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SUBJECT: Construction Air Quality and Greenhouse Gas Screening Evaluation for the Master Drainage Plan - Storm Drain Improvement Project (Pennsylvania Avenue and 6th Street) - City of Beaumont CA

This Air Quality (AQ) and Greenhouse Gas (GHG) screening letter evaluates potential impacts from construction improvements to the storm drainage system in the City of Beaumont, CA. The project involves installing approximately 5,000 feet of reinforced concrete pipe (RCP) with a diameter of either 84 or 102-inches as well as 24-inch laterals, catch basins, and junction structures to upgrade the existing system. Any interfering drainage systems will be abandoned in place or removed.

Project Location/Description

The Proposed Project would construct approximately 5,000 linear feet of 84-in to 102-inch RCP along 6th Street, Pennsylvania Avenue, and East 1st Street in the City to handle anticipated future flows. Manholes would be constructed for maintenance access at intervals of no more than 500 feet at the end of each line. Additional components to be installed include inlets and outlets to facilitate efficient entry and exit from the system. The RCP would feature grated openings to prevent the accumulation of debris. Some RCP demolition would occur but most of the existing structures would be protected. Approximately 13,000 cubic yards of material will be removed from the site to allow for the installation of the RCP and subgrade and approximately 5,000 cubic yards of material will be brought back to backfill and build up the structure necessary to reconstruct the roads.

The Proposed Project would include traffic control measures such as signs, barriers, and flaggers to ensure safety and maintain vehicle and pedestrian access along the right-of-way. Best management practices (BMPs) would include basins and silt fences to address soil erosion and protect water quality during construction. The affected right-of-way would be restored after installation of the RCP. The RCP would be installed at a depth no greater than 25 feet to allow for future construction and improvements in the area. Construction is anticipated to commence in the summer of 2025 and conclude in the spring of 2026.

Figure 1: Project Vicinity

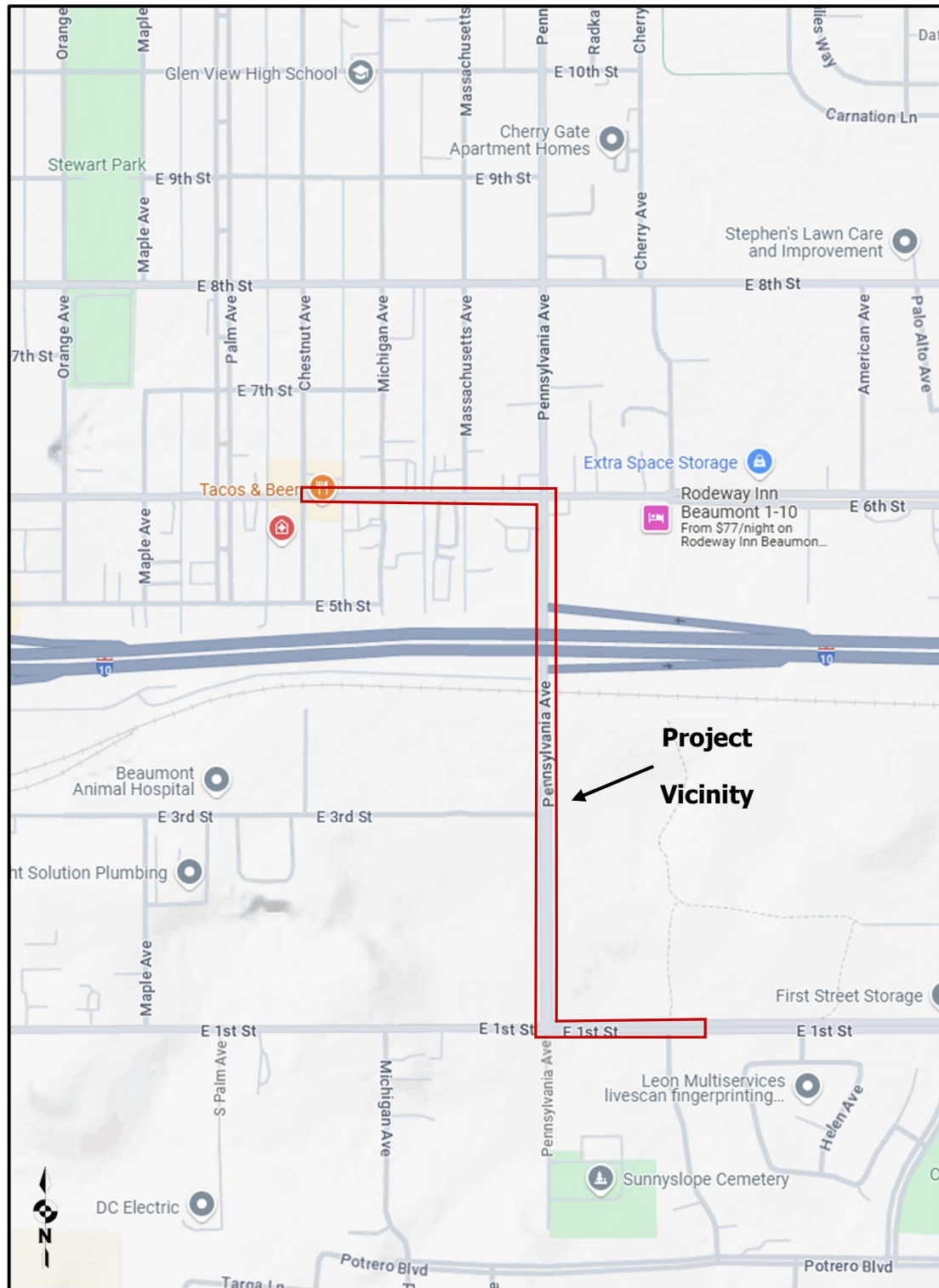
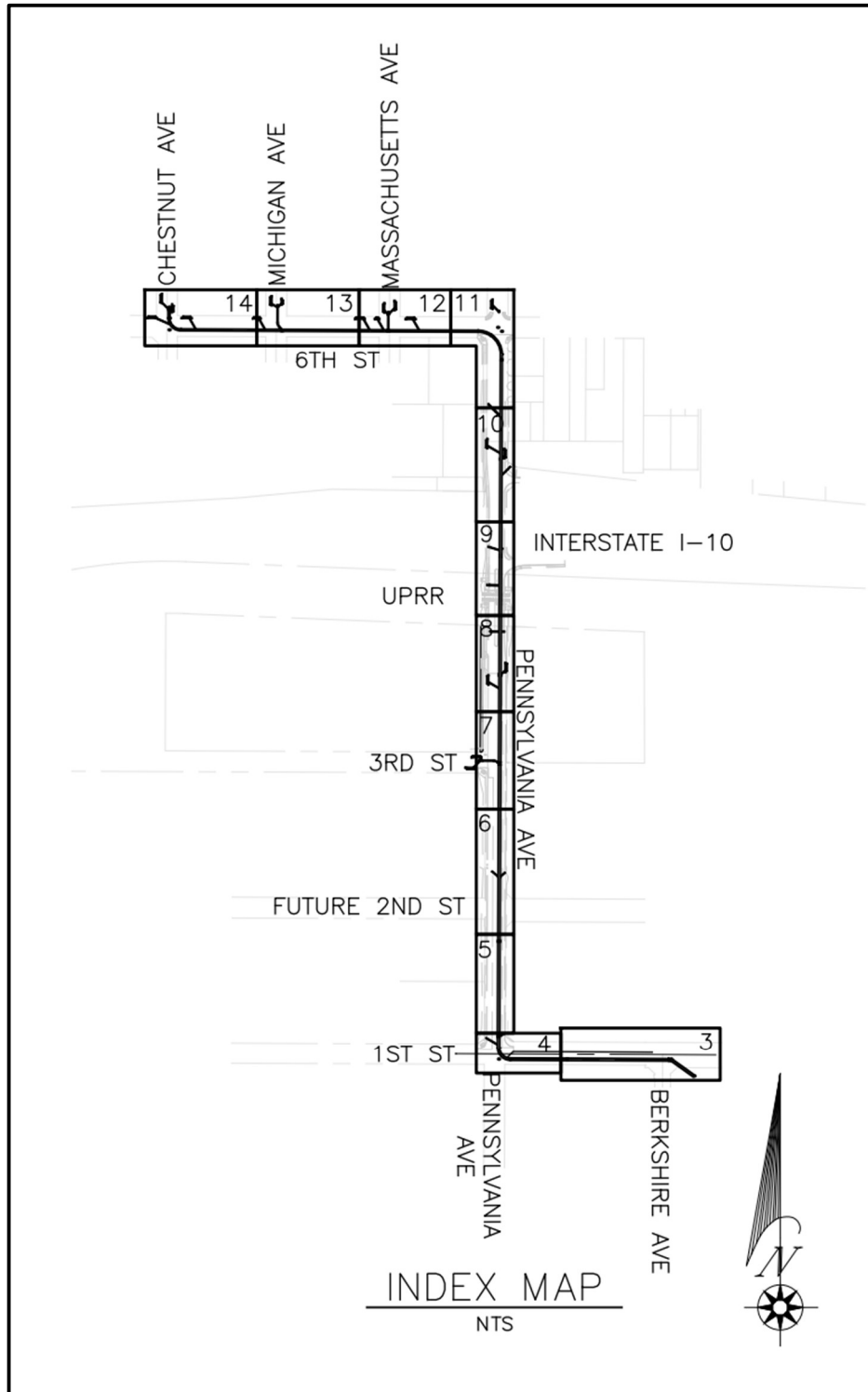


Figure 2: Proposed Project Configuration



City of Beaumont - Air Quality Thresholds of Significance

To determine whether a project would create potential air quality impacts, the City of Beaumont uses South Coast Air Quality Management District's (SCAQMD) Air Quality Thresholds. The screening thresholds for construction and daily operations are shown in Table 1.

Table 1: Screening Threshold for Criteria Pollutants

Pollutant	Total Emissions - Pounds per Day (lb/day)
Respirable Particulate Matter (PM ₁₀ and PM _{2.5})	150 and 55
Nitrogen Oxide (NO _x) - Construction	100
Sulfur Oxide (SO _x)	150
Carbon Monoxide (CO)	550
Volatile Organic Compounds (VOCs) - Construction	75

The U.S. Environmental Protection Agency (U.S. EPA) uses the term Volatile Organic Compounds (VOC) and the California Air Resources Board's (CARB's) Emission Inventory Branch (EIB) uses the term Reactive Organic Gases (ROG) to essentially define the same thing. There are minor deviations between compounds that define each term. However, for purposes of this study we will assume they are essentially the same due to the fact SCAQMD interchanges these words and because CalEEMod 2022.1 directly calculates ROG in place of VOC.

In addition, the SCAQMD requires compliance with localized significance thresholds (LSTs) for NO₂, CO, PM_{2.5} and PM₁₀. The LST methodology was developed to be used as a tool to assist lead agencies to analyze localized impacts associated with project-specific level proposed projects and would not be applicable to regional projects such as general plans.

The LST methodology was last updated to incorporate the most recent ambient air quality standards (South Coast Air Quality Management District, 2008). The LST methodology is often utilized by most agencies governed under SCAQMD CEQA review. SCAQMD developed mass rate look-up tables for projects to assist agencies with development of LSTs (South Coast Air Quality Management District, 2014)

The LSTs derived by SCAQMD which differentiate by source receptor areas. The Project would be represented by SRA #29 since the Project area is Nearest to the Banning Airport area. LSTs are provided for project areas which could be best represented by any size ranging between 1 and 5 acres. Projects larger than this would be required to generate site specific LST models. The project site area will likely only have up to 2 acres of exposed materials, so a 2-acre sized mass look table threshold should be applied to the Project which is conservative.

The Project boundary is roughly adjacent to homes in some cases so the recommendations by SCAQMD is to use the 25-meter LST threshold for all receptors up to 25 meters away. Table 2 below shows the worst-case project LST at the nearest receptor from the Project boundary (SCAQMD, 2009).

Table 2: LST Emission Thresholds (2-Acre Site) – lb/day

Pollutant	LST @ 25 meters
CO	1,541
PM ₁₀ (Construction)	10
PM _{2.5} (Construction)	6
NO ₂ (Corrected utilizing NO ₂ /NO _x Ratio)	149

City of Beaumont - Greenhouse Gas Thresholds of Significance

To determine whether a project would create potential air quality impacts, the City of Beaumont uses the County of Riverside screening thresholds.

The County's Air Quality Element of the General Plan includes specific policies to address GHG emissions. The implementation mechanisms for these GHG-related policies are the Screening Tables for New Development, included in Appendix N of the General Plan. The Screening Tables allow new development projects to be a streamlined option for complying with the CEQA requirements for addressing GHG emissions. The screening tables are setup similar to a checklist with points allocated to certain elements that reduce greenhouse gas emissions; if the project garners 100 points (by including enough GHG-reducing elements), then the project is consistent with Riverside County's plan for reducing emissions (County of Riverside, 2019).

Projects that are sufficiently small enough will have the option of preparing a project-specific technical analysis to quantify and mitigate GHG emissions. A threshold level above 3,000 Metric Ton (MT) CO₂e per year will be used to identify projects that require the use of Screening Tables or a project-specific technical analysis to quantify and mitigate projects. Since this project involves the linear construction of drainage pipes within a 5,000-foot alignment along an existing roadway, which will be repaved with asphalt upon completion, significant operational GHG emissions are not anticipated.

Construction Emissions Calculation Methodology

Air Quality impacts related to construction will be calculated using the latest CalEEMod 2022.1 air quality model which was developed by the South Coast Air Quality Management District

(SCAQMD). The CalEEMod input/output are provided in **Attachment A** to this report. Based on review of the site, the total Project area is approximately 12.6 acres over the entire alignment and could export as much as 13,000 CY of materials offsite and import as much as 5,000 CY of materials onsite. This estimate is considered conservative and would likely be less. The estimated construction equipment, phasing and durations are provided below in Table 3.

Table 3: Expected Construction Equipment

Equipment Identification	Start Dates	Completion Dates	Quantity
Linear, Excavation and Export	8/1/2025	11/13/2025	
Off-Highway Trucks			1
Excavators			1
Concrete/Industrial Saws			2
Skid Steer Loaders			1
Linear, Set Drainage Piping Network & Sub-Grade Construction including Material Import	10/15/2025	1/27/2026	
Skid Steer Loaders			1
Excavators			1
Tractors/Loaders/Backhoes			1
Plate Compactors			1
Off-Highway Trucks			1
Linear, Asphalt Paving Placement	1/28/2026	3/10/2026	
Off-Highway Trucks			1
Rollers			1
Pavers			1
Paving Equipment			1

The California Air Resources Board (CARB) regulations required that – starting in 2012 – all off-road equipment produced needs to meet the basic requirements for Tier 4 compliance (Tier 4 Interim) (CARB, 2023). Offroad equipment fleets are managed by CARB and are typically based on total horsepower owned. Owners are limited to what types of equipment they must maintain as their fleet and can include equipment from rental companies. After 2023, no fleet owner can add equipment less than Tier 3 to their fleet (California Air Resources Board, 2022).

Based on this, the Project would at a minimum use Tier 3 construction equipment having diesel particulate filters installed and would wet the soil daily during grading operations. These design features were incorporated in all modeling and though it is expected that all equipment used for the construction of this Project meets this assumption without intervention, it is

recommended that these design features be included in the conditions of approval for the Grading Permits which would be issued by the City of Beaumont.

Air Quality Construction Findings

Utilizing the CalEEMod inputs for the model as discussed above and shown in ***Attachment A*** to this report, we find that construction of the project generates less than significant impacts based on SCAQMD's significance thresholds and localized significance thresholds applied at 25 meters from the Project boundary (See Table 4 below). These emission calculations assume design features discussed above are included. Based on this, air quality mitigation for construction would not be required. Cumulative impacts would not be expected since calculated emissions are so low relative to the City's significance thresholds.

Table 4: Expected Construction Emissions Summary (lb/day)

	ROG	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Maximum Daily Construction Emissions	0.94	24.5	25	0.06	1.78	1.2
City Screening Threshold	75	100	550	150	150	55
LST at 25 meters from Project		149	1,541		10	6
Exceeds Screening Threshold	No	No	No	No	No	No

The Project would have the potential to generate onsite odors during construction which normally include short term activities such as paving and possibly painting. Impacts associated with these sources are short term in terms of durations which is identified in Table 3 above. Given this, odor impacts would therefore be considered less than significant.

Conflict with or obstruct implementation of the SCAQMD AQMP or applicable portions of the State Implementation Plan (SIP)?

The project is to install underground drainage piping repair project and would not modify any existing uses. Given this the Project would be consistent with the City's General Plan. The Project has been shown to generate construction emissions that would be less than significant when compared to the City's air quality significance thresholds. Therefore, as the project would not create a new land use or generate construction emissions exceeding the City's approved air quality significance thresholds, it would not conflict with the implementation of the City's General Plan or SCAQMD air quality management plans.

Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation?

The Project would generate less than significant construction emissions when compared to SCAQMD air quality thresholds, given this, the project would not violate any applicable air quality standards.

Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable Federal or State ambient air quality standard (PM10, PM2.5 or exceed quantitative thresholds for O3 precursors, oxides of nitrogen [NOX] and Volatile Organic Compounds [VOCs])?

Based on this analysis, the expected construction and emissions were found to be less than significant when compared to SCAQMD air quality thresholds. In addition, the emissions expected would be small when compared to SCAQMD thresholds. Given this, cumulative impacts or impacts which would be additive between the proposed Project and any nearby Project would not likely increase emissions to a point where SCAQMD thresholds would be exceeded in the general vicinity of the proposed Project. Given this, the project would have a less than significant cumulative impact.

Expose sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations?

The proposed Project construction would be adjacent to homes along the construction alignment. The project is relatively small and would not generate significant levels of air quality emissions when compared to City thresholds based on screening thresholds developed by SCAQMD including LSTs for the closest residential receptors using a 25-meter LST. In addition, as a design feature, all construction equipment would be Tier 3 or better and diesel particulates would be filtered. The Project would also wet all soil materials daily to reduce dust. Therefore, the proposed project would not expose sensitive receptors to significant air quality emissions, and no adverse impacts to human health are anticipated.

Create objectionable odors affecting a substantial number of people?

The Project would have the potential to generate onsite odors during construction which normally include short term activities such as paving and possibly painting. Impacts associated with these sources are short term and would therefore be considered less than significant. Also, since operational odors are not typically generated from drainage facilities, a less than significant odor impact would be expected from Operations. Given this, the Project would not create a significant odor impact affecting a substantial number of people.

GHG Construction Findings

Will the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The proposed project is estimated to generate approximately 203 MT of CO₂e during the 2025 construction year and 60.6 MT of CO₂e during 2026. If construction were to occur entirely within a single year, the total GHG emissions would be 263.6 MT of CO₂e, which remains well below the County's screening threshold of 3,000 MT CO₂e. Additionally, as there will be no operational emissions once construction is complete, the project will never exceed the 3,000 MT CO₂e threshold. Therefore, the project would not result in significant direct or indirect impacts under CEQA and would not require further analysis or mitigation.

Will the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The project will not conflict with any applicable plan, policy, or regulation adopted to reduce greenhouse gas emissions. The project is expected to produce no more than a total of 263.6 MT of CO₂e per year, contributing minimally to the cumulative environmental impact. This amount is considered less than significant in the context of the overall greenhouse gas inventory. Therefore, it aligns with existing policies and regulations aimed at reducing emissions and does not require further analysis or mitigation.

Given this, the project would be considered to generate less than significant AQ and GHG emissions. If you have any questions, please do not hesitate to contact me directly at (760) 473-1253.

Sincerely,
Ldn Consulting, Inc.

Draft

Jeremy Loudon

Attachments: CalEEMod Model Results

References:

- California Air Resources Board. (2022). *Guide to Off-Road Vehicle & Equipment Regulations*. Retrieved from https://ww2.arb.ca.gov/sites/default/files/offroadzone/pdfs/offroad_booklet.pdf
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Beaumont MDP Line 2, Stage 1 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Beaumont MDP Line 2, Stage 1
Construction Start Date	1/1/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	19.2
Location	33.923667361571006, -116.96613626143363
County	Riverside-South Coast
City	Beaumont
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5632
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

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
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User Defined Linear	0.95	Mile	12.6	0.00	—	—	—	Install 104",84"and 24" Main Drainage System including Laterals, junctions and drains
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1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-6	Use Diesel Particulate Filters

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.56	13.8	13.6	0.03	0.65	0.47	1.12	0.60	0.13	0.73	—	3,785	3,785	0.12	0.26	3,868
Mit.	0.56	13.8	13.6	0.03	0.12	0.47	0.60	0.11	0.13	0.24	—	3,785	3,785	0.12	0.26	3,868
% Reduced	—	—	—	—	81%	—	47%	81%	—	67%	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.94	24.5	25.0	0.06	1.11	0.68	1.78	1.01	0.19	1.20	—	6,580	6,580	0.22	0.39	6,703
Mit.	0.94	24.5	25.0	0.06	0.20	0.68	0.88	0.19	0.19	0.37	—	6,580	6,580	0.22	0.39	6,703
% Reduced	—	—	—	—	82%	—	51%	81%	—	69%	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.17	4.49	4.53	0.01	0.20	0.13	0.33	0.19	0.03	0.22	—	1,204	1,204	0.04	0.07	1,227
Mit.	0.17	4.49	4.53	0.01	0.04	0.13	0.16	0.03	0.03	0.07	—	1,204	1,204	0.04	0.07	1,227
% Reduced	—	—	—	—	82%	—	50%	81%	—	69%	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.82	0.83	< 0.005	0.04	0.02	0.06	0.03	0.01	0.04	—	199	199	0.01	0.01	203
Mit.	0.03	0.82	0.83	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	199	199	0.01	0.01	203
% Reduced	—	—	—	—	82%	—	50%	81%	—	69%	—	—	—	—	—	—

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.56	13.8	13.6	0.03	0.65	0.47	1.12	0.60	0.13	0.73	—	3,785	3,785	0.12	0.26	3,868
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.94	24.5	25.0	0.06	1.11	0.68	1.78	1.01	0.19	1.20	—	6,580	6,580	0.22	0.39	6,703
2026	0.44	10.6	12.6	0.02	0.46	0.26	0.69	0.42	0.07	0.47	—	2,790	2,790	0.10	0.13	2,833
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.17	4.49	4.53	0.01	0.20	0.13	0.33	0.19	0.03	0.22	—	1,204	1,204	0.04	0.07	1,227
2026	0.06	1.43	1.65	< 0.005	0.06	0.03	0.09	0.05	0.01	0.06	—	361	361	0.01	0.01	366
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.03	0.82	0.83	< 0.005	0.04	0.02	0.06	0.03	0.01	0.04	—	199	199	0.01	0.01	203
2026	0.01	0.26	0.30	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	—	59.8	59.8	< 0.005	< 0.005	60.6

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.56	13.8	13.6	0.03	0.12	0.47	0.60	0.11	0.13	0.24	—	3,785	3,785	0.12	0.26	3,868
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.94	24.5	25.0	0.06	0.20	0.68	0.88	0.19	0.19	0.37	—	6,580	6,580	0.22	0.39	6,703
2026	0.44	10.6	12.6	0.02	0.08	0.26	0.33	0.07	0.07	0.13	—	2,790	2,790	0.10	0.13	2,833
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.17	4.49	4.53	0.01	0.04	0.13	0.16	0.03	0.03	0.07	—	1,204	1,204	0.04	0.07	1,227
2026	0.06	1.43	1.65	< 0.005	0.01	0.03	0.04	0.01	0.01	0.02	—	361	361	0.01	0.01	366
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.03	0.82	0.83	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	199	199	0.01	0.01	203
2026	0.01	0.26	0.30	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	59.8	59.8	< 0.005	< 0.005	60.6

3. Construction Emissions Details

3.1. 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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.51	12.2	12.7	0.02	0.62	—	0.62	0.57	—	0.57	—	2,207	2,207	0.09	0.02	2,215
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	12.2	12.7	0.02	0.62	—	0.62	0.57	—	0.57	—	2,207	2,207	0.09	0.02	2,215
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	2.50	2.62	< 0.005	0.13	—	0.13	0.12	—	0.12	—	454	454	0.02	< 0.005	455
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.46	0.48	< 0.005	0.02	—	0.02	0.02	—	0.02	—	75.1	75.1	< 0.005	< 0.005	75.3
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.46	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	84.6	84.6	< 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
Hauling	0.02	1.66	0.40	0.01	0.03	0.39	0.42	0.03	0.11	0.14	—	1,493	1,493	0.03	0.24	1,567
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.35	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	77.7	77.7	< 0.005	< 0.005	78.7
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
Hauling	0.02	1.73	0.41	0.01	0.03	0.39	0.42	0.03	0.11	0.14	—	1,494	1,494	0.03	0.24	1,565
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.2	16.2	< 0.005	< 0.005	16.4
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
Hauling	< 0.005	0.36	0.08	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	—	307	307	0.01	0.05	322
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.68	2.68	< 0.005	< 0.005	2.72
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
Hauling	< 0.005	0.07	0.02	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	50.8	50.8	< 0.005	0.01	53.3

3.2. 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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	12.2	12.7	0.02	0.09	—	0.09	0.09	—	0.09	—	2,207	2,207	0.09	0.02	2,215
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	12.2	12.7	0.02	0.09	—	0.09	0.09	—	0.09	—	2,207	2,207	0.09	0.02	2,215
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	2.50	2.62	< 0.005	0.02	—	0.02	0.02	—	0.02	—	454	454	0.02	< 0.005	455
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.46	0.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	75.1	75.1	< 0.005	< 0.005	75.3

Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.46	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	84.6	84.6	< 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
Hauling	0.02	1.66	0.40	0.01	0.03	0.39	0.42	0.03	0.11	0.14	—	1,493	1,493	0.03	0.24	1,567
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.35	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	77.7	77.7	< 0.005	< 0.005	78.7
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
Hauling	0.02	1.73	0.41	0.01	0.03	0.39	0.42	0.03	0.11	0.14	—	1,494	1,494	0.03	0.24	1,565
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.2	16.2	< 0.005	< 0.005	16.4
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
Hauling	< 0.005	0.36	0.08	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	—	307	307	0.01	0.05	322
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.68	2.68	< 0.005	< 0.005	2.72
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
Hauling	< 0.005	0.07	0.02	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	50.8	50.8	< 0.005	0.01	53.3

3.3. 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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	9.73	11.3	0.02	0.44	—	0.44	0.40	—	0.40	—	2,043	2,043	0.08	0.02	2,050
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	1.49	1.72	< 0.005	0.07	—	0.07	0.06	—	0.06	—	312	312	0.01	< 0.005	313
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.27	0.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	51.6	51.6	< 0.005	< 0.005	51.8
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	0.21	0.06	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	184	184	< 0.005	0.03	192
Hauling	0.01	0.67	0.16	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	575	575	0.01	0.09	602
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.0	28.0	< 0.005	< 0.005	29.3
Hauling	< 0.005	0.10	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	87.7	87.7	< 0.005	0.01	91.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.64	4.64	< 0.005	< 0.005	4.86
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.5	14.5	< 0.005	< 0.005	15.2

3.4. 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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	9.73	11.3	0.02	0.07	—	0.07	0.06	—	0.06	—	2,043	2,043	0.08	0.02	2,050

Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	1.49	1.72	< 0.005	0.01	—	0.01	0.01	—	0.01	—	312	312	0.01	< 0.005	313
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.27	0.31	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.6	51.6	< 0.005	< 0.005	51.8
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	0.21	0.06	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	184	184	< 0.005	0.03	192
Hauling	0.01	0.67	0.16	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	575	575	0.01	0.09	602

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.0	28.0	< 0.005	< 0.005	29.3
Hauling	< 0.005	0.10	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	87.7	87.7	< 0.005	0.01	91.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.64	4.64	< 0.005	< 0.005	4.86
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.5	14.5	< 0.005	< 0.005	15.2

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	9.73	11.3	0.02	0.44	—	0.44	0.40	—	0.40	—	2,045	2,045	0.08	0.02	2,052
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.51	0.60	< 0.005	0.02	—	0.02	0.02	—	0.02	—	108	108	< 0.005	< 0.005	108

Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.09	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.9	17.9	< 0.005	< 0.005	17.9
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	0.20	0.06	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	181	181	< 0.005	0.03	189
Hauling	0.01	0.65	0.15	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	565	565	0.01	0.09	592
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.55	9.55	< 0.005	< 0.005	10.0
Hauling	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.8	29.8	< 0.005	< 0.005	31.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.58	1.58	< 0.005	< 0.005	1.66
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.94	4.94	< 0.005	< 0.005	5.18

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	9.73	11.3	0.02	0.07	—	0.07	0.06	—	0.06	—	2,045	2,045	0.08	0.02	2,052
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.51	0.60	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	108	108	< 0.005	< 0.005	108
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.09	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.9	17.9	< 0.005	< 0.005	17.9
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	0.20	0.06	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	181	181	< 0.005	0.03	189
Hauling	0.01	0.65	0.15	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	565	565	0.01	0.09	592
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.55	9.55	< 0.005	< 0.005	10.0
Hauling	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.8	29.8	< 0.005	< 0.005	31.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.58	1.58	< 0.005	< 0.005	1.66
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.94	4.94	< 0.005	< 0.005	5.18

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.38	10.2	11.9	0.02	0.42	—	0.42	0.38	—	0.38	—	2,089	2,089	0.08	0.02	2,096
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	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	0.83	0.97	< 0.005	0.03	—	0.03	0.03	—	0.03	—	172	172	0.01	< 0.005	172
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.15	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.4	28.4	< 0.005	< 0.005	28.5
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.65	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	152	152	< 0.005	0.01	154
Vendor	0.01	0.40	0.12	< 0.005	0.01	0.10	0.11	0.01	0.03	0.03	—	361	361	0.01	0.06	378
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.7	12.7	< 0.005	< 0.005	12.8
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.7	29.7	< 0.005	< 0.005	31.1
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.10	2.10	< 0.005	< 0.005	2.13
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.92	4.92	< 0.005	< 0.005	5.15

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
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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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	10.2	11.9	0.02	0.06	—	0.06	0.06	—	0.06	—	2,089	2,089	0.08	0.02	2,096
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	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	0.83	0.97	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	172	172	0.01	< 0.005	172
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.15	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.4	28.4	< 0.005	< 0.005	28.5
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.05	0.05	0.65	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	152	152	< 0.005	0.01	154
Vendor	0.01	0.40	0.12	< 0.005	0.01	0.10	0.11	0.01	0.03	0.03	—	361	361	0.01	0.06	378
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.7	12.7	< 0.005	< 0.005	12.8
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.7	29.7	< 0.005	< 0.005	31.1
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.10	2.10	< 0.005	< 0.005	2.13
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.92	4.92	< 0.005	< 0.005	5.15
Hauling	0.00	0.00	0.00	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	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, Grading & Excavation	Linear, Grading & Excavation	8/1/2025	11/13/2025	5.00	75.0	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	10/15/2025	1/27/2026	5.00	75.0	—
Linear, Paving	Linear, Paving	1/28/2026	3/10/2026	5.00	30.0	—

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, Grading & Excavation	Off-Highway Trucks	Diesel	Tier 3	1.00	8.00	376	0.38
Linear, Grading & Excavation	Excavators	Diesel	Tier 3	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Concrete/Industrial Saws	Diesel	Tier 3	2.00	8.00	33.0	0.73
Linear, Grading & Excavation	Skid Steer Loaders	Diesel	Tier 3	1.00	8.00	71.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Skid Steer Loaders	Diesel	Tier 3	1.00	8.00	71.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Excavators	Diesel	Tier 3	1.00	8.00	36.0	0.38
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Back hoes	Diesel	Tier 3	1.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Tier 3	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Off-Highway Trucks	Diesel	Tier 3	1.00	8.00	376	0.38
Linear, Paving	Off-Highway Trucks	Diesel	Tier 3	1.00	8.00	376	0.38
Linear, Paving	Rollers	Diesel	Tier 3	1.00	8.00	36.0	0.38
Linear, Paving	Pavers	Diesel	Tier 3	1.00	8.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Tier 3	1.00	8.00	89.0	0.36

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grading & Excavation	Off-Highway Trucks	Diesel	Tier 3	1.00	8.00	376	0.38

Linear, Grading & Excavation	Excavators	Diesel	Tier 3	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Concrete/Industrial Saws	Diesel	Tier 3	2.00	8.00	33.0	0.73
Linear, Grading & Excavation	Skid Steer Loaders	Diesel	Tier 3	1.00	8.00	71.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Skid Steer Loaders	Diesel	Tier 3	1.00	8.00	71.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Excavators	Diesel	Tier 3	1.00	8.00	36.0	0.38
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Back hoes	Diesel	Tier 3	1.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Tier 3	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Off-Highway Trucks	Diesel	Tier 3	1.00	8.00	376	0.38
Linear, Paving	Off-Highway Trucks	Diesel	Tier 3	1.00	8.00	376	0.38
Linear, Paving	Rollers	Diesel	Tier 3	1.00	8.00	36.0	0.38
Linear, Paving	Pavers	Diesel	Tier 3	1.00	8.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Tier 3	1.00	8.00	89.0	0.36

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	6.00	18.5	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	0.00	10.2	HHDT,MHDT
Linear, Grading & Excavation	Hauling	21.7	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—

Linear, Drainage, Utilities, & Sub-Grade	Worker	0.00	18.5	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	6.00	10.2	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	8.33	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	12.0	18.5	LDA,LDT1,LDT2
Linear, Paving	Vendor	12.0	10.2	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
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	6.00	18.5	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	0.00	10.2	HHDT,MHDT
Linear, Grading & Excavation	Hauling	21.7	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	0.00	18.5	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	6.00	10.2	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	8.33	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT

Linear, Paving	—	—	—	—
Linear, Paving	Worker	12.0	18.5	LDA,LDT1,LDT2
Linear, Paving	Vendor	12.0	10.2	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

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%

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)
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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)
Linear, Grading & Excavation	0.00	13,000	4.50	0.00	—
Linear, Drainage, Utilities, & Sub-Grade	5,000	0.00	4.50	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Linear	6.00	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	0.00	532	0.03	< 0.005
2026	0.00	532	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
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5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	31.4	annual days of extreme heat
Extreme Precipitation	5.35	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	24.3	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 $\frac{3}{4}$ 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	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	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	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	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	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
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	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

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	98.7
AQ-PM	47.1
AQ-DPM	89.0
Drinking Water	23.6
Lead Risk Housing	90.0
Pesticides	23.7
Toxic Releases	35.0
Traffic	78.2
Effect Indicators	—
CleanUp Sites	50.3
Groundwater	0.00
Haz Waste Facilities/Generators	93.1
Impaired Water Bodies	12.5
Solid Waste	9.67
Sensitive Population	—
Asthma	69.0
Cardio-vascular	94.7
Low Birth Weights	93.6
Socioeconomic Factor Indicators	—

Education	67.8
Housing	12.3
Linguistic	49.1
Poverty	91.9
Unemployment	85.5

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	25.895034
Employed	9.264724753
Median HI	12.45989991
Education	—
Bachelor's or higher	12.06210702
High school enrollment	100
Preschool enrollment	55.65250866
Transportation	—
Auto Access	46.70858463
Active commuting	44.39881945
Social	—
2-parent households	9.5983575
Voting	7.108943924
Neighborhood	—
Alcohol availability	13.66611061
Park access	57.56448094
Retail density	60.43885538
Supermarket access	2.399589375

Tree canopy	6.723983062
Housing	—
Homeownership	20.32593353
Housing habitability	12.03644296
Low-inc homeowner severe housing cost burden	73.38637239
Low-inc renter severe housing cost burden	5.581932504
Uncrowded housing	20.37726165
Health Outcomes	—
Insured adults	7.404080585
Arthritis	0.0
Asthma ER Admissions	30.0
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	13.4
Cognitively Disabled	52.2
Physically Disabled	36.0
Heart Attack ER Admissions	1.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
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	0.0
SLR Inundation Area	0.0
Children	10.6
Elderly	75.9
English Speaking	46.2
Foreign-born	35.1
Outdoor Workers	13.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	70.9
Traffic Density	80.0
Traffic Access	23.0
Other Indices	—
Hardship	82.4
Other Decision Support	—
2016 Voting	23.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	85.0
Healthy Places Index Score for Project Location (b)	11.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
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
Construction: Construction Phases	Estimated Work Schedule
Construction: Off-Road Equipment	Construction Schedule
Construction: Trips and VMT	Increased trips to account for estimated workers and added additional vendors
Construction: Dust From Material Movement	Roughly 13,000 CY export to make way for pipes and 5,000 CY import of adequate subgrade to set pipes
Construction: Paving	6 acres assumed to be repaved