Figure 2

* Evacuation area shown are "potential" areas. Actual evacuation areas with depend on the origin and behavior characteristics of the fire event and the evacuation order issues in response to the event.

Study Area and Evacuation Routes

Study Fire Scenarios

Firesafe Planning Solutions conducted fire behavior modeling for 16 locations surrounding the study area and included different wind direction and speed assumptions, resulting in a total of 33 fire scenarios. Each scenario also includes analysis for no project, with Marble Valley, with Lime Rock Valley, and with Both projects resulting in a total of 132 scenarios. **Figure 3** shows the fire behavior modeling locations. Please refer to **Appendix A,** which includes the *Wildland Fire Evacuation Risk Report, Fire Behavior – The Village of Marble Valley Project*, which summarizes the detailed results of the fire behavior modeling for the 132 scenarios. Each scenario includes how long it will take the fire to reach each evacuation route and the routes that will not be available during a fire scenario.

Fehr & Peers screened all the fire scenarios developed by Firesafe Planning Solutions to identify a worst case set of fire scenarios to use for the evacuation time estimates. The screening considered the availability of evacuation routes and affected area under existing (i.e., no Project) conditions and existing condition with the addition of the Project. Based on this screening, the fire scenarios developed from Locations 2, 4, 7, and 16, shown on **Figure 3**, were selected for the evacuation time estimate assessment. These four scenarios were selected because they would produce the fewest routes available for evacuation for the shortest amount of time. The evacuation performance of the other fire scenarios would be similar to or better than these scenarios. Therefore, detailed analysis is not necessary and the their performance can be inferred using the results of the worst case fire scenarios. **Figures 4 through 7** show the progression of each fire event over time for Fire Scenarios 2, 4, 7, and 16, respectively, for the following analysis conditions:

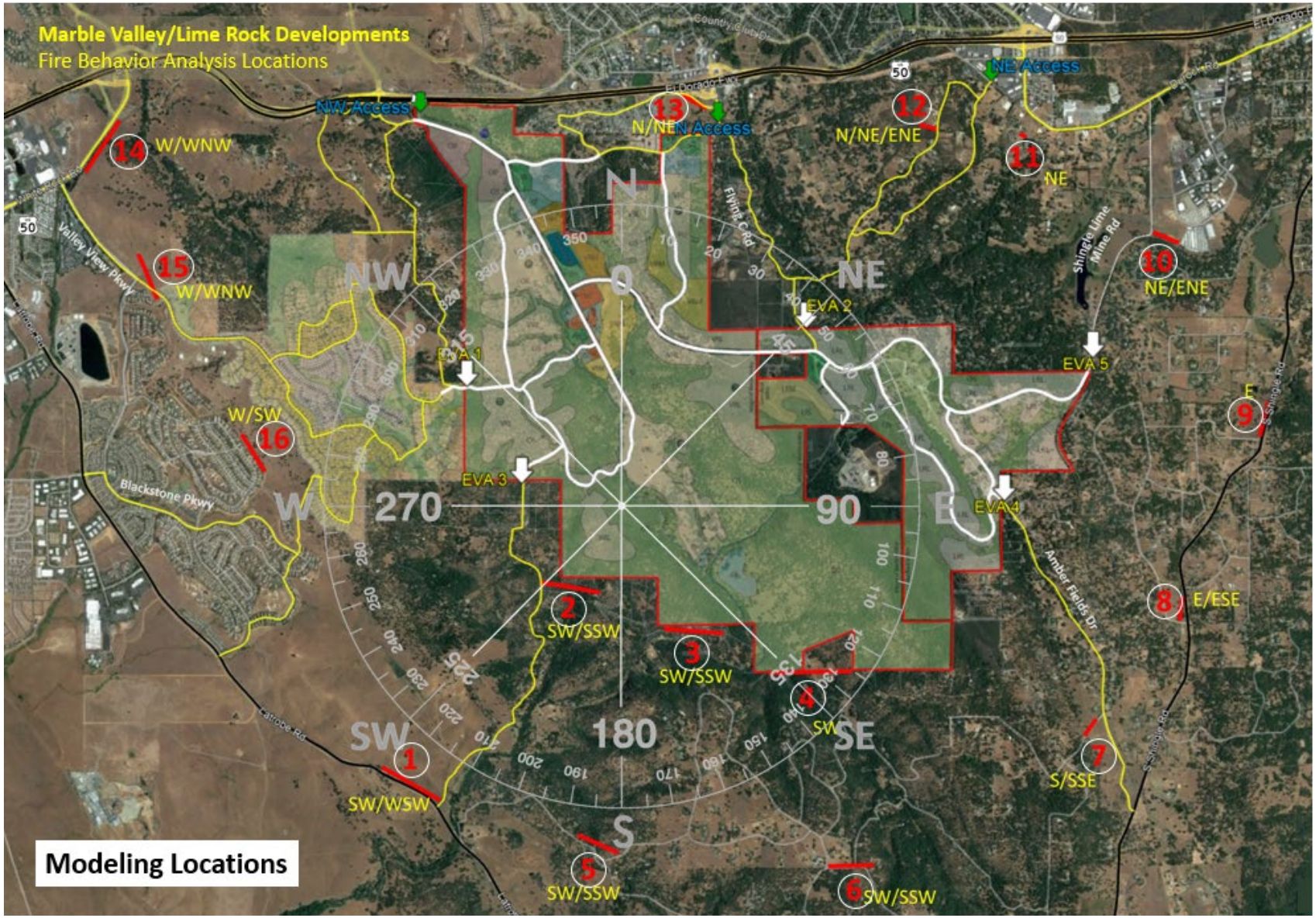
- No Project – Represents existing conditions (i.e., existing residents).
- Marble Valley Specific Plan – Represents existing conditions with buildout of the Marble Valley Specific Plan.
- Lime Rock Valley Specific Plan – Represents existing conditions with buildout of the Lime Rock Valley Specific Plan.
- Marble Valley & Lime Rock Valley Specific Plans – Represents existing conditions with buildout of both the Marble Valley and Lime Rock Valley Specific Plans.

Table 1 summarizes the fire analysis scenarios, including the fire origin, the wind direction, and wind speed. For each fire scenario, **Table 1** summarizes the availability of each evacuation route and the time the route is available for evacuation. Each evacuation route is categorized as follows:

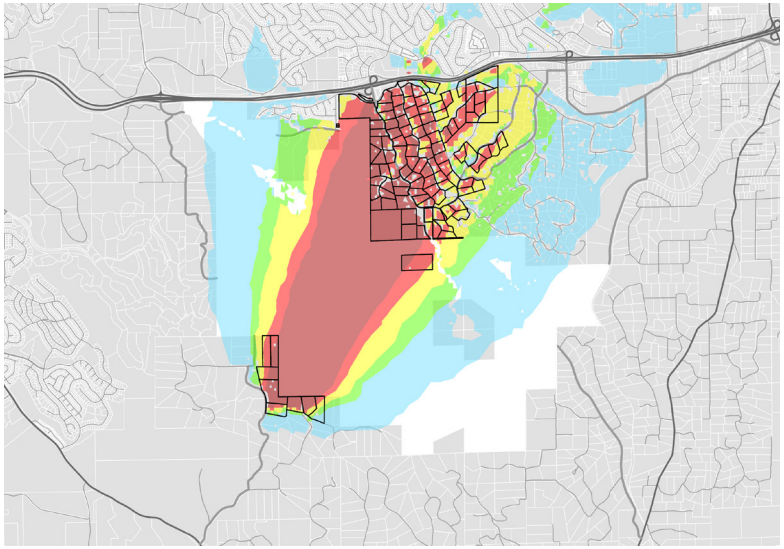
- Available Routes: Evacuation routes available for more than 180 minutes.
- Partially Available Routes: Evacuation routes available less than 180 minutes but more than 30 minutes. For these routes, the time the route will remain available is identified.
- Not Available Routes: Evacuation routes available for 30 minutes or less.

The scenario numbers and names are consistent with the fire behavior modeling scenarios conducted by Firesafe Planning Solutions.

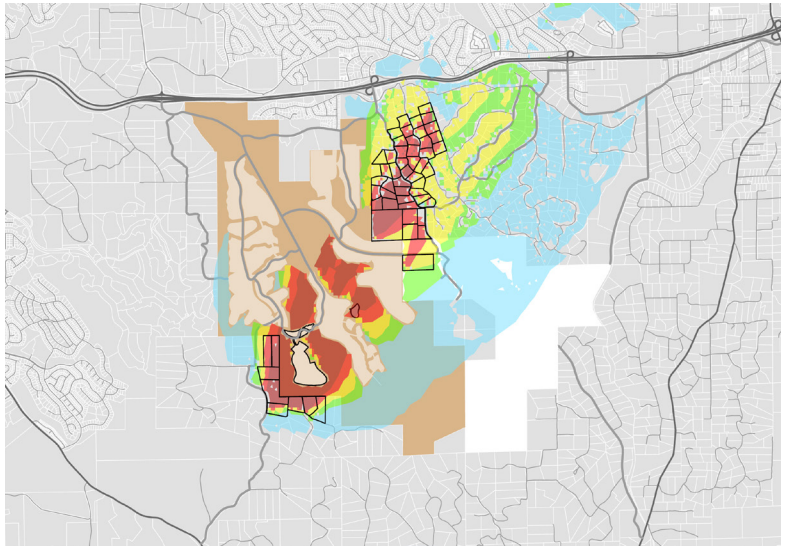
Figure 3: Fire Behavior Modeling Locations



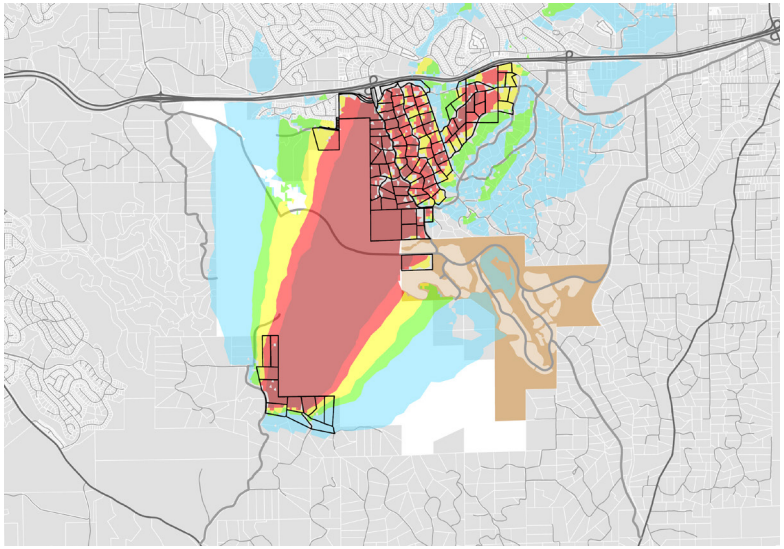
Existing - 2A



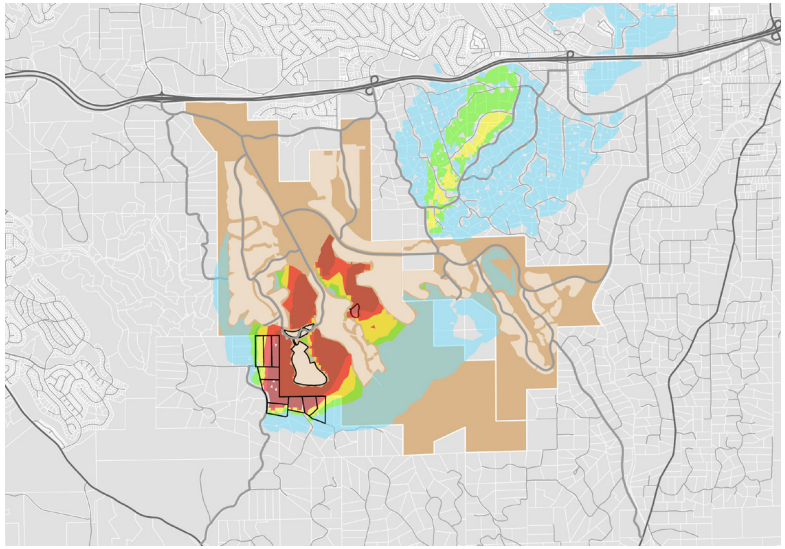
Existing Plus MVSP - 2B



Existing Plus LRSVP - 2C



Existing Plus MVSP & LRSVP - 2D



Fire Progression (minutes):

30 60 120

180 240

Project Area

Project Residential Area

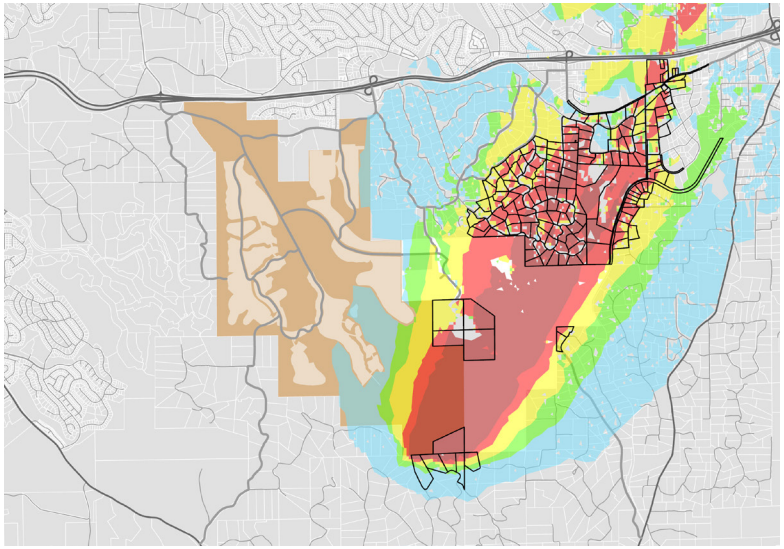
Vulnerable Parcels

Evacuation Routes

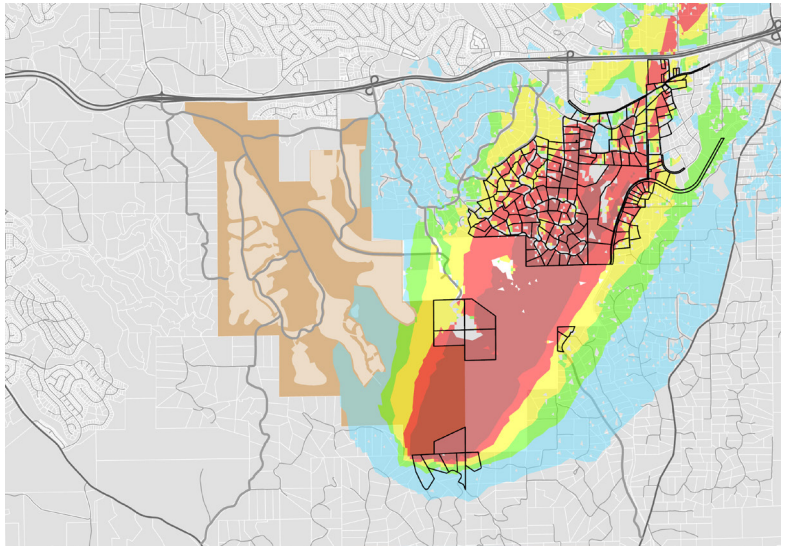
Figure 4

Fire Analysis Scenario 2

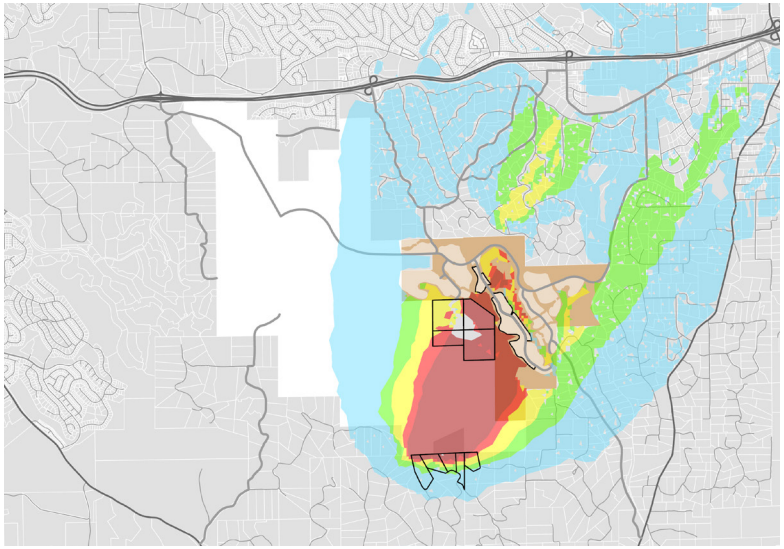
Existing - 4A



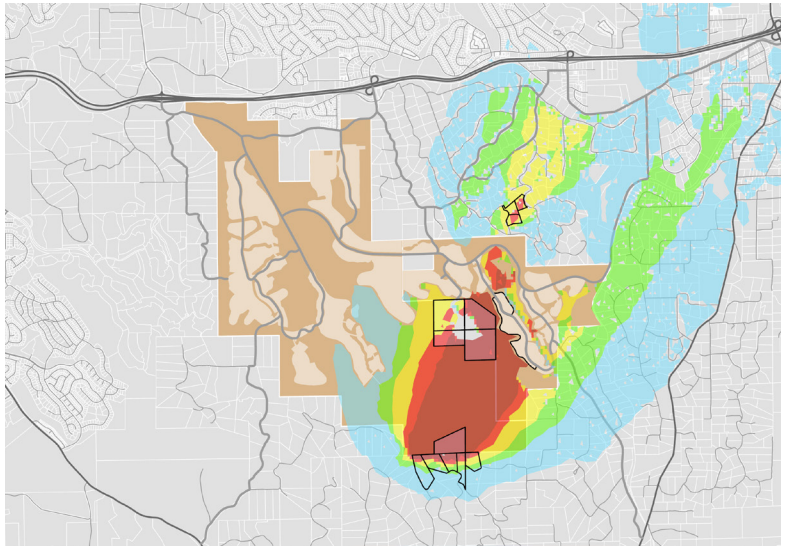
Existing Plus MVSP - 4B



Existing Plus LRSVP - 4C



Existing Plus MVSP & LRSVP - 4D



Fire Progression (minutes):

30 60 120

180 240

Project Area

Project Residential Area

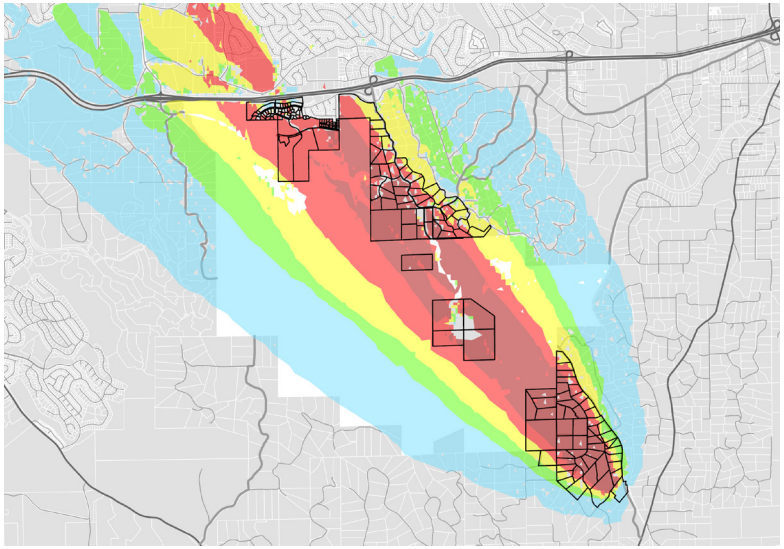
Vulnerable Parcels

Evacuation Routes

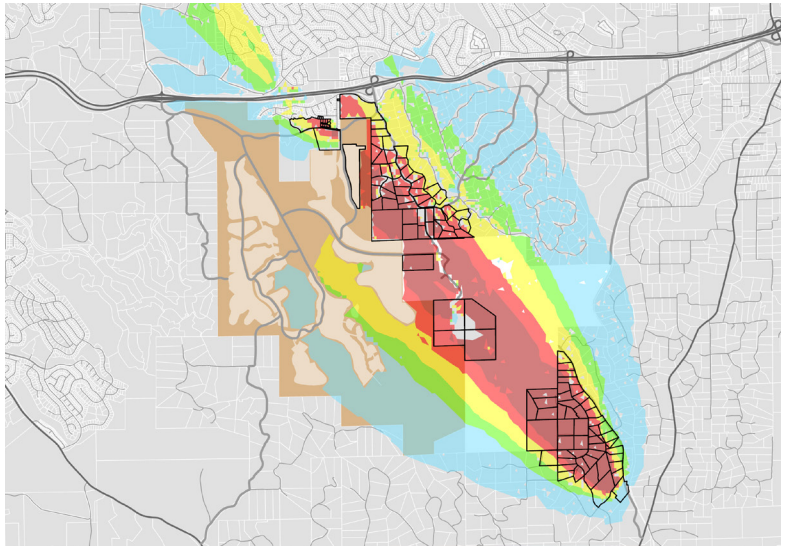
Figure 5

Fire Analysis Scenario 4

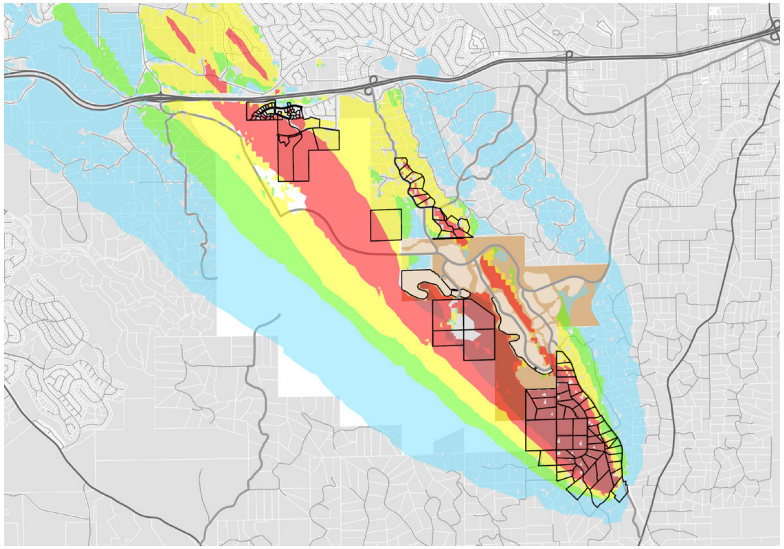
Existing - 7E



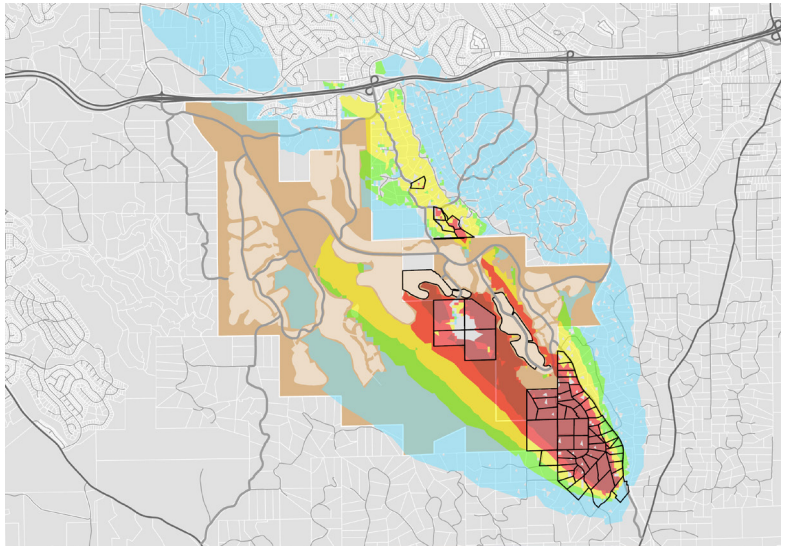
Existing Plus MVSP - 7F



Existing Plus LRSVP - 7G



Existing Plus MVSP & LRSVP - 7H



Fire Progression (minutes):

30 60 120

180 240

Project Area

Project Residential Area

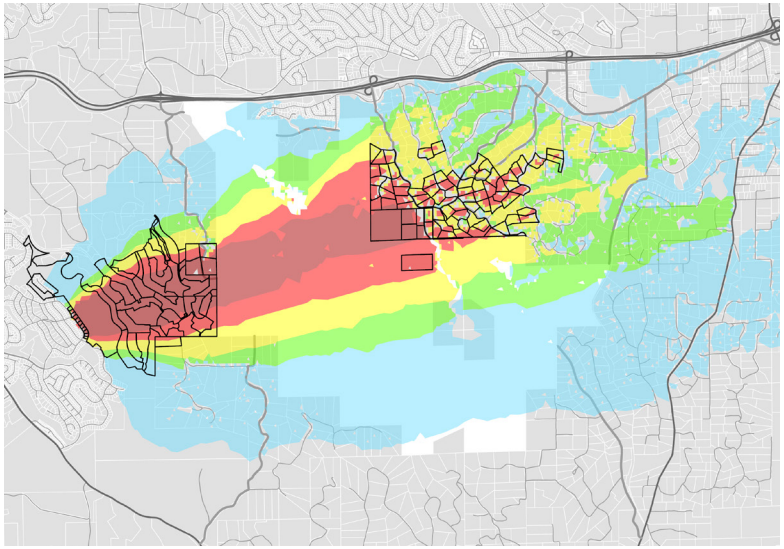
Vulnerable Parcels

Evacuation Routes

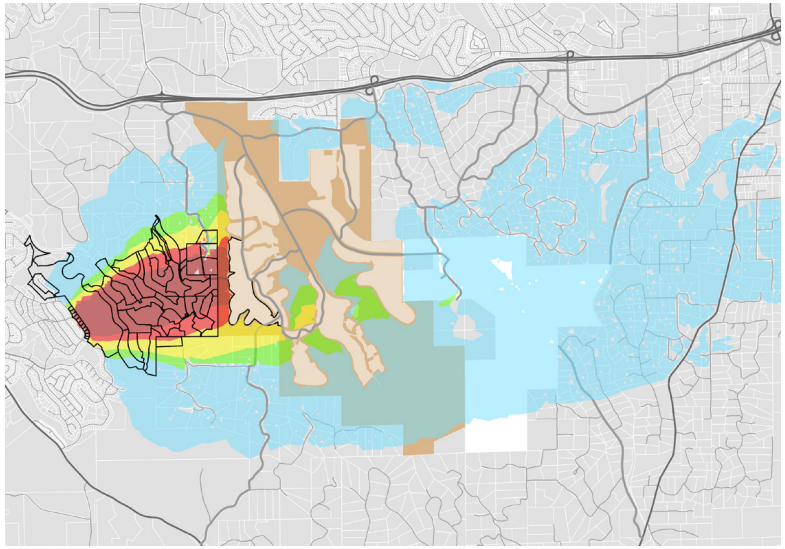
Figure 6

Fire Analysis Scenario 7

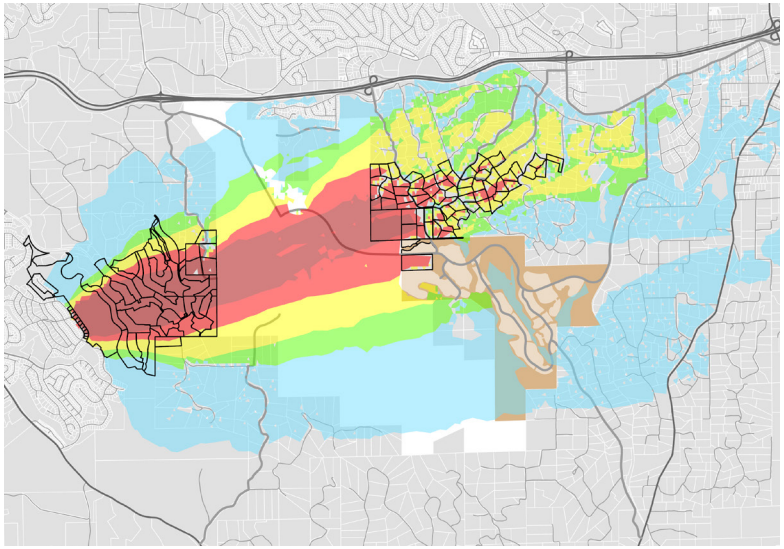
Existing - 16A



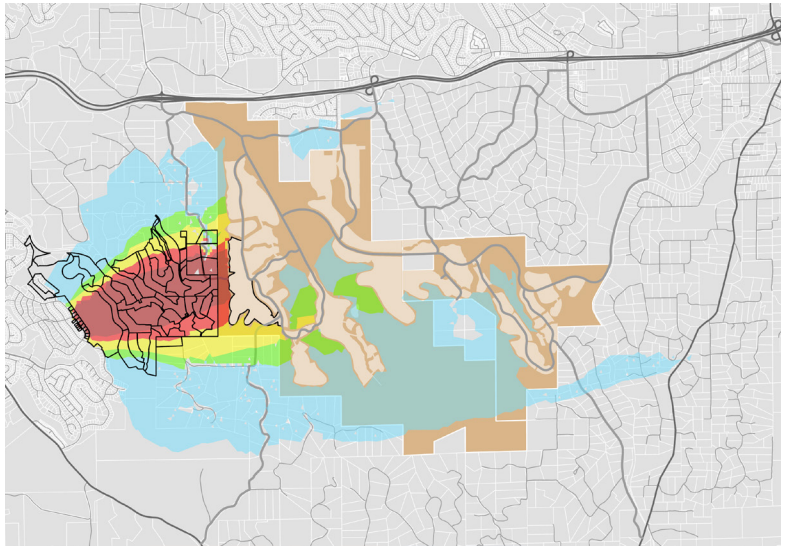
Existing Plus MVSP - 16B



Existing Plus LRSVP - 16C



Existing Plus MVSP & LRSVP - 16D



Fire Progression (minutes):

30 60 120

180 240

Project Area

Project Residential Area

Vulnerable Parcels

Evacuation Routes

Figure 7

Fire Analysis Scenario 16

Table 1: Evacuation Analysis Scenarios

Fire Location	Wind Direction and Speed	Analysis Scenario	Fire Scenario ID	Evacuation Routes and Route Availability (minutes)							
				NW	N	NE	EVA 1	EVA 2	EVA 3	EVA 4	EVA 5
Ryan Ranch Rd to Beaver Pond Rd	SW 65 mph	Existing Conditions	2-A			150					
		Existing Plus Marble Valley Specific Plan	2-B		145	150			115		
		Existing Plus Lime Rock Valley Specific Plan	2-C			160			110		
		Existing Plus Marble Valley & Lime Rock Valley Specific Plans	2-D					75	110		
End of Summer Creek Ct	SW 65 mph	Existing Conditions	4-A			60					
		Existing Plus Marble Valley Specific Plan	4-B			90		150			
		Existing Plus Lime Rock Valley Specific Plan	4-C			120				90	120
		Existing Plus Marble Valley & Lime Rock Valley Specific Plans	4-D			120				90	120
Bullard Dr west of Amber Fields Dr	SSE 65 mph	Existing Conditions	7-E	100	90						
		Existing Plus Marble Valley Specific Plan	7-F		90						
		Existing Plus Lime Rock Valley Specific Plan	7-G	120	150			120			
		Existing Plus Marble Valley & Lime Rock Valley Specific Plans	7-H		150			120			
East of Aspen Meadows Dr and Cornerstone Dr	W 50 mph	Existing Conditions	16-A		150				100		
		Existing Plus Marble Valley Specific Plan	16-B					120	100		120
		Existing Plus Lime Rock Valley Specific Plan	16-C						100		90
		Existing Plus Marble Valley & Lime Rock Valley Specific Plans	16-D						100		

Source: Firesafe Planning Solutions, 2023
Fehr & Peers, 2023

Notes:

	Available Routes: Evacuation routes available for more than 180 minutes
(minutes)	Partially Available Routes: Evacuation routes available less than 180 minutes but more than 30 minutes
	Not Available Routes: Evacuation routes available for 30 minutes or less

3. Methodology

Forecasting evacuation travel times relies on similar methodology to what is used in conventional travel demand forecasting and traffic operations analysis albeit with modifications to account for the unique circumstances of an evacuation event. The basic steps involve forecasting the demand across specific time periods, determining the distribution of associated trips, assigning the trips to specific routes, and analyzing the capacity of the routes to accommodate those trips. Since evacuation events can generate substantial demand in a brief time, the ability of the roadway network under typical operations can be challenged to accommodate that demand without causing substantial delays such as those reported during the Caldor Fire. Delays experienced would be characterized by forced flow, stop-and-go conditions, and extensive vehicle queuing. With ample notice, an evacuation event could occur with minimal impact to roadway traffic operations and usual travel times. For this study, a short evacuation window is analyzed to isolate the project's effect on evacuation travel times during more severe conditions.

The emergency evacuation time estimates include the following steps:

- Preparing the sub-area network representing the study area and the associated background trips (some background travel demand occurs on portions of the network from people traveling for common activities and not affected by the evacuation).
- Forecasting evacuation vehicle trips during the wildfire event.
- Dynamically assigning trips to the sub-area network.

EVAC+ Model

The Fehr & Peers EVAC+ model has been applied for numerous evacuation time estimates for projects throughout California and was utilized to evaluate the estimated travel time for the four fire scenarios outlined in Chapter 2. EVAC + uses inputs from the El Dorado County Travel Demand Model for a typical weekday and modifies the travel demand and transportation network to represent the evacuation condition. EVAC+ is built in TransCAD 8.0 and is a dynamic traffic assignment model sensitive to how demand flows in short periods of time affects the speed of travel on the roadway network and the resulting ability of individual roadway segments and intersections to accommodate that demand. After determining the evacuation travel demand and associated transportation network, a dynamic traffic assignment with 15-minute intervals is used to capture the demand and capacity relationship that produces resulting travel speeds and evacuation travel times. Note that this model does not include estimating the time people need to prepare for the evacuation.

Trips were assigned using the EVAC+ tool. The EVAC+ tool relies on the Study Area traffic analysis zones and existing roadway network extracted from the El Dorado County model. Areas affected by the

evacuation event are then processed through the EVAC+ tool trip estimator to estimate the number and sequencing of trips that occur due to the event.

The sub-area extracted network and new trip tables are then input into a dynamic traffic assignment model. A dynamic traffic assignment model estimates traffic and levels of congestion on 15-minute intervals and, as link demand builds (i.e., roads fill with cars), it dynamically reassigns traffic to less congested routes. This is a more accurate way of estimating trip assignment and identifying congested locations on the network that should be considered during an evacuation event. The EVAC+ tool processes are outlined in **Figure 8 and Figure 9**.

Figure 8: EVAC+ Model Framework

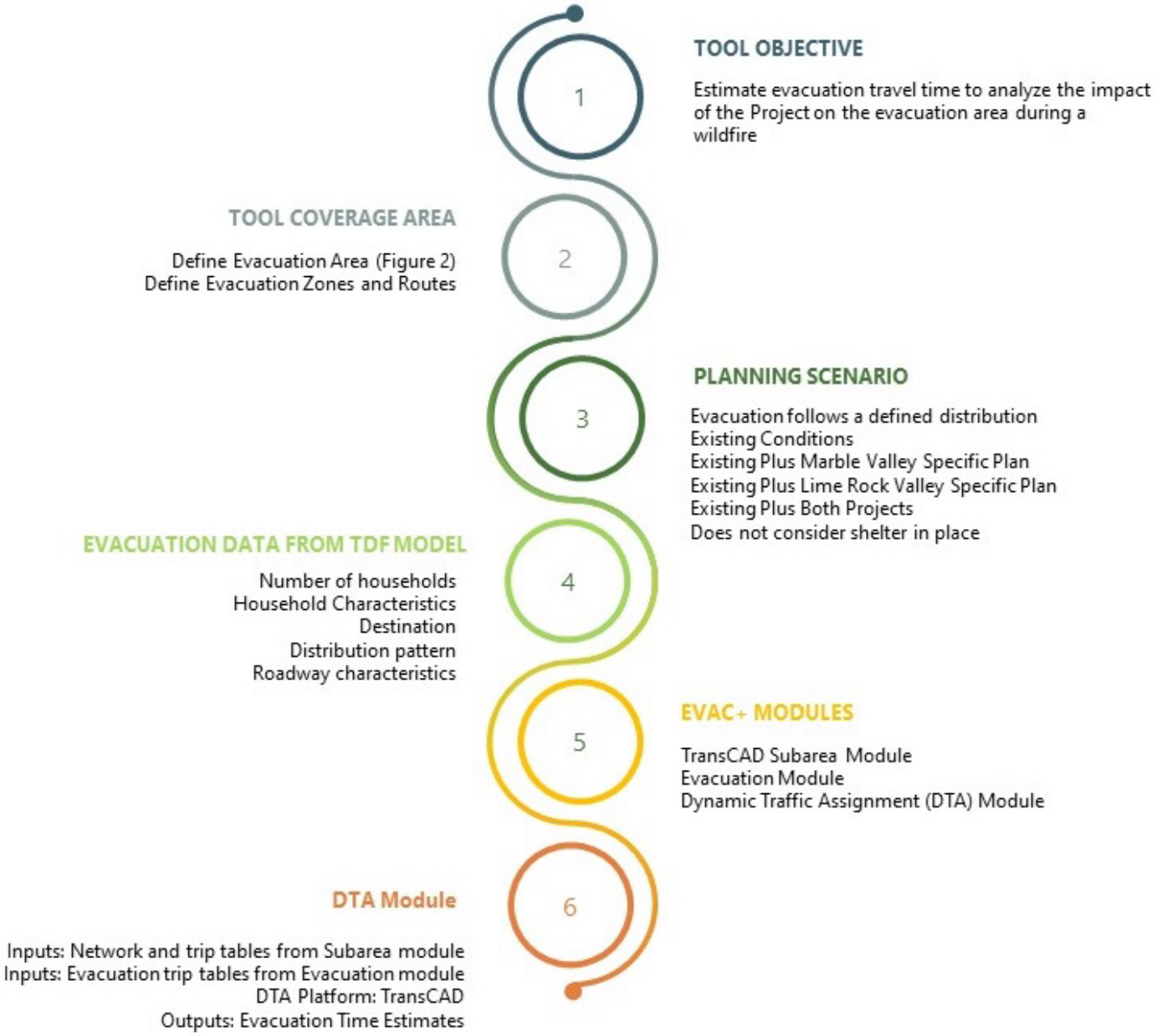
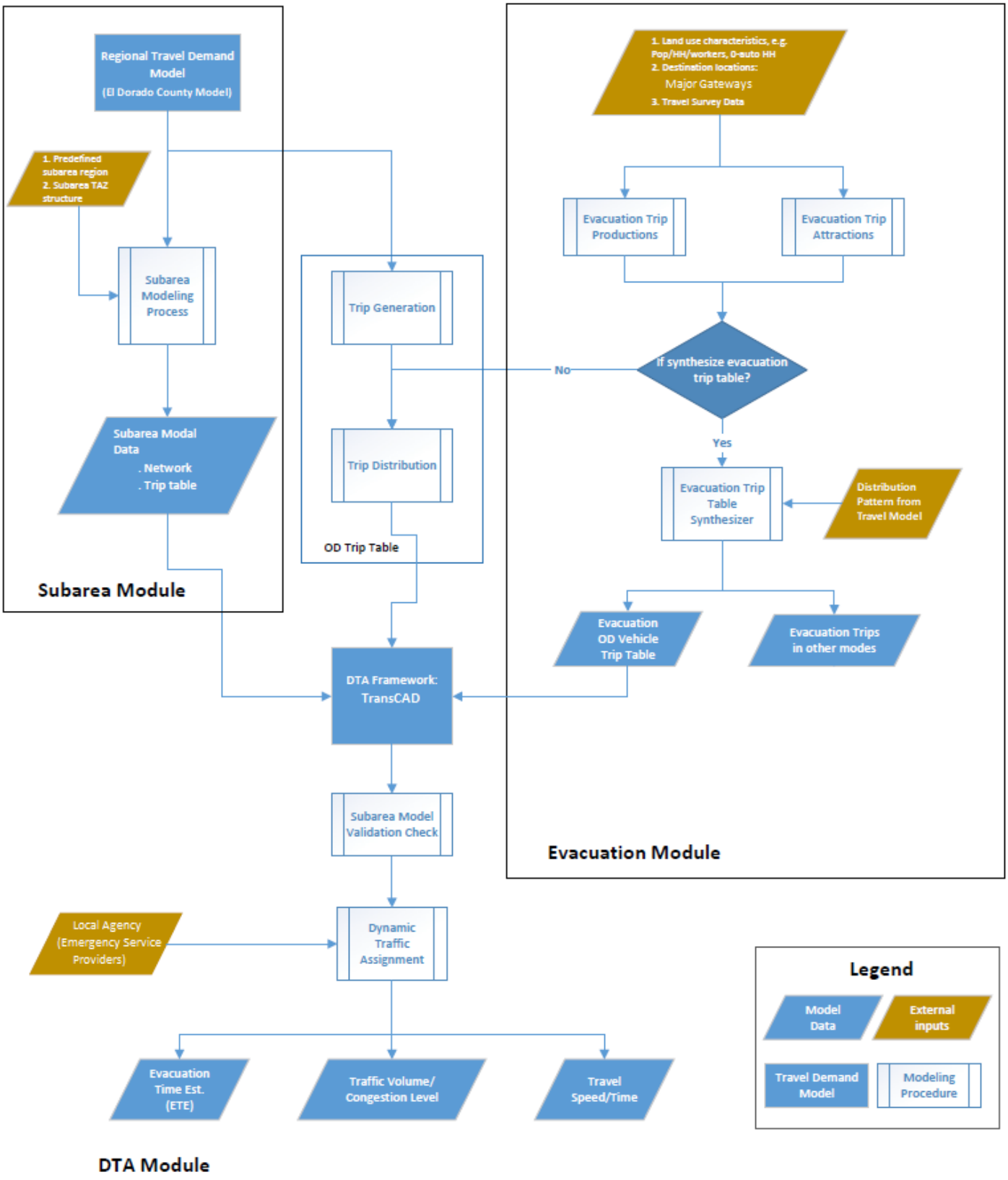


Figure 9: EVAC+ Dynamic Traffic Assignment (DTA) Module



Model Inputs

The travel demand considers the number of people and automobiles used by those evacuating, the background vehicle traffic, and the type of activities being conducted based on the type and timing of the evacuation event. The dynamic traffic assignment model only reflects personal vehicle traffic. Due to the nature of this model, travel made by those in publictransit, other shared modes (i.e., vanpool), or walking/biking are not analyzed. The overall vehicle travel demand was based on the typical travel for each hour of daily activity until the evacuation notice was given. The travel demand for evacuation zones was separated from background traffic not associated with evacuation zones.

The inputs to the EVAC+ model are discussed below and include the transportation network, background and evacuation trip matrix, evacuation window, and distribution.

Model Network

EVAC+ includes a transportation network to represent the evacuation condition. The evacuation sub-area is a subset of the EL Dorado County travel demand model. A "sub-area extraction" is performed to develop the sub-area model network.

Background Traffic

Background traffic is associated with trips traveling to or from evacuation zones and is taken directly from the El Dorado County travel model for a typical day, then distributed over each hour of the day. Trips that do not end in evacuation zones go about their normal activity regardless of if the evacuation order has been given. Trips that end in the evacuation zone after the evacuation order is given do not travel and stay in the original zone.

Background traffic in the EVAC+ is added as a matrix that shows trips between origins and destinations within the sub-area. The matrix is converted from hourly traffic to 15-minute bins to run the dynamic traffic assignment. Background trips change based on the time of day.

Evacuation Traffic

Evacuation traffic consists of traffic generated by residents, students, employees, and visitors of the evacuation zones. The EVAC+ model uses the land use and vehicle trip inputs to create a matrix of trips between origins and gateways (i.e., destinations) within the sub-area. The matrix is created based on the evacuation departure time and total vehicle trips. The analysis assumed that 100% of the population evacuates.

As outlined in the *Wildland Fire Evacuation Risk Report, Fire Behavior – The Village of Marble Valley Project* (**Appendix A**), the fire scenarios modeled are extreme and the results indicate the fire will be traveling at a rate faster than fire suppression activity will allow for control lines. The size, location and configuration of the Project site makes it unlikely that a fire will impact the entire evacuation area simultaneously

(shown in **Figure 2**), but rather the fire will impact different portions over time. Consequently, evacuation time estimates are developed for the following evacuation conditions:

- Self-Evacuation – Represents the evacuation of populations in the direct path of the fire where advanced notice is not available due to the fire's progression. These vulnerable populations are in the red areas (i.e., where the fire's progression is 60 minutes or less) shown in the fire scenario figures (**Figures 4 through 7**). As analyzed, evacuation is assumed to begin within 15 minutes of the fire's recognition. However, self-evacuation may be a part of an Ordered Evacuation, representing an initial phase of the evacuation that occurs before the Sheriff issues an order to evacuate. Evacuation time is estimated from the evacuation trip origin to the closest safe location not in the direct path of the fire, which may be inside or outside the study area shown on **Figure 2**.

- Ordered Evacuation – Represents the evacuation of the entire population (residents, students, employees, and visitors) in the evacuation area for an event with ample notice where emergency services are participating in the evacuation. As analyzed, the evacuation window is 3 hours (180 minutes) beginning from the Sheriff ordering the evacuation. Evacuation time is estimated from the evacuation trip origin to the study area gateways identified on **Figure 2**.

Traffic analysis zone geographies were used to represent neighborhoods and estimate the number of trips for households, employees, students, and visitors. Vehicle trips for evacuation were informed by the existing land use and socio-economic data in each traffic analysis zone. The socio-economic data includes a variety of information based on 2020 5 Year ACS Data Table - B08201, including persons per household, number of employees, auto-ownership information, population, and other factors that could affect the number of vehicles per household used during an evacuation event.

Table 2 summarizes the socio-economic data inputs used to develop the evacuation trips for self-evacuation of vulnerable populations by analysis scenario.

As shown on shown on the fire scenario figures (**Figures 4 through 7)** and summarized in **Table 2**, the addition of the Marble Valley Specific Plan and/or the Lime Rock Valley Specific Plans affect the progression of the fire event. Consequently, the vulnerable population in the existing areas will decrease or remain unchanged.

The change in vulnerable population results from the fuel modification/defensible spaces created by the development, which will be constructed in accordance with the following code, standards, and requirements that are applicable to new development in the Very High Fire Hazard Severity Zones:

- Public Resources Code
- Fire Code
- California Building Code
- California Residential Code

- Fire Department Requirements

Please refer to **Appendix A,** which includes the *Wildland Fire Evacuation Risk Report, Fire Behavior – The Village of Marble Valley Project,* for a comprehensive discussion of fire behavior and the effect of development on fire progression.

Table 2: Self-Evacuation (Vulnerable Population) Scenario: Land Use and Trip Summary

Fire Scenario	Study Areas & Analysis Scenarios		Vulnerable Population							
			Population		Households		Employees		Evacuation Vehicle Trips	
			Existing	Project	Existing	Project	Existing	Project	Existing	Project
2	Study Area	Existing Area	108	N/A	45	N/A	20	N/A	85	N/A
		MVSP	32	264	14	100	5	0	31	189
		LRVSP	108	0	45	0	20	0	73	0
		MVSP & LRVSP	0	264	0	100	0	0	0	189
	Analysis Scenario	Existing Conditions	108		45		20		85	
		Existing Plus MVSP	296		114		5		220	
		Existing Plus LRVSP	108		45		20		73	
		Existing Plus MVSP & LRVSP	264		100		0		189	
4	Study Area	Existing Area	193	N/A	80	N/A	241	N/A	212	N/A
		MVSP	159	0	67	0	12	0	95	0
		LRVSP	0	404	0	160	0	0	0	303
		MVSP & LRVSP	0	404	0	160	0	0	0	303
	Analysis Scenario	Existing Conditions	193		80		241		212	
		Existing Plus MVSP	159		67		12		95	
		Existing Plus LRVSP	404		160		0		303	
		Existing Plus MVSP & LRVSP	404		160		0		303	

Table 2: Self-Evacuation (Vulnerable Population) Scenario: Land Use and Trip Summary (Continued)

Fire Scenario	Study Areas & Analysis Scenarios		Vulnerable Population							
			Population		Households		Employees		Evacuation Vehicle Trips	
			Existing	Project	Existing	Project	Existing	Project	Existing	Project
7	Study Area	Existing Area	557	N/A	235	N/A	15	N/A	445	N/A
		MVSP	301	132	125	50	12	0	237	95
		LRVSP	284	323	119	128	1	0	248	243
		MVSP & LRVSP	207	323	86	128	0	0	163	243
	Analysis Scenario	Existing Conditions	557		235		15		445	
		Existing Plus MVSP	433		175		12		332	
		Existing Plus LRVSP	607		247		1		491	
		Existing Plus MVSP & LRVSP	530		214		0		406	
16	Study Area	Existing Area	112	N/A	46	N/A	6	N/A	97	N/A
		MVSP	75	124	29	49	0	0	55	93
		LRVSP	105	0	42	0	6	0	84	0
		MVSP & LRVSP	75	124	29	49	0	0	55	93
	Analysis Scenario	Existing Conditions	112		46		6		97	
		Existing Plus MVSP	199		78		0		148	
		Existing Plus LRVSP	105		42		6		84	
		Existing Plus MVSP & LRVSP	199		78		0		148	

Source: Fehr & Peers, 2023
MVSP – Marble Valley Specific Plan
LRVSP – Lime Rock Valley Specific Plan
Note: Evacuation vehicle trips include evacuation of the entire population (residents, students, employees, and visitors).

Table 3 summarizes the socio-economic data inputs used to develop the evacuation trips for an Ordered Evacuation by analysis scenario.

Table 3: Ordered Evacuation Scenario: Land Use and Trip Summary

Analysis Scenarios	Population	Households	Employment	Evacuation Vehicle Trips
Existing Conditions	2,804	1,132	2,413	1,596
Marble Valley Specific Plan	*8,057*	*3,236*	*1,595*	*6,649*
Lime Rock Valley Specific Plan	*2,022*	*800*	*0*	*1,804*
Existing Plus Marble Valley Specific Plan	10,861	4,368	4,008	8,245
Existing Plus Lime Rock Valley Specific Plan	4,826	1,932	2,413	3,400
Existing Plus Marble Valley & Lime Rock Valley Specific Plans	12,883	5,168	4,008	10,049

Source: Fehr & Peers, 2023
MVSP – Marble Valley Specific Plan
LRVSP – Lime Rock Valley Specific Plan
Note: Evacuation vehicle trips include evacuation of the entire population (residents, students, employees, and visitors).

Evacuation Distribution

The evacuation time window is the time between when the evacuation order is received, and the time evacuees must begin their evacuation. As discussed in **Chapter 2**, a 3-hour (180 minutes) evacuation window is used for the analysis of the Ordered Evacuation.

Evacuation events are not linear, and it is anticipated that evacuation rate will closely resemble a bell curve from the time that the evacuation order is issued. This is consistent with other research on short-notice evacuation events as documented in the study by Noh et. al[2] and Florida Hurricane Evacuation[3]. For this study, curves developed from stated preference surveys of Ashland residents by KLD Engineering were used as a guide. A weighted average distribution was created for all evacuees. **Figure 10** shows the curves from the Ashland survey (i.e., in red, green, and blue) and the curve used for this study (i.e., in yellow). **Table 4** shows the time distribution for each 15-minute time bin. Note that although this is the assumed distribution for the EVAC+ model, emergency scenarios are often unpredictable, and driver behavior can be disorderly.

Depending on the fire event, traffic may be evacuating directly or may be returning home before evacuating, allowing for families to regroup prior to evacuating (i.e., residents with commuters). The

[2] Noh, Chiu, Zheng, Hickman, and Mirchandani, *Approach to Modeling Demand and Supply for a Short-Notice Evacuation,* Transportation Research Record 2091
[3] Roberto Miguel, *Florida Statewide Hurricane Evacuation Model/TIME*, December 9, 2015

number of vehicle trips depends on the type and time of the event, the number of drivers in the household, and the number of vehicles available.

Figure 10: Evacuation Trip Distribution

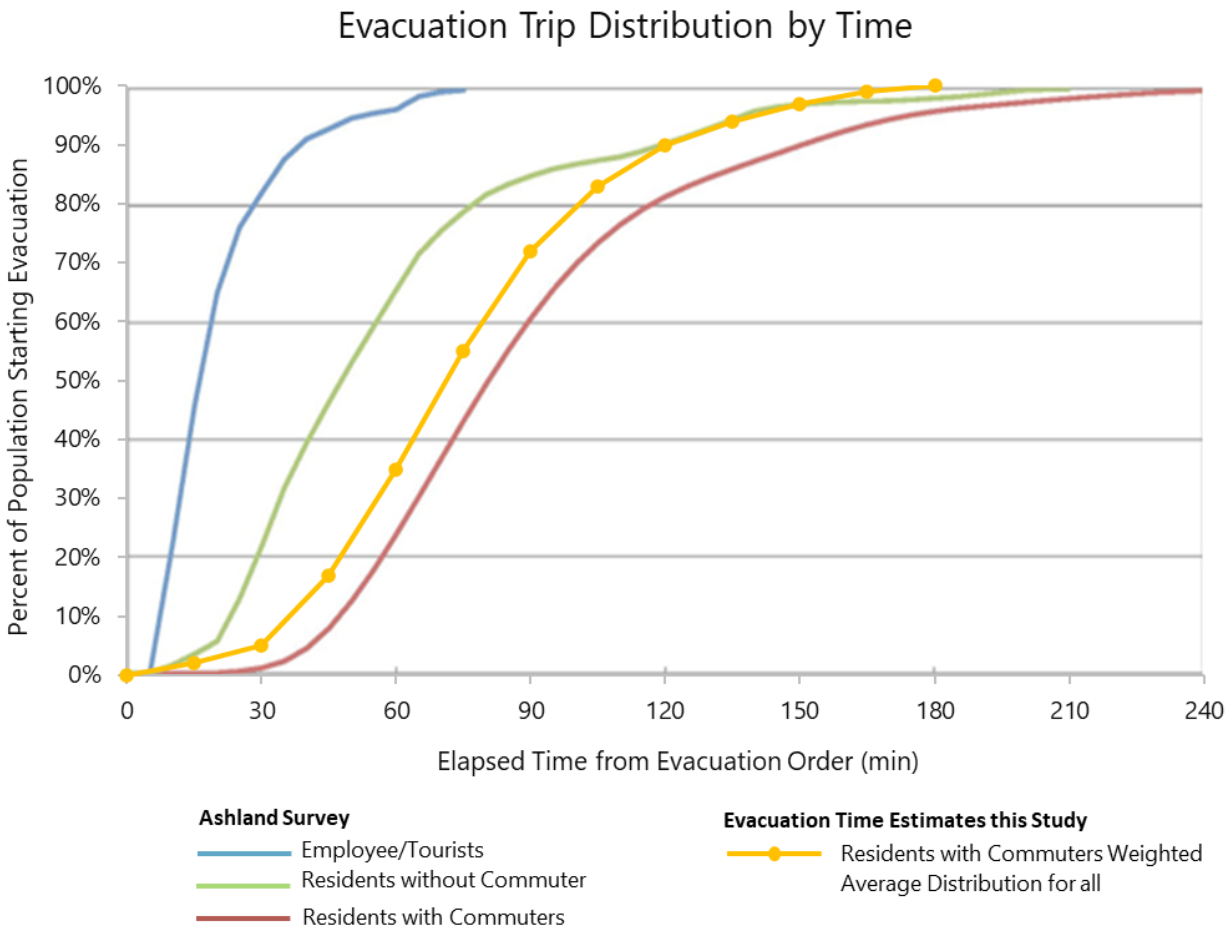


Table 4: Evacuation Distribution Assumptions

Time Analysis Interval (minutes)	Percent Evacuating
0-15	2%
15-30	3%
30-45	12%
45-60	18%
60-75	20%
75-90	17%
90-105	11%
105-120	7%
120-135	4%
135-150	3%
150-165	2%
165-180	1%

Source: Fehr & Peers, 2023

Evacuation Start Time

The start time leaving the evacuation zones varies by type of the event. With different evacuation starting times, the impact of the evacuation trips on the roadway conditions will be different. For example, evacuations occurring at nighttime when all household members are at home will be different from evacuations occurring when all or part of household members have made their regular trips from or to the evacuation areas.

For events where ample notice is given or the family unit is already together, less time is needed to prepare for the evacuation. On the other hand, where little notice of an event or when the family unit is not together, the time required to prepare for an evacuation is typically longer as residents may need to prepare belongings, collect their animals, and conduct other coordination before beginning their evacuation trip.

Evacuation start time for each fire scenario was identified based on the historic wind events used to develop the fire analysis scenarios shown on **Figures 4 through 7**. The fire scenarios were developed based on site-specific wind speeds and directions. Each of the fire scenarios corresponds to historic wind data from weather sites near the study area.

The extreme fire events used in the modeling correspond to "extreme fire weather" or "red flag warning" conditions. Under these conditions, some fraction of the population may complete some preparations for evacuation and be able to evacuate sooner and more efficiently than at other times. However, because it would be speculative to try and estimate the percentage of the population that may make advanced preparations, what those preparations might be, and how they would help expedite the overall evacuation process, this issue is not incorporated into the modelling.

For the evacuation time estimates, the historic wind data was reviewed to identify the time of day the winds for the specific fire scenario occurred. *Wildland Fire Evacuation Risk Report, Fire Behavior – The Village of Marble Valley Project*, includes the detailed analysis of the fire analysis scenarios. **Table 5** shows the evacuation start times for each scenario.

Table 5: Evacuation Start Time Assumptions

Fire Scenario	Wind Direction	Evacuation Start Time
2	SW	11:00 AM
4	SW	11:00 AM
7	SSE	7:00 AM
16	W	1:00 PM

Source: Fehr & Peers, 2023

Evacuation Destination

The destination of evacuating trips depends on whether the evacuation is a Self-Evacuation of vulnerable populations or an Ordered Evacuation. For a Self-Evacuation, the destination is to the closest safe location, which may be inside or outside the study area. For an Ordered Evacuation, the destination is outside the study area using a study area gateway shown on **Figure 2**.

Selectzone model runs were performed to estimate gateway travel for each analysis scenarios. **Table 6** shows the gateway weights or trip attractions for each scenario. The weights are for "Typical Weekday" conditions and vary by analysis scenario. The gateway weights are a starting point for assigning evacuation trips to the study area gateways and adjust through the iterative dynamic traffic assignment process, based on the route availability for each fire scenario as summarized in **Table 1**. The percentages in **Table 6** represent the share of evacuation trips assigned to each study area gateway at the beginning of the evacuation, prior to effect of congestion and rerouting of traffic to less congested routes that occurs with dynamic traffic assignment.

Table 6: Evacuation Gateway Weights

Gateways	Existing	Existing Plus MVSP	Existing Plus LRVSP	Existing Plus MVSP and LRVSP
East of Durock Rd and North of S Shingle Rd	18%	10%	20%	11%
North of Cameron Park Drive/US 50	53%	28%	48%	28%
North of Cambridge Rd/ US 50	12%	20%	12%	22%
North of Marble Valley Rd/US 50	2%	32%	14%	32%
North of Latrobe Rd	6%	4%	2%	3%
South of Latrobe Rd and S Shingle Rd	9%	6%	5%	4%

Source: Fehr & Peers, 2023
Notes: Gateway weights are calculated from selectzone model runs.
MVSP – Marble Valley Specific Plan
LRVSP – Lime Rock Valley Specific Plan

Transportation Network Assignment

Depending on the event, the dynamic traffic assignment can model the change in accessibility and use of a roadway over the duration of the event. Some operating conditions that the model can evaluate are described below.

Normal Roadway Conditions

The evacuation time estimate analysis assumes typical daily operating conditions for both the number of travel lanes per direction and associated hourly capacity per lane. This condition allows for the opposite direction of evacuation traffic to be used for emergency responders to access the evacuation area and for background traffic to operate normally.

Contra-Flow Operations

Contra flow operations refer to evacuation travel where traffic is flowing in only one direction (e.g., using both travel lanes of a two-lane roadway for evacuation in the same direction). This condition does not allow for the opposite direction of evacuation traffic to be used for emergency responders to access the evacuation area and prohibits background traffic travel in the opposite direction from the evacuation traffic. The evacuation time estimate analysis does not rely on contra-flow operations.

Capacity Restrictions

The routes that are operational longer than 180 minutes during a fire scenario are assumed to be "Available" for evacuation. The available routes are assumed to be operational at normal capacity.

The roadways that will be operational during a fire scenario for less than 30 minutes are assumed to be "Not Available" for evacuation. These routes are turned off in the dynamic traffic assignment model.

If an evacuation route is available for a specific amount of time that is less than the evacuation window (i.e., 180 minutes), that route is assumed to be "Partially Available" for evacuation. The Partially Available routes are assumed to be turned off after they are not available for evacuation, as specified by the fire behavior analysis. This is indicated in the model by an "incident." The incident's start time varies by scenario and is set according to the availability of the routes in **Table 1**. This means that those routes will operate at normal capacity until the fire affects their availability for evacuation. At that point (at incident start time), the route will be closed to evacuation and vehicles rerouted to other evacuation routes/gateways. This will cause additional congestion in the dynamic traffic assignment model.

Model Output

The output for the EVAC+ model includes the following:

- Congested Skim Matrix – Includes matrices of travel time between each zone and gateway for each 15-minute bin (i.e., four per hour) for each hour of the day for a total of 96 matrices.
- Evacuation Vehicle Trip Matrix – Includes matrices of evacuation trips between each zone and gateway for each 15-minute bin that includes evacuation trips. A total of 96 bins are created, but only the time bins within the specified evacuation window are populated.
- Link Flow Network – Includes vehicle volume for each 15-minute bin on the roadway network.

Results from the model are summarized for different population groups to create evacuation time estimate results.

4. Evacuation Time Estimate Results

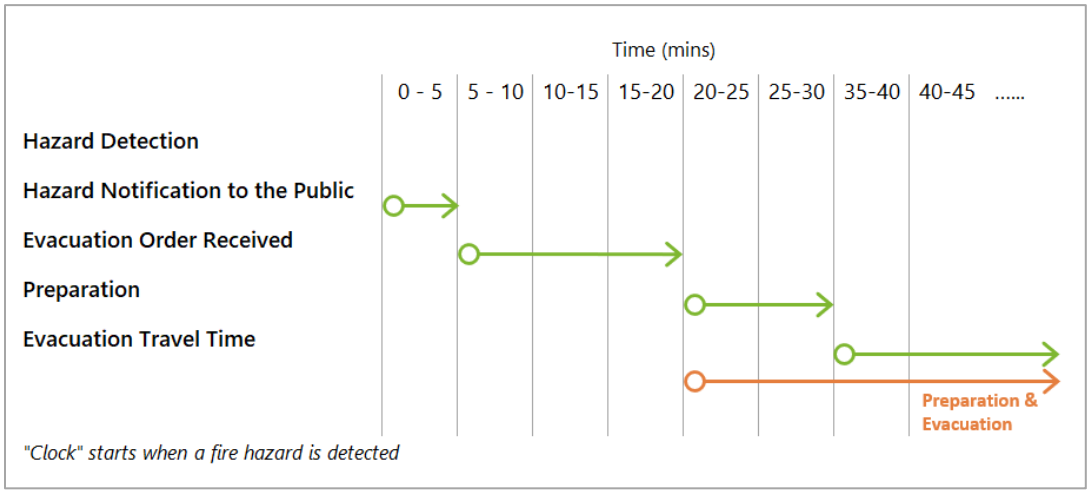
An evacuation time estimate is a metric that is defined as the estimated time necessary to safely evacuate all evacuees, from the time when a hazard is first identified until the time when either the last evacuee leaves a hazardous area, or the remaining population is forced to shelter-in-place. The determination of whether it is the last evacuee or forced shelter-in-place is made by emergency response personnel, is hazard-specific, and considers factors such as the type of hazard or threat, level of notice, population characteristics of the area at the time of the hazardous event, and evacuee behavior. There are several phases of an evacuation time estimate described below:

- Hazard Detection – Time when hazard is first identified.
- Hazard Notification to the Public – Time when any official releases an evacuation order to the public.
- Evacuation Order Received – Time when people receive the evacuation order.
- Preparation – Time it takes to prepare to depart after receiving evacuation order.
- Self-Evacuation Time (Vulnerable Population) – The total elapsed time until all vehicles are out of harm's way, including time driving (moving) and delay due to congestion. The calculated evacuation time is estimated from the evacuation trip origin to the closest safe location not in the direct path of the fire, which may be inside or outside the study area shown on **Figure 2**.
- Ordered Evacuation Time – The total elapsed time until all vehicles are out of the Evacuation Area including time driving (moving) and delay due to congestion. The calculated evacuation time is estimated from the evacuation trip origin to the study area gateways identified on **Figure 2**.

  Note: The calculated evacuation time does not account for unexpected complications or incidents on the roadways during the evacuation.

It should be noted that some phases may not occur. This can result from a variety of events including failure of officials to identify the hazard, slow response in sending evacuation orders, damaged or non-functional communication networks, and/or a sufficiently high perceived threat of the hazard by residents that results in substantial self-evacuation. Additionally, research on California wildfire evacuations found that some people evacuated their home prior to receiving an evacuation order (Wong et al. 2020). This assessment assumes that El Dorado County officials and emergency response personnel will be able to send out informed evacuation orders in a timely manner. **Figure 11** shows typical evacuation phases.

Figure 11: Evacuation Phases



For the Self-Evacuation (Vulnerable Population), the analysis estimates the evacuation time beginning from the hazard being detected by the evacuees.

For the Ordered Evacuation, the analysis estimates the evacuation time beginning from the evacuation order being received by the evacuees. The evacuation time estimates do not account for the time it takes for a hazard to be identified or the amount of time it takes for the official release of an evacuation order to the public.

Modeling Results

The EVAC+ evacuation time estimates for the Self-Evacuation and Ordered Evacuation analysis are summarized below for the fire scenarios outlined in **Table 1** for the following analysis scenarios:

- Existing Conditions – Represents existing conditions (i.e., existing residents).
- Existing Conditions Plus Marble Valley Specific Plan – Represents existing conditions with buildout of the Marble Valley Specific Plan.
- Existing Conditions Plus Marble Valley & Lime Rock Valley Specific Plans – Represents existing conditions with buildout of both the Marble Valley and Lime Rock Valley Specific Plans.

Self-Evacuation (Vulnerable Population)

Self-Evacuation represents the evacuation of populations in the direct path of the fire where advanced notice is not available due to the fire's progression. These vulnerable populations are in the red areas (i.e., where the fire's progression is 60 minutes or less) shown in figures (**Figures 12 through 15**). As analyzed, evacuation is assumed to begin within 15 minutes of the fire's recognition. However, self-evacuation may

be a part of an Ordered Evacuation, representing an initial phase of the evacuation that occurs before the Sheriff issues an order to evacuate. Evacuation time is estimated from the evacuation trip origin to the closest safe location not in the direct path of the fire, which may be inside or outside the study area shown on **Figure 2**.

The analysis results for Self-Evacuation summarized in **Table 7** is supported by summary figures for each fire scenario. **Figures 12 through 15** present the following information for Fire Scenario 2, 4, 7, and 16, respectively, for each analysis scenario:

- Fire Progression – Shows the progression of the fire scenario in minutes for each analysis scenario.
- Vulnerable Areas – Identifies the areas/parcels in the red areas that have a fire progression of 60 minutes or less.
- Vulnerable Evacuees – Identifies the number of evacuees in vulnerable areas.
- Evacuation Vehicle Trips – Identifies the number of vulnerable evacuation trips for each analysis scenario.
- Maximum Total Time to Safety – Summarizes the total time required to move the vulnerable evacuees to the closest safe location not in the direct path of the fire, which may be inside or outside the study area shown on **Figure 2**.

As shown, the addition of the Project slows the progression of the fire event. Consequently, the vulnerable population in the existing community areas will decrease compared to existing conditions due to the fuels removed by the Project, fuels management activities, and the creation of fire breaks conducted around the Project perimeter. Under Fire Scenarios 2 and 4, all the existing community areas would be outside the vulnerable areas with the addition of both the Project and Lime Rock Valley Specific Plans.

For all fire scenarios, it would take less than 20 minutes to move all the vulnerable evacuees (i.e., existing or project evacuees) to a safe location, which is less than the 30 minute fire progression shown in **Figures 12 through 19**. The maximum total time to safety would decrease for existing vulnerable evacuees with the Project. This is due to the increased access to evacuation routes and the slowed progression of the fire created by the removal of fuels and vegetation and fuels management activities occurring with the Project, which creates additional safe areas for vulnerable evacuees to access.

Table 7: Self Evacuation (Vulnerable Population) Time Estimates - Village of Marble Valley Specific Plan

Fire Location	Wind Direction and Speed	Analysis Scenario	Fire Scenario ID	Evacuation Vehicle Trips[1]		Evacuation Start Time	Maximum Total Time to Safety (Minutes)	
				Existing	Project		Existing	Project
Ryan Ranch Rd to Beaver Pond Rd	SW 65 mph	Existing Conditions	2-A	85	-	11:00 AM	18.1	-
		Existing Conditions Plus Marble Valley Specific Plan	2-B	31	189		17.6	19.1
		Existing Conditions Plus Marble Valley & Lime Rock Valley Specific Plans	2-D	-	189		-	19.1
End of Summer Creek Ct	SW 65 mph	Existing Conditions	4-A	212	-	11:00 AM	19.8	-
		Existing Conditions Plus Marble Valley Specific Plan	4-B	95	-		18.2	-
		Existing Conditions Plus Marble Valley & Lime Rock Valley Specific Plans	4-D	-	303		-	18.2
Bullard Dr west of Amber Fields Dr	SSE 65 mph	Existing Conditions	7-E	445	-	7:00 AM	20.4	-
		Existing Conditions Plus Marble Valley Specific Plan	7-F	237	95		19.9	19.1
		Existing Conditions Plus Marble Valley & Lime Rock Valley Specific Plans	7-H	163	243		19.9	18.2
East of Aspen Meadows Dr and Cornerstone Dr	W 50 mph	Existing Conditions	16-A	97	-	1:00 PM	17.7	-
		Existing Conditions Plus Marble Valley Specific Plan	16-B	55	93		17.5	18.1
		Existing Conditions Plus Marble Valley & Lime Rock Valley Specific Plans	16-D	55	93		17.5	18.1

Source: Feher & Peers, 2023
(1) Evacuation vehicle trips include evacuation of the entire population (residents, students, employees, and visitors).

Table 8: Ordered Evacuation Time Estimates – Village of Marble Valley Specific Plan

Fire Location	Wind Direction and Speed	Analysis Scenario	Fire Scenario ID	Evacuation Vehicle Trips[1]		Evacuation Window	Maximum Total Time to Evacuate (Minutes)	
				Existing	Project		Existing	Project
Ryan Ranch Rd to Beaver Pond Rd	SW 65 mph	Existing Conditions	2-A	1,596	-	11:00 AM To 2:00 PM	188	-
		Existing Conditions Plus Marble Valley Specific Plan	2-B	1,596	8,245		186	189
		Existing Conditions Plus Marble Valley & Lime Rock Valley Specific Plans	2-D	1,596	10,049		186	196
End of Summer Creek Ct	SW 65 mph	Existing Conditions	4-A	1,596	-	11:00 AM To 2:00 PM	187	-
		Existing Conditions Plus Marble Valley Specific Plan	4-B	1,596	8,245		192	203
		Existing Conditions Plus Marble Valley & Lime Rock Valley Specific Plans	4-D	1,596	10,049		187	198
Bullard Dr west of Amber Fields Dr	SSE 65 mph	Existing Conditions	7-E	1,596	-	7:00 AM To 10:00 AM	188	-
		Existing Conditions Plus Marble Valley Specific Plan	7-F	1,596	8,245		185	187
		Existing Conditions Plus Marble Valley & Lime Rock Valley Specific Plans	7-H	1,596	10,049		186	188
East of Aspen Meadows Dr and Cornerstone Dr	W 50 mph	Existing Conditions	16-A	1,596	-	1:00 PM To 4:00 PM	187	-
		Existing Conditions Plus Marble Valley Specific Plan	16-B	1,596	8,245		186	186
		Existing Conditions Plus Marble Valley & Lime Rock Valley Specific Plans	16-D	1,596	10,049		186	188

Source: Feher & Peers, 2023
(1) Evacuation vehicle trips include evacuation of the entire population (residents, students, employees, and visitors).

Ordered Evacuation

Ordered Evacuation represents the evacuation of the entire population (residents, students, employees, and visitors) in the evacuation area for an event with ample notice where emergency services are participating in the evacuation. As analyzed, the evacuation window is 3 hours (180 minutes) beginning from the Sheriff ordering the evacuation. Evacuation time is estimated from the evacuation trip origin to the study area gateways identified on **Figure 2**.

The analysis results for the Ordered Evacuation summarized in **Table 8** is supported by summary figures for each fire scenario. **Figures 16 through 19** present the following information for Fire Scenario 2, 4, 7, and 16, respectively, for both no project and with project scenarios:

- Fire Location and Wind Direction – Identifies the location and wind direction for the fire scenario.
- Evacuation Area – Identifies the evacuation area for the existing and project population.
- Evacuation Routes – Identifies the evacuation routes for each fire scenario, including available routes (i.e., 180 minutes or more), routes that are not available (i.e., less than 30 minutes), and routes that are partially available (i.e., more than 30 minutes but less than 180 minutes).
- Evacuation Vehicle Trips – Identifies the number of evacuation trips for existing and project populations.
- Evacuation Time Estimate – Summarizes the total time to evacuate the different populations for existing conditions and existing plus project conditions.

For all fire scenarios, it would take less than 200 minutes to evacuate the study area. For most fire scenarios, the addition of project evacuees would not increase the total time to evacuate existing residents. In most instances this is due to the increase in available evacuation routes (i.e., more routes) and an increase in the availability of evacuation routes (i.e., routes remain viable for evacuation longer), and the slower progression of the fire due to hardened site conditions and removal of wildland fuels (i.e., from development), and vegetation and fuels management implemented as part of the project.

Under Scenario 4, the addition of the Project would result in an increase of about 5 minutes in the total evacuation time for existing residents. Under this scenario, the fire location is on the south end of the Project, so the effect of the Project on the progression of the fire is limited because the Project does not remove fuels in the path of the fire. Consequently, the availability of EVA 2 is reduced to 150 minutes and the Northeast Access (i.e., Durock Road and the US 50/Cameron Park Drive interchange) is reduced to 90 minutes. This reduction in evacuation route availability results in longer travel time for some existing evacuees that must use more distant or more congested access routes. However, as outlined above in the Self-Evacuation analysis, the addition of the Project would decrease the time for existing vulnerable evacuees to move to safety. Consequently, the significance of the 5 minute increase in the total evacuation time, under Scenario 4, of all existing residents is reduced, since the addition of the Project

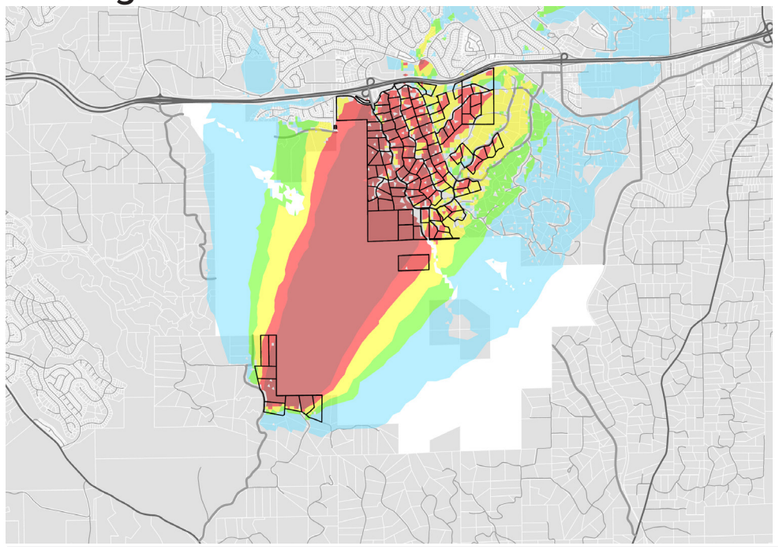
reduces the time it would take existing vulnerable evacuees to reach a safe location. Therefore, the increase in total evacuation time will not affect the ability to get to a safe location before direct exposure to the fire.

With the addition of the Project and the Lime Rock Valley Specific Plan, the total time to evacuate the existing evacuees would be like no project conditions. Again, this is due to the increased access to evacuation routes and the and the slower progression of the fire due to hardened site conditions and removal of wildland fuels (i.e., from development), and vegetation and fuels management implemented as part of the project.

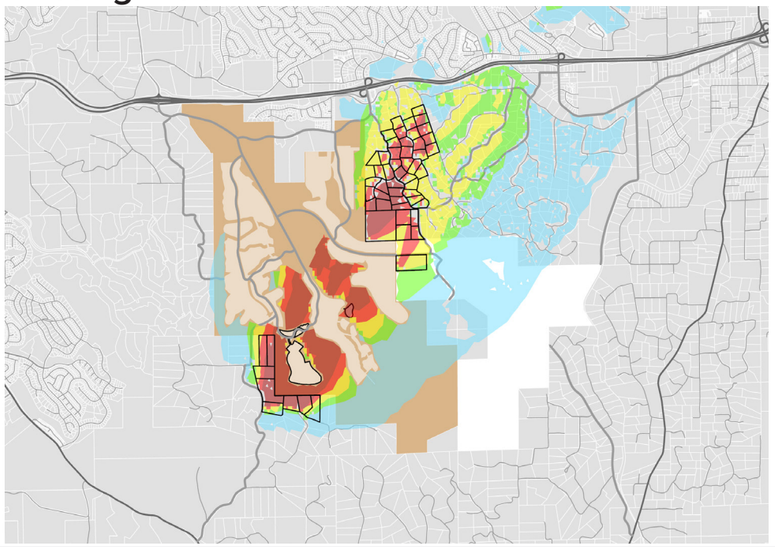
The EVAC+[4] results do not include potential unknown factors that could produce much longer travel times such as road closures due to stalled or inoperable vehicles or other blockages such as falling trees.

[4] EVAC+ is a dynamic traffic assignment model, is built in TransCAD 8.0, sensitive to how demand flows in short periods of time affects the speed of travel on the roadway network and the resulting ability of individual roadway segments to accommodate that demand.

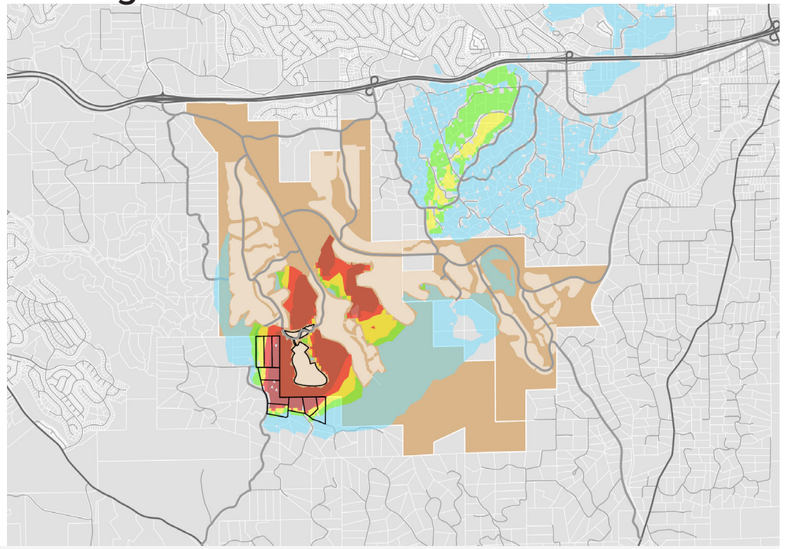
Existing



Existing Plus MVSP



Existing Plus MVSP & LRVSP



Fire Progression (minutes): 30 | 60 | 120 | 180 | 240 | Project Area | Project Residential Area | Vulnerable Parcels | Evacuation Routes

Vulnerable Evacuees

108 Existing Population | **45** Existing Households | **20** Existing Employees

264 Project Population | **100** Project Households | **0** Project Employees

Evacuation Vehicle Trips

85 Existing Evacuees

Total Time to Safety (minutes)

18.1

Vulnerable Evacuees

32 Existing Population | **14** Existing Households | **5** Existing Employees

264 Project Population | **100** Project Households | **0** Project Employees

Evacuation Vehicle Trips

31 Existing Evacuees | **189** Project Only Evacuees

Total Time to Safety (minutes)

17.6

19.1

Vulnerable Evacuees

0 Existing Population | **0** Existing Households | **0** Existing Employees

264 Project Population | **100** Project Households | **0** Project Employees

Evacuation Vehicle Trips

0 Existing Evacuees | **189** Project Only Evacuees

Total Time to Safety (minutes)

N/A

19.1

Vulnerable evacuees are the population directly in the path of the fire (Red Area <= 60 minute fire progression). They are assumed to start self evacuation immediately, i.e., within 15 minutes of fire.

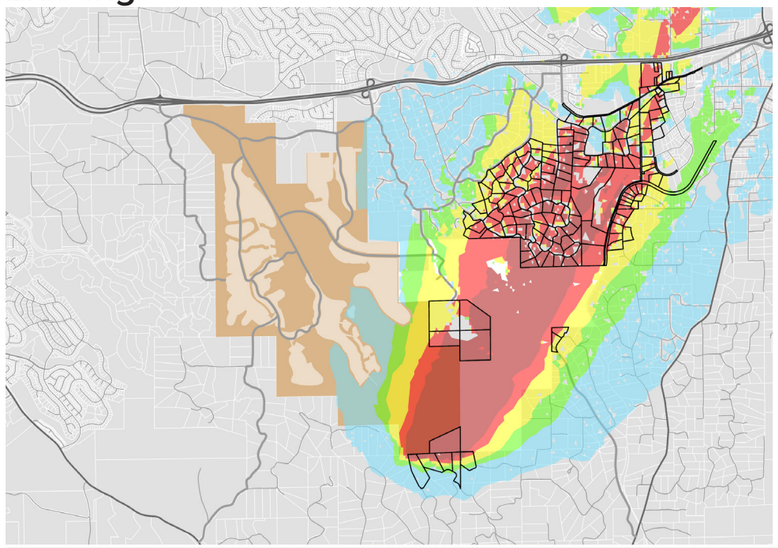
Travel time to safety is defined as the time required for the vulnerable evacuees to exit the red area.

Figure 12

Travel Time to Safety for Vulnerable Evacuees Fire Scenario 2

Evacuation Begins at 11am

Existing



Vulnerable Evacuees

193 Existing Population
80 Existing Households
241 Existing Employees

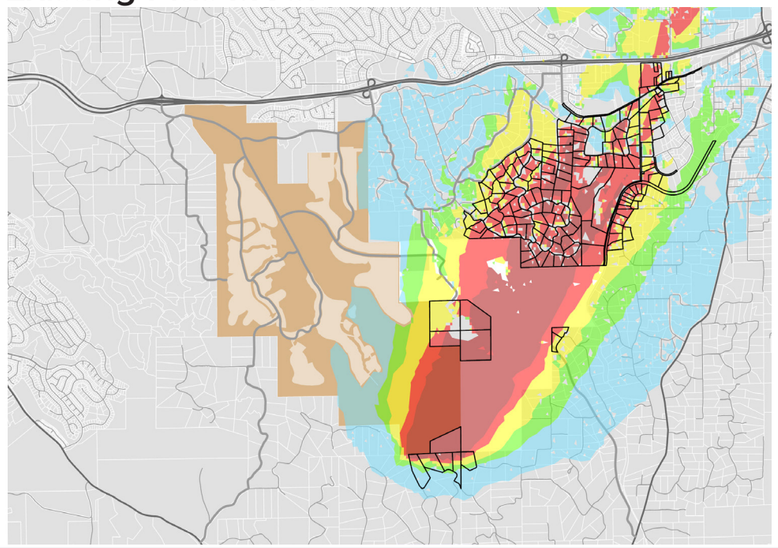
Evacuation Vehicle Trips

212 Existing Evacuees

Total Time to Safety (minutes)

19.8

Existing Plus MVSP



Vulnerable Evacuees

159 Existing Population
67 Existing Households
12 Existing Employees

527 Project Population
198 Project Households
0 Project Employees

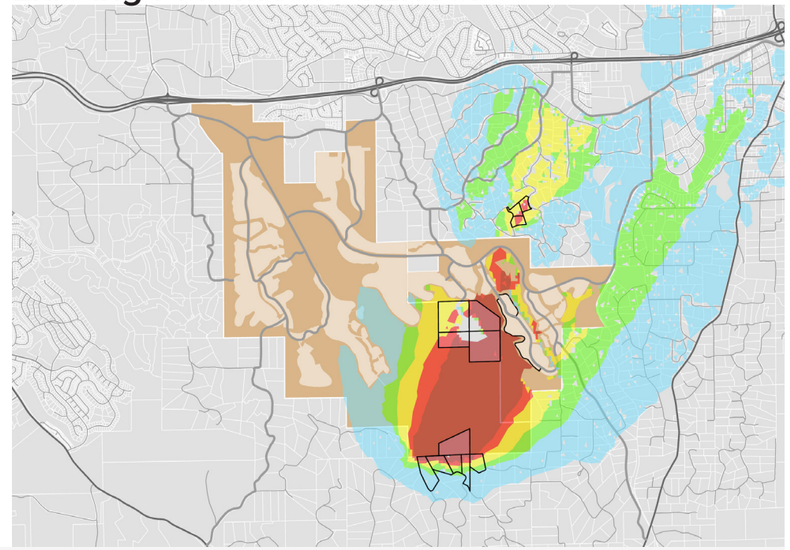
Evacuation Vehicle Trips

95 Existing Evacuees
342 Project Only Evacuees

Total Time to Safety (minutes)

18.2
19.3

Existing Plus MVSP & LRVSP



Vulnerable Evacuees

0 Existing Population
0 Existing Households
0 Existing Employees

404 Project Population
160 Project Households
0 Project Employees

Evacuation Vehicle Trips

0 Existing Evacuees
303 Project Only Evacuees

Total Time to Safety (minutes)

N/A
18.2

Fire Progression (minutes): 30 | 60 | 120 | 180 | 240 | Project Area | Project Residential Area | Vulnerable Parcels | Evacuation Routes

Vulnerable evacuees are the population directly in the path of the fire (Red Area <= 60 minute fire progression). They are assumed to start self evacuation immediately, i.e., within 15 minutes of fire.

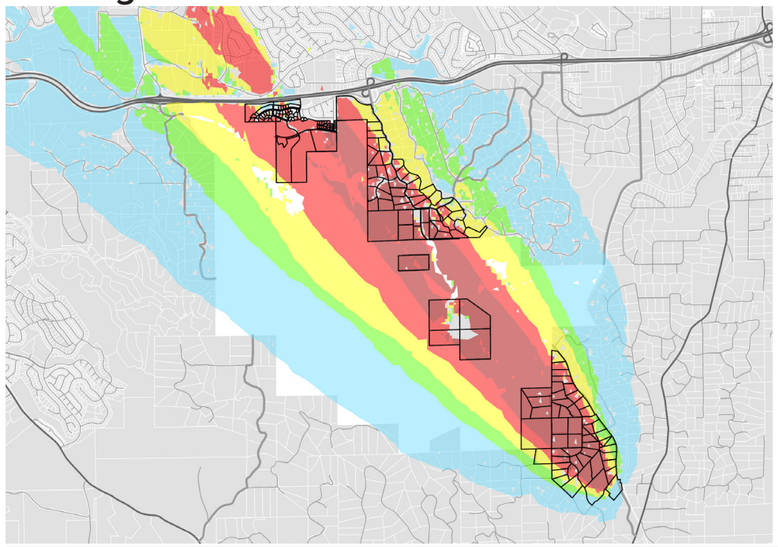
Travel time to safety is defined as the time required for the vulnerable evacuees to exit the red area.

Figure 13

Travel Time to Safety for Vulnerable Evacuees Fire Scenario 4

Evacuation Begins at 11am

Existing



Vulnerable Evacuees

557 Existing Population **235** Existing Households **15** Existing Employees

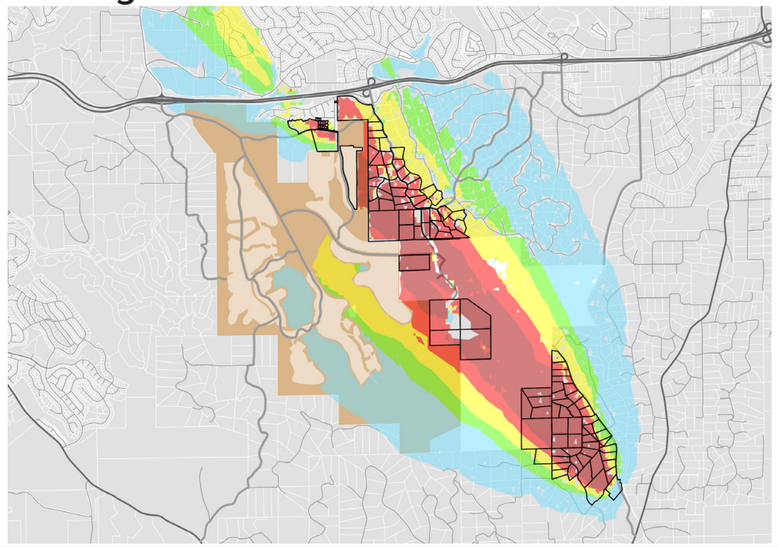
Evacuation Vehicle Trips

445 Existing Evacuees

Total Time to Safety (minutes)

20.4

Existing Plus MVSP



Vulnerable Evacuees

301 Existing Population **125** Existing Households **12** Existing Employees

132 Project Population **50** Project Households **0** Project Employees

Evacuation Vehicle Trips

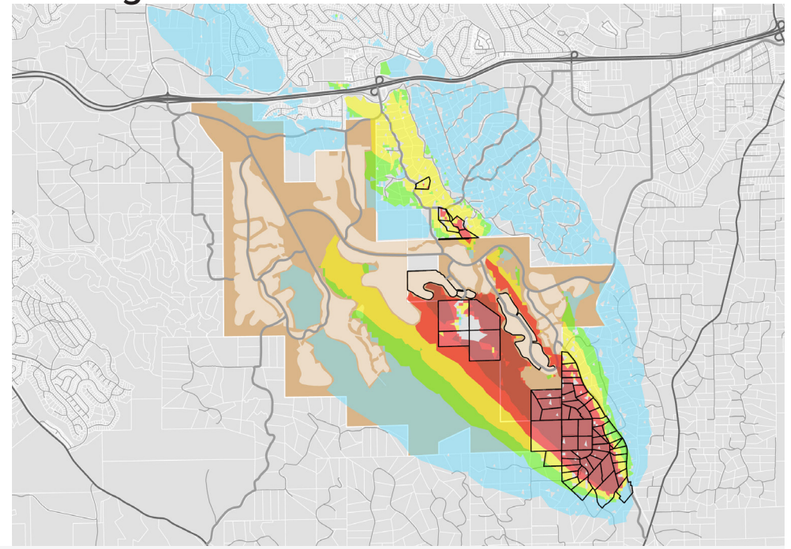
237 Existing Evacuees **95** Project Only Evacuees

Total Time to Safety (minutes)

19.9

19.1

Existing Plus MVSP & LRVSP



Vulnerable Evacuees

207 Existing Population **86** Existing Households **0** Existing Employees

323 Project Population **128** Project Households **0** Project Employees

Evacuation Vehicle Trips

163 Existing Evacuees **243** Project Only Evacuees

Total Time to Safety (minutes)

19.9

18.2

Fire Progression (minutes): 30 60 120 180 240 Project Area Project Residential Area Vulnerable Parcels Evacuation Routes

Vulnerable evacuees are the population directly in the path of the fire (Red Area <= 60 minute fire progression). They are assumed to start self evacuation immediately, i.e., within 15 minutes of fire.

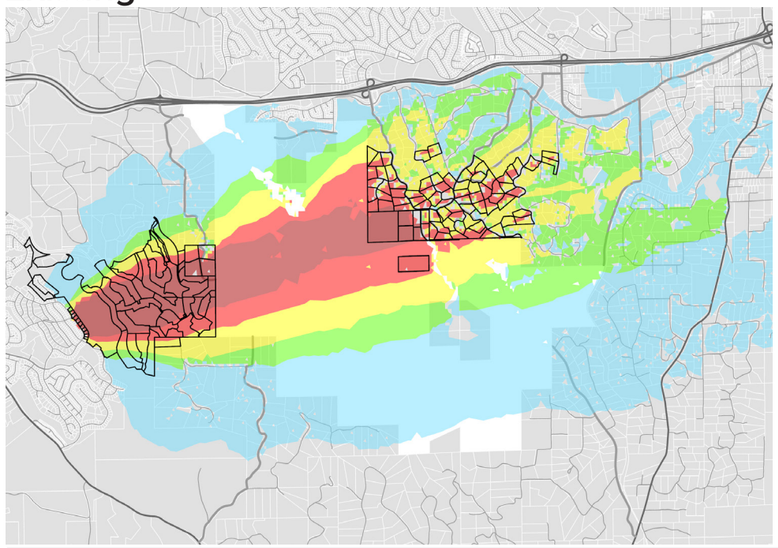
Travel time to safety is defined as the time required for the vulnerable evacuees to exit the red area.

Figure 14

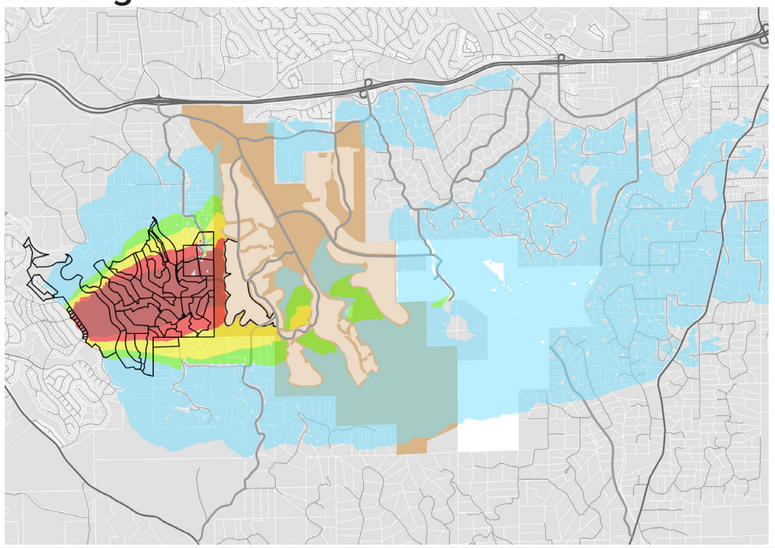
Travel Time to Safety for Vulnerable Evacuees Fire Scenario 7

Evacuation Begins at 7am

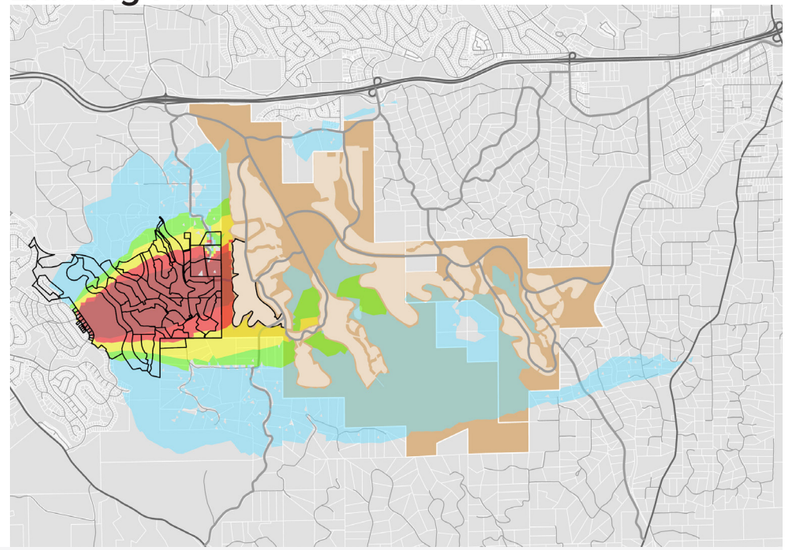
Existing



Existing Plus MVSP



Existing Plus MVSP & LRVSP



Fire Progression (minutes): 30 60 120 180 240 Project Area Project Residential Area Vulnerable Parcels Evacuation Routes

Vulnerable Evacuees

112 Existing Population **46** Existing Households **6** Existing Employees

124 Project Population **49** Project Households **0** Project Employees

Vulnerable Evacuees

75 Existing Population **29** Existing Households **0** Existing Employees

124 Project Population **49** Project Households **0** Project Employees

Vulnerable Evacuees

75 Existing Population **29** Existing Households **0** Existing Employees

124 Project Population **49** Project Households **0** Project Employees

Evacuation Vehicle Trips

97 Existing Evacuees

Evacuation Vehicle Trips

55 Existing Evacuees **93** Project Only Evacuees

Evacuation Vehicle Trips

55 Existing Evacuees **93** Project Only Evacuees

Total Time to Safety (minutes)

17.7

Total Time to Safety (minutes)

17.5

18.1

Total Time to Safety (minutes)

17.5

18.1

Vulnerable evacuees are the population directly in the path of the fire (Red Area <= 60 minute fire progression). They are assumed to start self evacuation immediately, i.e., within 15 minutes of fire.

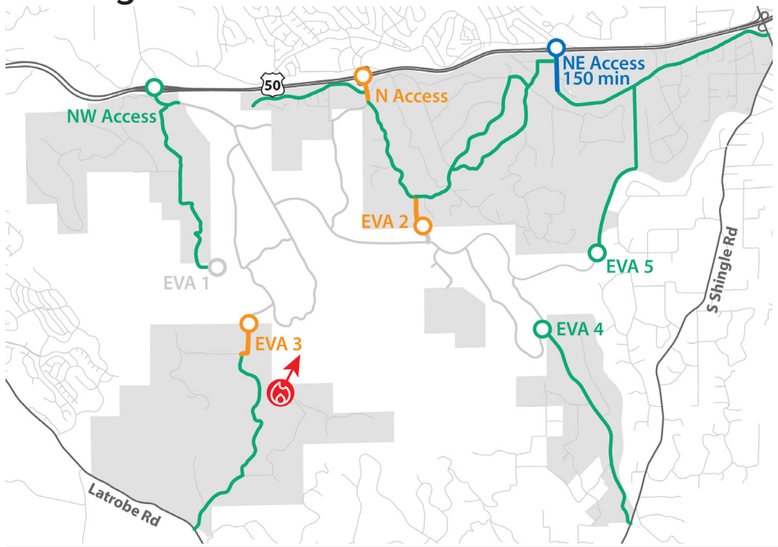
Travel time to safety is defined as the time required for the vulnerable evacuees to exit the red area.

Figure 15

Travel Time to Safety for Vulnerable Evacuees Fire Scenario 16

Evacuation Begins at 1pm

Existing



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

8,057 Project Population | **3,236** Project Households | **1,595** Project Employees

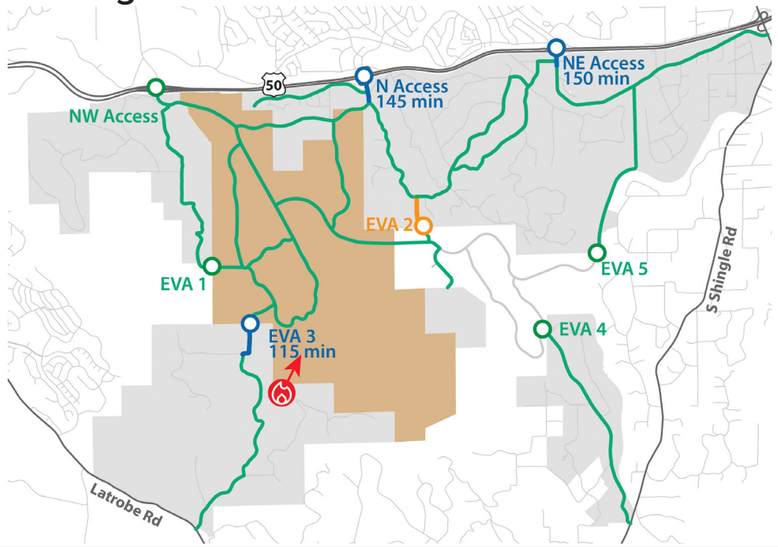
Evacuation Vehicle Trips

1,596 Existing Evacuees

Total Time to Evacuation (minutes)

188

Existing Plus MVSP



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

8,057 Project Population | **3,236** Project Households | **1,595** Project Employees

Evacuation Vehicle Trips

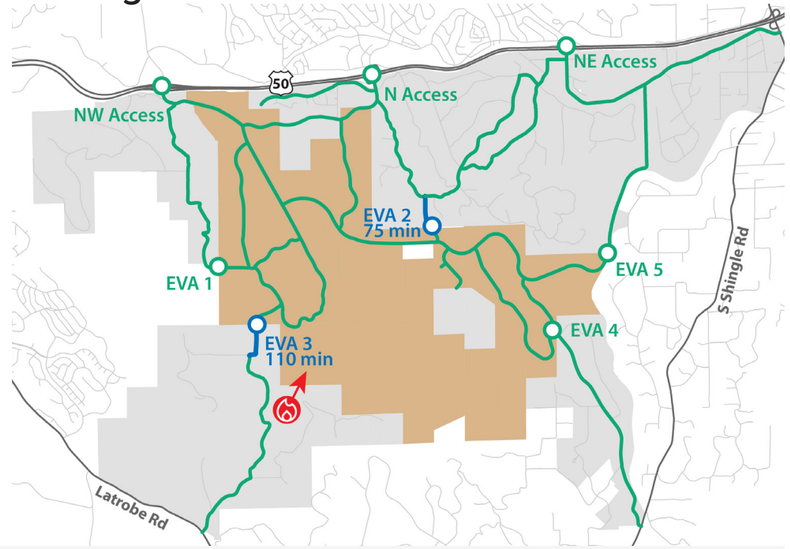
1,596 Existing Evacuees | **5,864** Project Only Evacuees

Total Time to Evacuation (minutes)

186

189

Existing Plus MVSP & LRVSP



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

10,079 Project Population | **4,368** Project Households | **1,595** Project Employees

Evacuation Vehicle Trips

1,596 Existing Evacuees | **7,080** Project Only Evacuees

Total Time to Evacuation (minutes)

186

196

Fire Location and Wind Direction

Evacuation Routes: Available | Not Available | Partially Available (minutes)

Existing Evacuation Area | Project Evacuation Area

Evacuation window is 180 minutes.

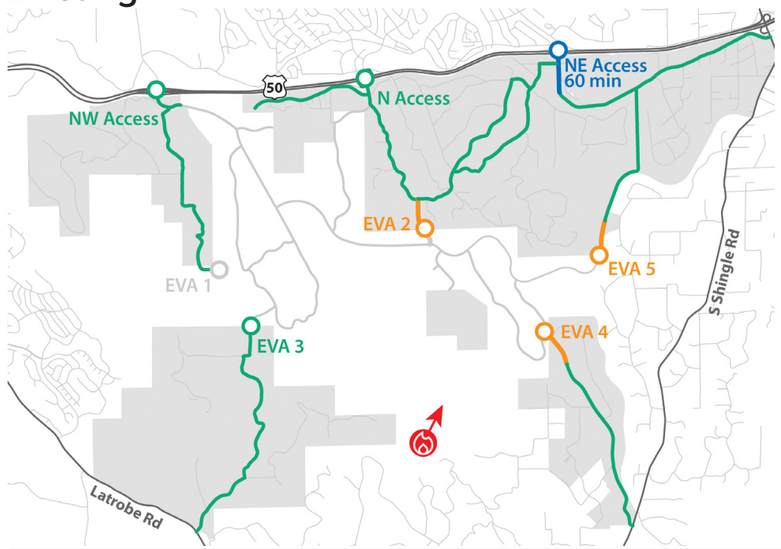
Total time required to evacuate is evacuation window + time required to exit the evacuation area for evacuees starting evacuation within the last 15 minutes.

Figure 16

Total Travel Time to Evacuate to the Evacuation Area
Fire Scenario 2

Evacuation Window 11am - 2pm

Existing



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

8,057 Project Population | **3,236** Project Households | **1,595** Project Employees

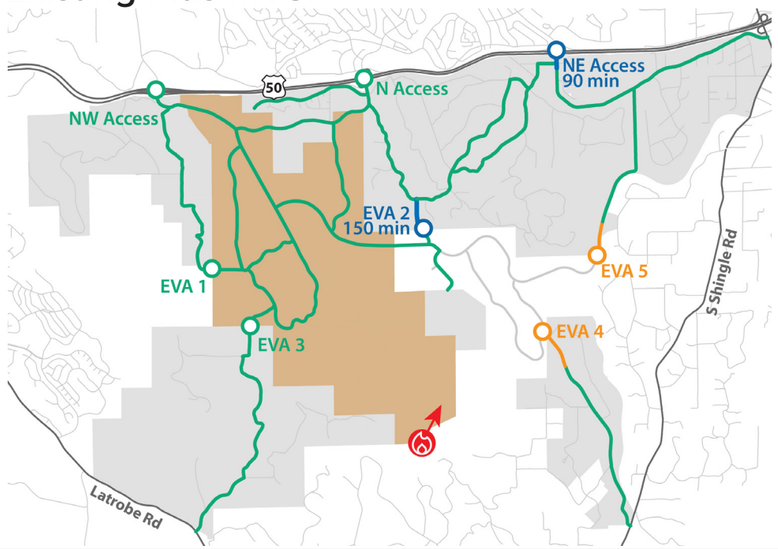
Evacuation Vehicle Trips

1,596 Existing Evacuees

Total Time to Evacuation (minutes)

187

Existing Plus MVSP



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

8,057 Project Population | **3,236** Project Households | **1,595** Project Employees

Evacuation Vehicle Trips

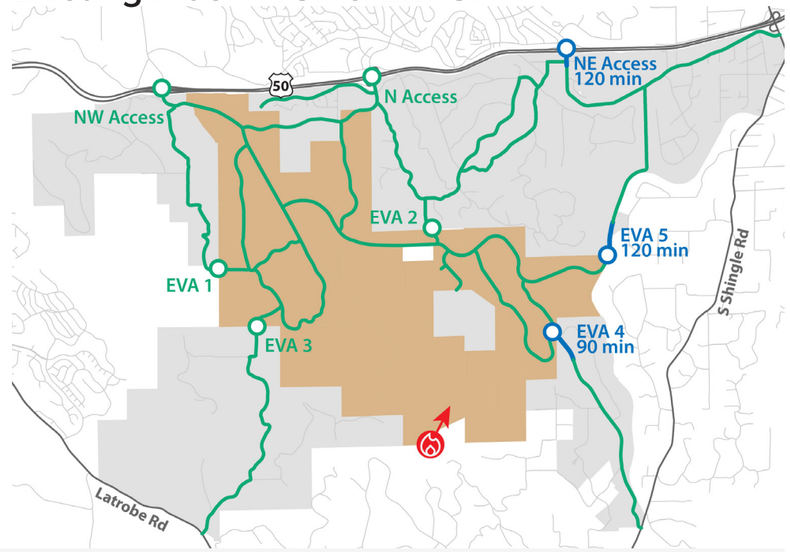
1,596 Existing Evacuees | **5,864** Project Only Evacuees

Total Time to Evacuation (minutes)

192

203

Existing Plus MVSP & LRVSP



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

10,861 Project Population | **4,368** Project Households | **1,595** Project Employees

Evacuation Vehicle Trips

1,596 Existing Evacuees | **7,080** Project Only Evacuees

Total Time to Evacuation (minutes)

187

198

Fire Location and Wind Direction

Evacuation Routes: Available | Not Available | Partially Available (minutes)

Existing Evacuation Area

Project Evacuation Area

Evacuation window is 180 minutes.

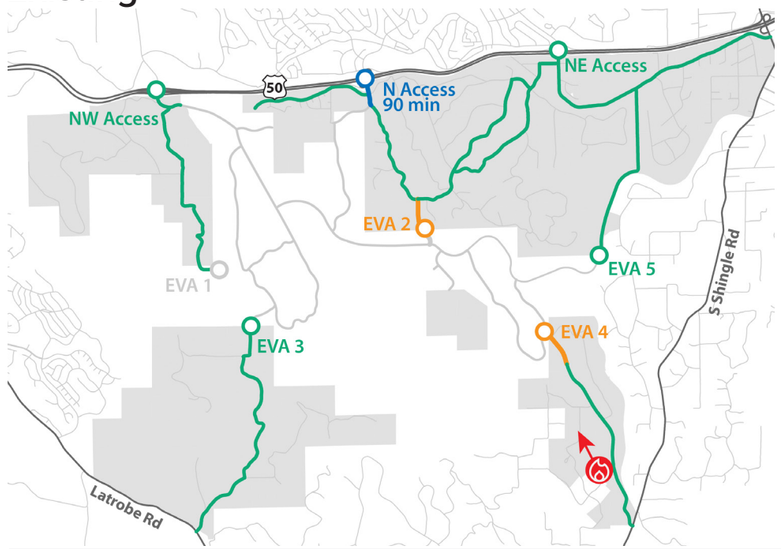
Total time required to evacuate is evacuation window + time required to exit the evacuation area for evacuees starting evacuation within the last 15 minutes.

Figure 17

Fire Scenario 4

Evacuation Window 11am - 2pm

Existing



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

8,057 Project Population | **3,236** Project Households | **1,595** Project Employees

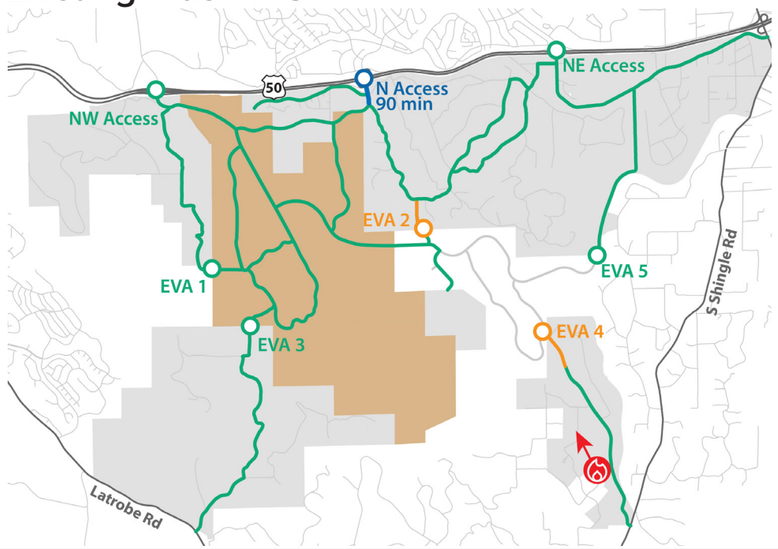
Evacuation Vehicle Trips

1,596 Existing Evacuees

Total Time to Evacuation (minutes)

188

Existing Plus MVSP



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

8,057 Project Population | **3,236** Project Households | **1,595** Project Employees

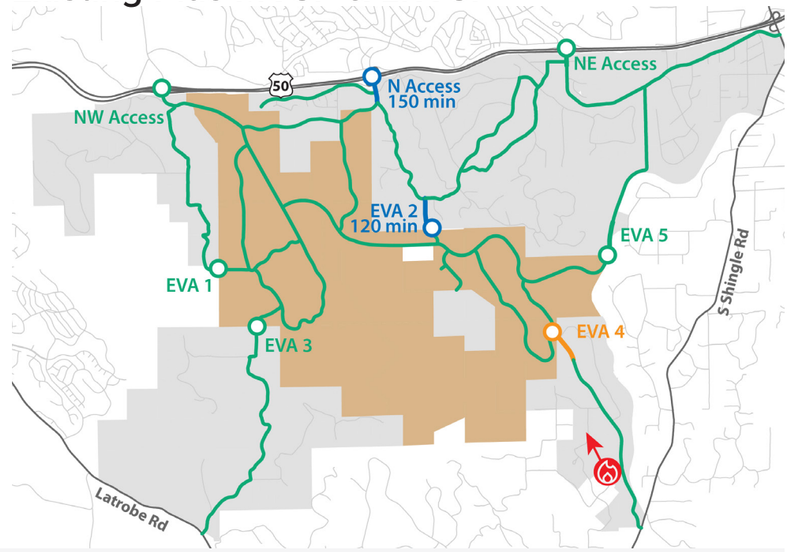
Evacuation Vehicle Trips

1,596 Existing Evacuees | **5,864** Project Only Evacuees

Total Time to Evacuation (minutes)

185
187

Existing Plus MVSP & LRVSP



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

10,861 Project Population | **4,368** Project Households | **1,595** Project Employees

Evacuation Vehicle Trips

1,596 Existing Evacuees | **7,080** Project Only Evacuees

Total Time to Evacuation (minutes)

186
188

Fire Location and Wind Direction

Evacuation Routes: Available | Not Available | Partially Available (minutes)

Existing Evacuation Area

Project Evacuation Area

Evacuation window is 180 minutes.

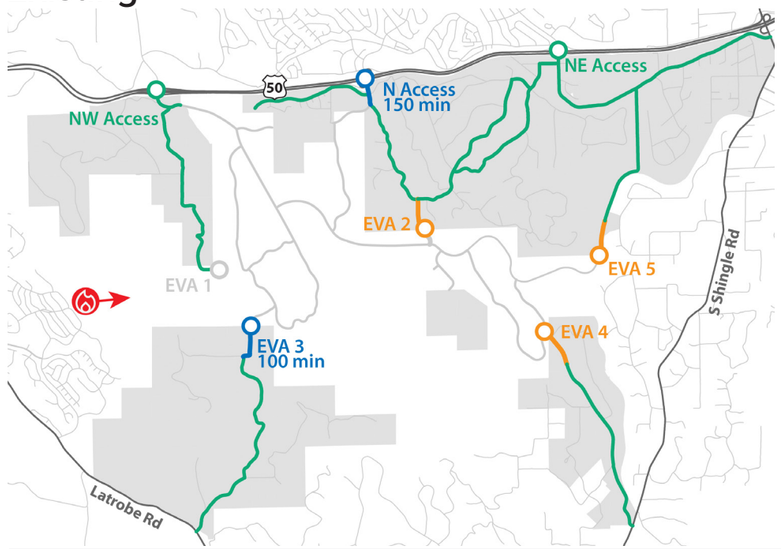
Total time required to evacuate is evacuation window + time required to exit the evacuation area for evacuees starting evacuation within the last 15 minutes.

Figure 18

Fire Scenario 7

Evacuation Window 7am - 10am

Existing



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

8,057 Project Population | **3,236** Project Households | **1,595** Project Employees

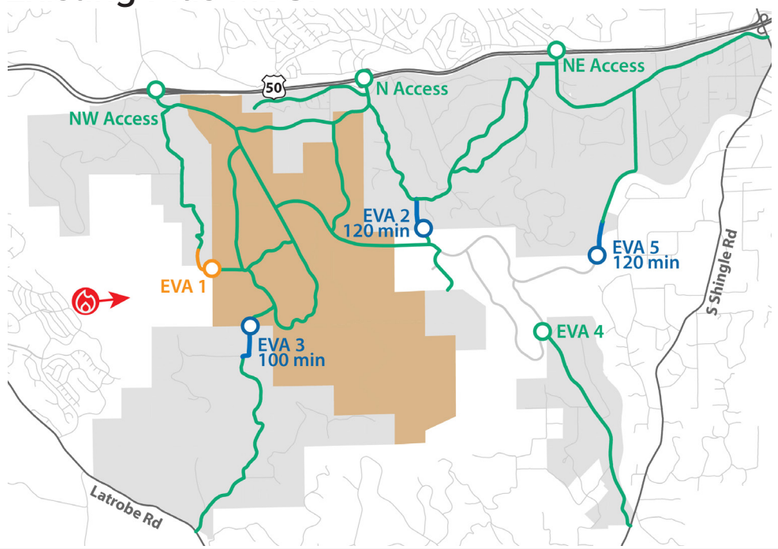
Evacuation Vehicle Trips

1,596 Existing Evacuees

Total Time to Evacuation (minutes)

188

Existing Plus MVSP



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

8,057 Project Population | **3,236** Project Households | **1,595** Project Employees

Evacuation Vehicle Trips

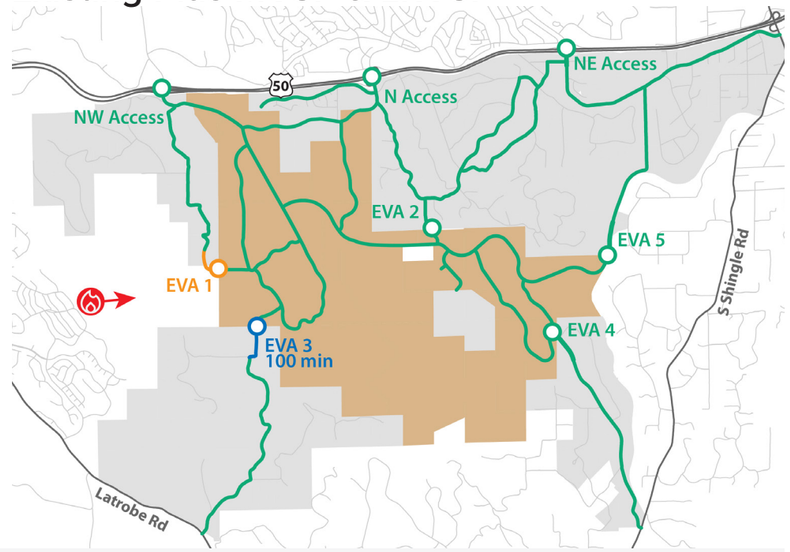
1,596 Existing Evacuees | **5,864** Project Only Evacuees

Total Time to Evacuation (minutes)

186

186

Existing Plus MVSP & LRVSP



Evacuees

2,804 Existing Population | **1,132** Existing Households | **1,090** Existing Employees

10,861 Project Population | **4,368** Project Households | **1,595** Project Employees

Evacuation Vehicle Trips

1,596 Existing Evacuees | **7,080** Project Only Evacuees

Total Time to Evacuation (minutes)

186

188

Fire Location and Wind Direction

Evacuation Routes: Available | Not Available | Partially Available (minutes)

Existing Evacuation Area | Project Evacuation Area

Evacuation window is 180 minutes.

Total time required to evacuate is evacuation window + time required to exit the evacuation area for evacuees starting evacuation within the last 15 minutes.

Figure 19

Fire Scenario 16

Evacuation Window 1pm - 4pm

Cumulative Conditions

Fehr & Peers, in coordination with Firesafe Planning Solutions, emergency service providers, and fire agencies identified study area and evacuation routes for analysis, which are shown on **Figure 2**.

The evacuation assessment includes the following four development scenarios that were analyzed under existing conditions:

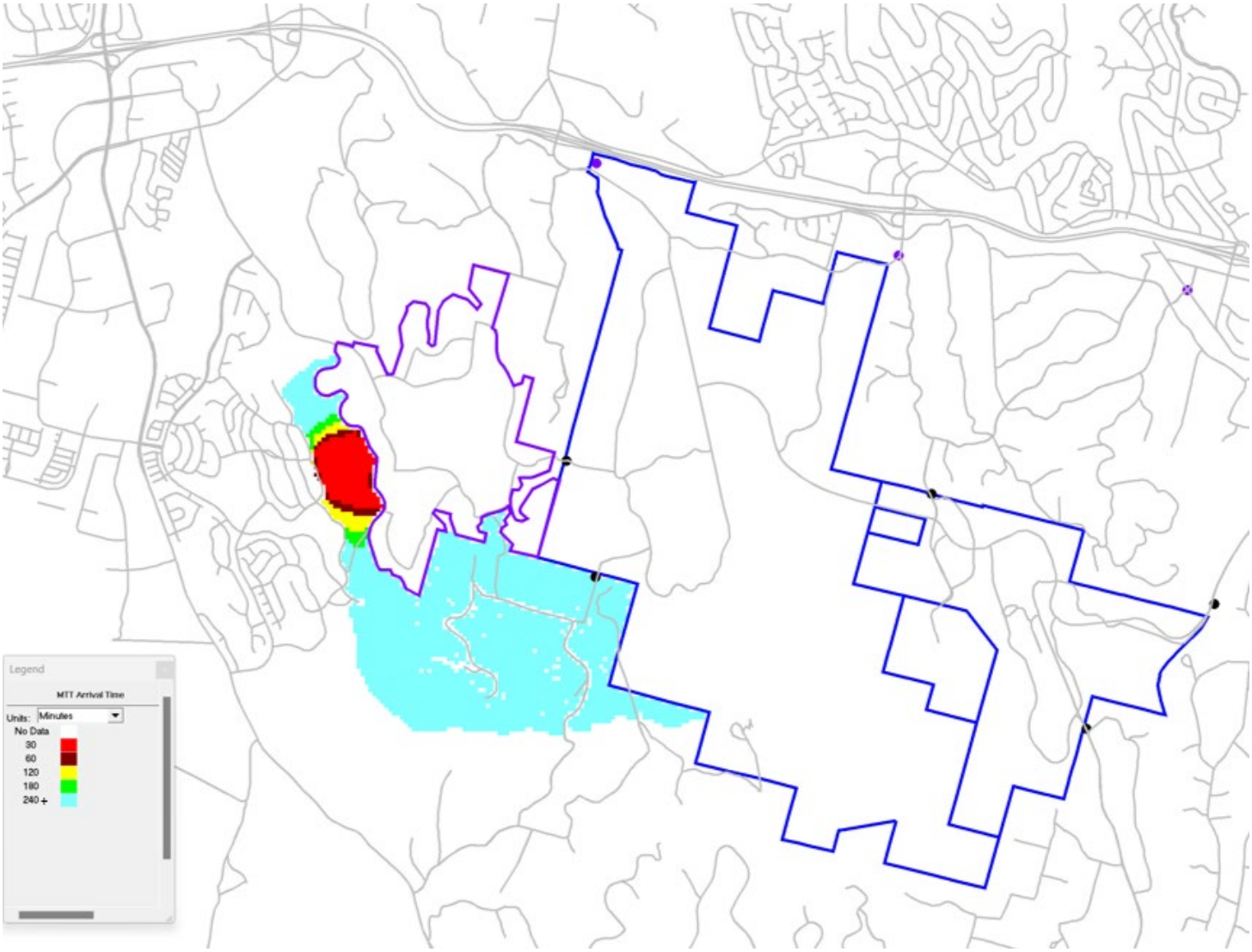
- No Project – Represents existing conditions (i.e., existing residents).
- Marble Valley Specific Plan – Represents existing conditions with buildout of the Marble Valley Specific Plan.
- Lime Rock Valley Specific Plan – Represents existing conditions with buildout of the Lime Rock Valley Specific Plan.
- Marble Valley & Lime Rock Valley Specific Plans – Represents existing conditions with buildout of both the Marble Valley and Lime Rock Valley Specific Plans.

The analysis results presented above for existing conditions are applicable to cumulative conditions, since the Project and proposed Lime Rock Specific Plan are the only significant development projects in the study area that would add substantial population and transportation facilities that may affect the evacuation routes that may be used by the existing communities in the study area.

East Ridge Village is an approved planned residential development between the Project (i.e., to the west) and the existing Blackstone community, east of Latrobe Road. As a planned development, East Ridge Village was not assumed in the evacuation time estimates presented above under existing conditions. In addition, East Ridge Village does not include any full access roadway connections to the Project or to the evacuation routes shown on **Figure 2**.

However, future development of East Ridge Village would affect the behavior of Fire Scenario 16 by reducing the progression of the fire event under cumulative conditions. **Figure 20** shows the progression of Fire Scenario 16 with the addition of the approved East Ridge Village development. As shown, East Ridge Village would substantially delay the progression of the fire event to the point where the fire would take 200 or more minutes to reach the Project and the fire would not burn through the project to existing communities to the east. slower progression of the fire due to hardened site conditions and removal of wildland fuels (i.e., from development), and vegetation and fuels management implemented as part of East Ridge Village.

Figure 20: Fire Scenario 16 With Approved East Ridge Village Development



Appendix A –

Wildland Fire Evacuation Risk Report, Fire Behavior – The Village of Marble Valley Project

Appendix B –

First Responders Survey (Camp Fire, Butte County)

(Under Separate Cover)