County of Madera
California Environmental Quality Act (CEQA)
Initial Study

1. Project title:	Prj #2024-003 – Derrel's Mini Storage Facility
2. Lead agency name and address:	County of Madera Community and Economic Development Department 200 West 4th Street, Suite 3100 Madera, California 93637
3. Contact person and phone number:	Annette Kephart, Senior Planner 559-675-7821 Annette.Kephart@maderacounty.com
4. Project Location & APN:	The subject property is located on the northeast corner of Avenue 12 and Road 39 1/2 (no situs) Madera. APN #: 049-022-017
5. Project sponsor's name and address:	Bill Robinson PO Box 27068 Fresno, CA 93729-7068
6. General Plan Designation:	Existing: AE (Agricultural Exclusive) Proposed: CC (Community Commercial)
7. Zoning:	Existing: ARE-40 (Agricultural, Rural, Exclusive, 40 Acre) Proposed: PDD (Planned Development District)

8. Description of project:

The Derrel's Mini Storage Project consists of the construction and development of a new mini storage facility with RV parking and an on-site manager's office/residence (Figure 1). The project is located at the northeast corner of Avenue 12 and Road 39 ½ on approximately 20.12 acres. The Assessor's Parcel Number (APN) associated with the project site is 049-022-017. The mini-storage buildings are proposed in phases as follows:
• Phase 1: 172,150 square feet
• Phase 2: 119,800 square feet
• Future Phase 3: 84,850 square feet

When Phases 1 and 2 are complete, the future area will be developed with 60,620 square feet of covered storage spaces for recreational vehicles (RV storage). Site access is proposed via a main driveway connecting to Road 39½ approximately 300 feet north of Avenue 12. The project will also include site landscaping, paving, driveways and water/sewer construction. The proposed building shall comply with Madera County Code Title 13 as it relates to onsite domestic water and sewage disposal. The proposed domestic water well shall be constructed to Public Water Well

Standards. Based on the operational statement, this facility will be classified as a public water system once it meets the states definition. An Engineered Design Onsite Wastewater Treatment System (OWTS) will be required for review and approval. A water system capable of meeting the minimum required California Fire Code Hydrant flow rate at the required duration will be required to supply the project site.

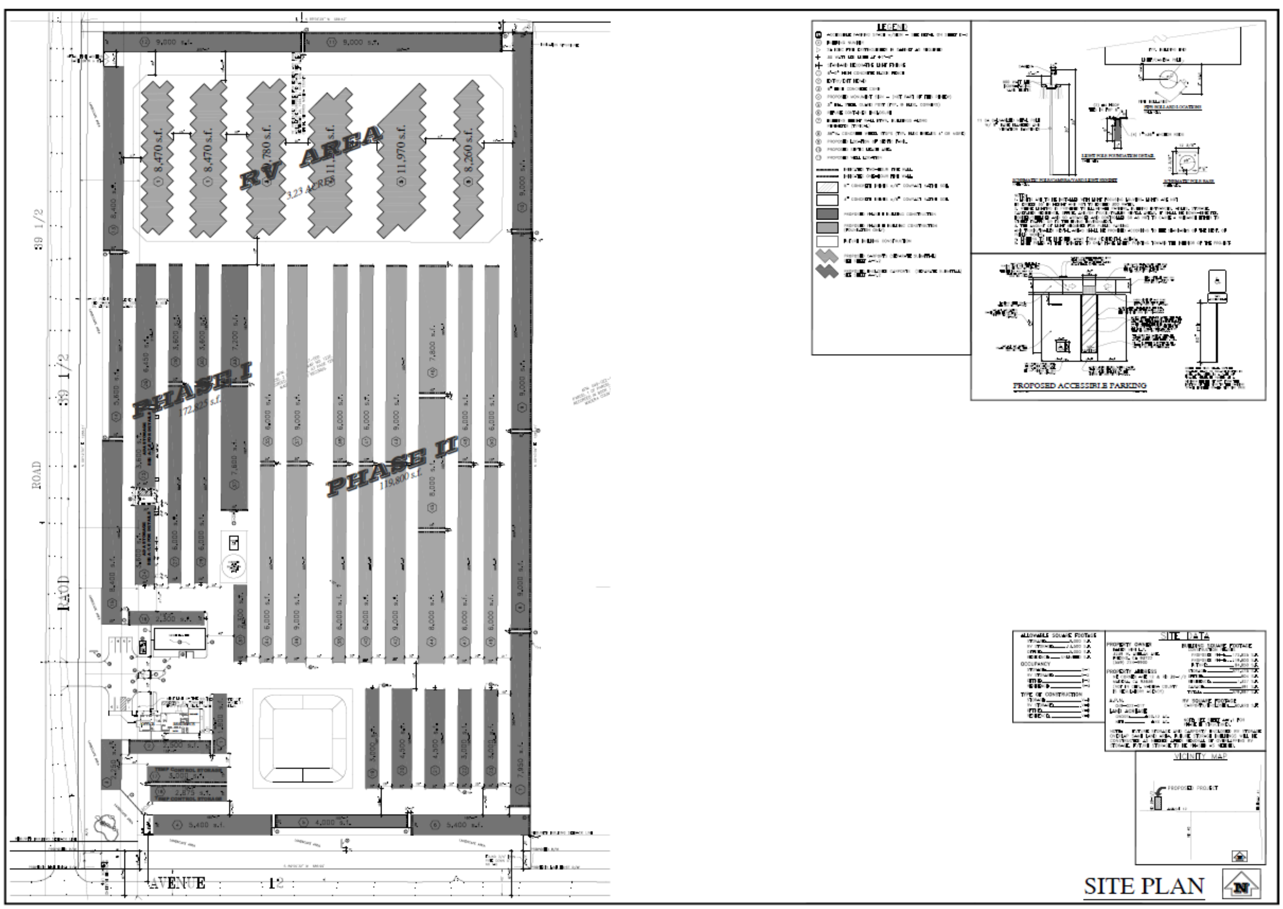
Building Square Footage
- Storage
  - Phase 1: 172,825 square feet
  - Phase 2: 119,800 square feet
  - Future: 84,850 square feet
- Office: 804 square feet
- Residence 1,327 square feet + garage totaling 391 square feet

RV Square Footage
- Carports/enclosed: 60,620 square feet

Land Acreage
- Approximately 20.12 gross acres

The project site as it currently exists is vacant with no existing structures and requires no removal of hardscape.

Figure 1 – Site Plan



9. Surrounding Land Uses and Setting:

The properties located to the north, east, south, and west of the project site are designated as AE (Agricultural Exclusive) and zoned as ARE-40 (Agricultural, Rural, Exclusive, 40 Acres) and ARE-20 (Agricultural, Rural, Exclusive, 20 Acres). There are single-family residences and orchards to the east and west of the site, while orchards are found to the north and south of the parcel.

10. Other Public Agencies Whose Approval is Required:

None.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Under the provisions of Assembly Bill (AB) 52, the County was required to provide notice of the preparation of this Initial Study to Native American tribes that had previously expressed interest in reviewing CEQA projects. Notices were sent on September 6, 2024, to the appropriate tribal government representatives. As of the preparation of this Initial Study, more than 30 days had passed since the County sent out the notification letters. One consultation request was received from Table Mountain Rancheria. However, despite numerous attempts by staff to coordinate a consultation, no response was received. Section XVIII of this Initial Study further discusses tribal cultural resources and outreach.

Under the provisions of Senate Bill (SB) 18, the County was also required to provide notice of the preparation of this Initial Study to Native American tribes identified by the Native American Heritage Commission (NAHC). This is intended to avoid, protect, and mitigate impacts to cultural places when creating or amending General Plans, Specific Plans, and Community Plans. Notices were sent on October 9, 2024, to the relevant tribal government representatives. As of the preparation of this Initial Study, more than 60 days had passed since the County sent out the notification letters. One comment was received requesting that a Cultural Specialist be present during earth moving. This has been made a condition of approval for the project.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agricultural/Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☐ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

DETERMINATION (to be completed by Lead Agency)	
On the basis of this initial evaluation:	
☐	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☒	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
☐	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signed: Annette Kephart Date: 12/04/2024

I. **AESTHETICS** Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

Responses:

(a) No Impact. The project site is not within the viewshed of any areas designated as or having the characteristics of scenic vistas; therefore, the project would not have the potential to affect a scenic vista adversely.

(b) No Impact. According to the California State Scenic Highway System Map, there are two eligible highways (State Route [SR] 49 and State Route [SR] 41) in the County (CalTrans, 2023). SR 49 and SR 41 are over twenty miles away from the project site and the project is not within the viewshed of SR 49 or SR 41; therefore, the project would not have the potential to affect scenic resources within a state scenic highway adversely.

(c) Less Than Significant Impact. The project site is mostly vacant and does not serve as a unique or significant visual resource. Developing an RV parking and mini-storage facility would alter the site; however, this change would not have a significant adverse impact on the existing visual character or the quality of public views of the site and its surroundings. The adjacent properties consist of agricultural land, including orchards and a few single-family residences. Therefore, the visual impact of the project is deemed to be less than significant.

(d) Less than Significant Impact with Mitigation. The project is in an area where residential development exists within ½ mile. The project would include lighting associated with the storage facility. With the implementation of AES MM-1, the potential lighting impacts of the project would be less than significant.

> ***(AES MM-1)*** *Lighting shall be hooded and directed down and away from neighboring parcels to minimize light disbursement and to avoid direct light spill to offsite areas.*

II. AGRICULTURAL AND FORESTRY RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
In determining whether agricultural impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

Responses:

(a) Less than significant Impact. The project site is designated as "Unique Farmland" by the

California Department of Conservation's Farmland Mapping and Monitoring Program. Currently, the area is experiencing a significant shortage of commercial real estate due to rapid population growth and urban expansion. The proposed use of the site would provide a much-needed service to the region. Additionally, the parcel is fallow and unused for agricultural purposes. In 2023, Madera County had 725,300 harvested acres of agricultural land, so the conversion of approximately 20 acres is not expected to have a significant impact.

The site is located within the Madera County Subbasin, which is experiencing critical over-extraction of groundwater resources. It also falls within the Madera Irrigation District's "Subordinate Lands," meaning these lands can receive surface water only after all other district demands have been satisfied, typically during wetter years. As a result, any agricultural activities on this site would rely on groundwater pumping. Therefore, the overall impact on agricultural resources is considered less than significant.

(b) Less Than Significant Impact. The project site is not subject to a Williamson Act contract. The site is currently not used for agricultural purposes and the parcel falls within the Madera Irrigation District's "Subordinate Lands," which means these lands can only receive surface water once all other district demands have been satisfied, usually during wetter years. As a result, any agricultural activities on this site would rely on groundwater pumping.

(c - d) No Impact. The project site does not contain forest land or forest resources and is not zoned for such uses.

(**e**) **Less Than Significant Impact**. The project plans to convert approximately 20 acres of farmland to non-agricultural uses. However, there is a significant shortage of commercial real estate due to rapid population growth and urban expansion. The proposed development would meet a crucial need in the region. Additionally, the land is currently fallow and not being utilized for agricultural purposes. Madera County had 725,300 harvested acres of agricultural land, so the conversion of approximately 20 acres is not expected to have a significant impact.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
III. AIR QUALITY Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with, or obstruct implementation of, the applicable air quality plan?	☐	☐	☒	☐
	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
b) 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?				
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

An "Air Quality and Greenhouse Gas Emissions Technical Analysis" (Johnson Johnson and Miller Air Quality Consulting Services 2024) was prepared for the project and is included in Appendix A of this Initial Study. Information and analysis from the technical analysis are incorporated in the responses below. (Appendix A)

Responses:

(a) Less Than Significant Impact. The CEQA Guidelines indicate that a significant impact would occur if the project would conflict with or obstruct implementation of the applicable air quality plan. The GAMAQI indicates that projects that do not exceed SJVAPCD regional criteria pollutant emissions quantitative thresholds would not conflict with or obstruct the applicable air quality plan (AQP). An additional criterion regarding the project's implementation of control measures was assessed to provide further evidence of the project's consistency with current AQPs. This document proposes the following criteria for determining project consistency with the current AQPs:

1. Will the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs? This measure is determined by comparison to the regional thresholds identified by the District for Regional Air Pollutants.
2. Will the project comply with applicable control measures in the AQPs? The primary control measures applicable to development projects include Regulation VIII—Fugitive PM10 Prohibitions and Rule 9510 Indirect Source Review.

Contribution to Air Quality Violations

A measure for determining if the project is consistent with the air quality plans is if the project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plans. Regional air quality impacts and attainment of standards are the result of the cumulative impacts of all emission sources within the air basin. Individual projects are generally not large enough to contribute measurably to an existing violation of air quality standards. Therefore, the cumulative impact of the project is based on its cumulative contribution. Because of the region's nonattainment status for ozone, PM2.5, and PM10—if project-generated emissions of either of the ozone precursor pollutants (ROG and NOX), PM10, or PM2.5 would exceed the SJVAPCD's significance thresholds—then the project would be considered to contribute to violations of the applicable standards and conflict with the attainment plans. As shown in Table 4 under Impact AIR-2 below, the project's construction regional emissions would not exceed SJVAPCD's regional criteria pollutant emissions quantitative thresholds. Similarly, emissions of ROG, NOX, CO, SOX, PM10 or PM2.5 during operations would not exceed any applicable threshold of significance in either buildout scenario analyzed (see Table 5). Therefore, regarding this criterion, the project would be considered less than significant.

<u>*Compliance with Applicable Control Measures*</u>

SJVAPCD's AQPs contain a number of control measures, which are enforceable requirements through the adoption of rules and regulations. A description of rules and regulations that apply to this project is provided below.

SJVAPCD Rule 9510—Indirect Source Review (ISR) is a control measure in the 2006 PM10 Plan that requires NOX and PM10 emission reductions from development projects in the San Joaquin Valley. The NOX emission reductions help reduce the secondary formation of PM10 in the atmosphere (primarily ammonium nitrate and ammonium sulfate) and also reduce the formation of ozone. Reductions in directly emitted PM10 reduce particles such as dust, soot, and aerosols. Rule 9510 is also a control measure in the 2016 Plan for the 2008 8-Hour Ozone Standard. Developers of projects subject to Rule 9510 must reduce emissions occurring during construction and operational phases through on-site measures or pay off-site mitigation fees. The proposed project would be subject to Rule 9510.

Regulation VIII—Fugitive PM10 **Prohibitions** is a control measure that is one main strategies from the 2006 PM10 for reducing the PM10 emissions that are part of fugitive dust. Residential projects over 10 acres and non-residential projects over 5 acres are required to file a Dust Control Plan (DCP) containing dust control practices sufficient to comply with Regulation VIII. The project will be required to comply with Regulation VIII and would implement dust control measures during the construction period. Other control measures that apply to the project are Rule 4641—Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operation that requires reductions in VOC emissions during paving and Rule 4601—Architectural Coatings that limits the VOC content of all types of paints and coatings sold in the San Joaquin Valley. These measures apply at the point of sale of the asphalt and the coatings, so project compliance is ensured without additional mitigation measures.

Rule 2201—New and Modified Stationary Source Review Rule requires the review of new and modified Stationary Sources of air pollution and to provide mechanisms including emission trade-offs by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of Ambient Air Quality Standards. It is common for components of a project to be required to obtain permits and abide by associated regulations set forth by Rule 2201; however, no components of the project as currently planned would require permitting. The project would comply with all applicable SJVAPCD rules and regulations. Therefore, the proposed project would not conflict with or obstruct implementation of the applicable air quality attainment plan under this criterion.

The project would comply with all applicable CARB and SJVAPCD rules and regulations.

Therefore, the project complies with this criterion and would not conflict with or obstruct implementation of the applicable air quality attainment plan with regards to this criterion. The project's regional operational emissions would not exceed any applicable SJVAPCD prior to the incorporation of mitigation measures (see Impact AIR-2). Therefore, the project would be considered consistent with the existing AQPs. Based on the findings above, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. The impact would be less than significant. No mitigation measures are necessary.

(b) Less Than Significant Impact. To result in a less than significant impact, the following criteria must be true:

1. Regional analysis: emissions of nonattainment pollutants must be below the SJVAPCD's regional significance thresholds. This is an approach recommended by the District in its GAMAQI.
2. Summary of projections: the project must be consistent with current air quality attainment plans including control measures and regulations. This is an approach consistent with Section 15130(b) of the CEQA Guidelines.
3. Cumulative health impacts: the project must result in less than significant cumulative health effects from the nonattainment pollutants. This approach correlates the significance of the regional analysis with health effects, consistent with the court decision, *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1219-20.

Regional Emissions

Air pollutant emissions have both regional and localized effects. This analysis assesses the regional effects of the project's criteria pollutant emissions in comparison to SJVAPCD thresholds of significance for short-term construction activities and long-term operation of the project. Localized emissions from project construction and operation are assessed under Impact AIR-3—Sensitive Receptors using concentration-based thresholds that determine if the project would result in a localized exceedance of any ambient air quality standards or would make a cumulatively considerable contribution to an existing exceedance.

The primary pollutants of concern during project construction and operation are ROG, NOX, PM10, and PM2.5. The SJVAPCD GAMAQI adopted in 2015 contains thresholds for CO, NOX, ROG, SOX, PM10, and PM2.5.

Ozone is a secondary pollutant that can be formed miles from the source of emissions, through reactions of ROG and NOX emissions in the presence of sunlight. Therefore, ROG and NOX are termed ozone precursors. The Air Basin often exceeds the state and national ozone standards. Therefore, if the project emits a substantial quantity of ozone precursors, the project may contribute to an exceedance of the ozone standard. The Air Basin also exceeds air quality standards for PM10, and PM2.5; therefore, substantial project emissions may contribute to an exceedance for these pollutants. The SJVAPCD's annual emission significance thresholds used for the project, define the substantial contribution for both operational and construction emissions as follows:

- 100 tons per year CO
- 10 tons per year NOX
- 10 tons per year ROG
- 27 tons per year SOX
- 15 tons per year PM10
- 15 tons per year PM2.5

The project does not contain sources that would produce substantial quantities of SO2 emissions during construction and operation. Modeling conducted for the project shows that SO2 emissions are well below the SJVAPCD GAMAQI thresholds, as shown in the modeling results contained in Attachment A. No further discussion of SO2 is required.

Construction Emissions

Construction activities associated with development of the proposed project would include site preparation, grading, building construction, paving, and architectural coatings. Emissions from construction-related activities are generally short-term in duration but may still cause adverse air quality impacts. During construction, fugitive dust would be generated from earth-moving activities. Exhaust emissions would also be generated from off-road construction equipment and construction-related vehicle trips. Emissions associated with construction of the proposed project are discussed below.

Table 4 provides the construction emissions estimate for the proposed project. Please refer to the Modeling Parameters and Assumptions section of this technical memorandum for details regarding assumptions used to estimate construction emissions. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required pursuant to CEQA guidelines.

Table 4: Construction Regional Air Pollutant Annual Emissions (Unmitigated)

Construction Year	**Air Pollutants (ton/year)**				
	ROG	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Phases 1 & 2 + RV Storage (2025)	0.18	1.37	1.71	0.25	0.12
Phases 1 & 2 + RV Storage (2026)	0.23	1.63	2.64	0.30	0.11
Phases 1 & 2 + RV Storage (2027)	0.79	0.14	0.23	0.03	0.01
Phase 3 & RV Removal (2027)	0.13	1.05	1.31	0.13	0.05
Phase 3 & RV Removal (2028)	0.20	0.06	0.09	0.01	0.00
Total Project Construction Emissions (tons over the entire construction duration)	**1.53**	**4.25**	**5.98**	**0.72**	**0.29**
Significance Threshold (tons/year)	**10**	**10**	**100**	**15**	**15**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**	**No**

Notes:
PM_{10} and $PM_{2.5}$ emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM_{10} Prohibitions.
NO_X = oxides of nitrogen
PM_{10} = particulate matter 10 microns in diameter
$PM_{2.5}$ = particulate matter 2.5 microns in diameter
ROG = reactive organic gases
Source: CalEEMod Output (Attachment A).

As shown in Table 4, estimated emissions from construction of project are below the SJVAPCD significance thresholds. Therefore, the regional construction emissions would be less than significant on a project basis.

Operational Emissions

As previously discussed, the pollutants of concern include ROG, NO_X, CO, PM_{10}, and $PM_{2.5}$. Emissions were assessed for full buildout operations in the 2027 operational year for the following two scenarios: Phases 1 and 2 with RV storage and Phases 1 through 3. The 2027 operational year was chosen as it would be the earliest year the project is anticipated to become operational. Emissions were estimated for full project buildout in the earliest operational year, thus generating the full amount of expected operational activity. The SJVAPCD Criteria Air Pollutant Significance thresholds were used to determine impacts. Operational annual emissions are shown in Table 5 below.

Table 5: Operational Annual Emissions for Full Buildout (Unmitigated)

Emissions Source	Tons per Year				
	ROG	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Phases 1 & 2 + RV Storage Developed					
Area	1.47	0.01	1.39	0.00	0.00
Energy Consumption	0.00	0.08	0.07	0.01	0.01
Mobile (On-road Vehicles)	0.38	0.58	3.32	0.86	0.22
Total Annual Emissions	**1.85**	**0.67**	**4.78**	**0.87**	**0.23**
Phases 1 – 3 Developed					
Area	1.83	0.01	1.49	0.00	0.00
Energy Consumption	0.01	0.10	0.08	0.01	0.01
Mobile (On-road Vehicles)	0.47	0.72	4.13	1.07	0.28
Total Annual Emissions	**2.31**	**0.83**	**5.70**	**1.08**	**0.29**
Highest Annual Emissions from Either Scenario					
Project Annual Emissions	**2.31**	**0.83**	**5.70**	**1.08**	**0.29**
Thresholds of Significance	**10**	**10**	**100**	**15**	**15**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**	**No**
Notes: NO_X = oxides of nitrogen $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter PM_{10} = particulate matter 10 microns or less in diameter ROG = reactive organic gases Source: CalEEMod Output (Attachment A).					

As shown in Table 5, operational emissions would not exceed the applicable SJVAPCD thresholds of significance for ROG, NOX, CO, SOX, PM10, or PM2.5. Therefore, the impact from the operations of the project would be less than significant. No mitigation measures are necessary.

(c) Less Than Significant Impact. Emissions occurring at or near the project have the potential to create a localized impact that could expose sensitive receptors to substantial pollutant concentrations. Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution than others due to their exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. The SJVAPCD considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools.

The closest existing sensitive receptors (to the site area) are 2 single-family homes. One is located 143 feet west of the southwest corner of the project site and one located 243 feet east of the southeast corner of the project site. The Project site is otherwise surrounded by farmland with no other sensitive receptors within ¼ mile.

The nearest school is Webster Elementary School located 3.11 miles northwest of the project in the Madera Ranchos rural community. The nearest daycare facility is Nancy Fuller Children's University located 3.37 miles west of the project site, also in the Madera Ranchos. The nearest hospital is Valley Children's Hospital located 3 miles southeast of the project site. There are no other healthcare facilities near the project. The closest senior assisted living facility to the project site is Ranchos Hills Seniors 2.21 miles west of the project site. A description of the land uses surrounding the project site is provided below.

- North - North of the project is developed farmland for 1¾ miles followed by undeveloped open land and a small residential subdivision 2.28 miles to the northeast.
- East – There is one residence 243 feet east of the southeast corner of the project followed by developed farmland with Highway 41 running north and south 1.88 miles to the east.
- South – South of the project is primarily developed farmland with a few scattered residences directly south and southwest. Rolling Hills subdivision is approximately 1½ miles southeast along the west side of Highway 41. Less than ½ mile to the southeast are future Riverstone residential subdivision lots and existing Riverstone homes starting at just under a mile. Avenue 12 runs east and west along the south end of the project and is the main route between Highway 99 to the west and Highway 41 to the east.
- West – West of the project is the nearest residence and Brockman Farming, located
  approximately 143 feet west of the southwest corner of the project. The rest of the area west of the project is primarily developed farmland, with the Madera Ranchos starting approximately 1½ miles directly west of the project site.

Localized Impacts

Emissions occurring at or near the project have the potential to create a localized impact also referred to as an air pollutant hotspot. Localized emissions are considered significant if when combined with background emissions, they would result in exceedance of any health-based air quality standard. In locations that already exceed standards for these pollutants, significance is based on a significant impact level (SIL) that represents the amount that is considered a cumulatively considerable contribution to an existing violation of an air quality standard. The pollutants of concern for localized impact in the SJVAB are NO2, SOX, and CO.

The SJVAPCD has provided guidance for screening localized impacts in the GAMAQI that establishes a screening threshold of 100 pounds per day of any criteria pollutant. If a project exceeds 100 pounds per day of any criteria pollutant, then ambient air quality modeling would be necessary. If the project does not exceed 100 pounds per day of any criteria pollutant, then it can be assumed that it would not cause a violation of an ambient air quality standard.

Construction: Localized Concentrations of PM10, PM2.5, CO, and NOX

Local construction impacts would be short-term in nature lasting only during the duration of construction. As shown in Table 6 below, on-site construction emissions would be less than 100 pounds per day for each of the criteria pollutants. To present a conservative estimate, on-site emissions for on-road construction vehicles were included in the localized analysis. Based on the SJVAPCD's guidance, the construction emissions would not cause an ambient air quality standard violation.

Table 6: Localized Concentrations of PM10, PM2.5, CO, and NOX for Construction

Daily Maximum	**On-site Emissions (pounds per day)**				
	ROG	**NOX**	**CO**	**PM10**	**PM2.5**
Phases 1 & 2 + RV Storage (2025)	3.39	31.78	30.45	9.04	5.20
Phases 1 & 2 + RV Storage (2026)	1.73	10.73	15.61	0.46	0.37
Phases 1 & 2 + RV Storage (2027)	77.04	10.25	15.42	0.41	0.33
Phase 3 & RV Removal (2027)	1.43	13.42	15.25	4.76	1.83
Phase 3 & RV Removal (2028)	39.47	8.09	10.43	0.25	0.22
Entire Project Construction Duration (2025-2028)					
Maximum Daily On-site Emissions	**77.04**	**31.78**	**30.45**	**9.04**	**5.20**
Significance Thresholds	**—**	**100**	**100**	**100**	**100**
Exceed Significance Thresholds?	**—**	**No**	**No**	**No**	**No**

Note: Overlap of construction activities is based on the construction schedule shown in Table 1 and Attachment A. Source of Emissions: CalEEMod Output and Additional Supporting Information (Attachment A). Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. March 19. Website: https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf. Accessed March 4, 2024.

Operation: Localized Concentrations of PM10, PM2.5, CO, and NOX

Localized impacts could occur in areas with a single large source of emissions—such as a power plant—or at locations with multiple sources concentrated in a small area, such as a distribution center. As a mini storage facility, the proposed project would attract vehicle trips (both light-duty truck and passenger vehicles) and would emit air pollutants that have the potential to create a localized impact. The maximum daily operational emissions would occur at project buildout, which was assumed to occur in 2027 for the purposes of providing a conservative estimate of emissions. Operational emissions include those generated on-site by area sources such as consumer products, and landscape maintenance, energy use from natural gas combustion, and motor vehicles operation at the project site. To assess localized air impacts, motor vehicle emissions were estimated for on-site and localized operations using an adjusted trip length of 0.5 mile.

Table 7 below summarizes the results from the operational modeling of on-site emissions for the Project.

Table 7: Localized Concentrations of PM10, PM2.5, CO, and NOX for Operations (Phases 1 & 2 + RV Storage Developed)

Source	**On-site Emissions (pounds per day)**				
	ROG	**NOX**	**CO**	**PM10**	**PM2.5**
Area	9.32	0.14	15.46	0.03	0.02
Energy Consumption	0.02	0.44	0.36	0.03	0.03
Mobile (On-road Vehicles)	1.67	0.56	3.40	0.16	0.04
Daily Total	**11.01**	**1.14**	**19.22**	**0.22**	**0.09**
Significance Thresholds	**—**	**100**	**100**	**100**	**100**
Exceed Significance Thresholds?	**—**	**No**	**No**	**No**	**No**

Source of Emissions: CalEEMod Output (Attachment A). Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. March 19. Website: https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf. Accessed March 4, 2024.

Table 8: Localized Concentrations of PM10, PM2.5, CO, and NOX for Operations (Phases 1 -3 Developed)

Source	**On-site Emissions (pounds per day)**				
	ROG	**NOX**	**CO**	**PM10**	**PM2.5**
Area	11.40	0.15	16.51	0.03	0.02
Energy Consumption	0.03	0.56	0.47	0.04	0.04
Mobile (On-road Vehicles)	2.07	0.69	4.22	0.20	0.06
Daily Total	**13.50**	**1.40**	**21.20**	**0.27**	**0.12**
Significance Thresholds	—	**100**	**100**	**100**	**100**
Exceed Significance Thresholds?	—	**No**	**No**	**No**	**No**
Source of Emissions: CalEEMod Output (Attachment A). Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. March 19. Website: https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf. Accessed March 4, 2024.					

As shown in Table 7 and Table 8 above, the proposed project would not exceed operational screening thresholds for any pollutant in either buildout scenario. Therefore, based on the SJVAPCD's guidance, the operational emissions would not cause an ambient air quality standard violation for NOX, CO, PM10, or PM2.5. As such, impacts from localized emissions from operations of the project would be less than significant.

Toxic Air Contaminants

Construction

Project construction would involve the use of diesel-fueled vehicles and equipment that emit DPM, which is considered a TAC. The SJVAPCD's current threshold of significance for TAC emissions is an increase in cancer risk for the maximally exposed individual of 20 in a million (formerly 10 in a million).

A project-level assessment was conducted of the potential community health risk and health hazard impacts on surrounding sensitive receptors resulting from the emissions of TACs during construction. A summary of the assessment is provided below, while the detailed assessment is provided in Attachment B.

Construction activity using diesel-powered equipment emits DPM, a known carcinogen. Diesel particulate matter includes exhaust PM10 and exhaust PM2.5. A 10-year research program demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk.[8] Health risks from TACs are a function of both concentration and duration of exposure. Construction diesel emissions are temporary, affecting an area for a period of weeks or months. Additionally, construction-related sources are mobile and transient in nature.

The health risk assessment evaluated DPM (represented as exhaust PM10) emissions generated during the construction of the proposed project and the related health risk impacts for sensitive receptors located within approximately 1,000 feet of the project boundary.

The project site is located within 1,000 feet of existing sensitive receptors that could be exposed to diesel emission exhaust during the construction period. To estimate the potential cancer risk associated with construction of the proposed project from equipment exhaust (including DPM), a dispersion model was used to translate an emission rate from the source location to concentrations at the receptor locations of interest (i.e., receptors at nearby residences). A maximally exposed receptor (MER) was determined for construction and through the use of the dispersion modeling. A graphical representation of the inputs used in the dispersion modeling, including the locations of modeled receptor locations, is included as part of Attachment B.

Table 9 presents a summary of the proposed project's construction cancer risk and chronic non-cancer hazard impacts at the MER from project construction prior to the application of any equipment mitigation.

Table 9: Health Risks from Unmitigated Project Construction

Scenario	**Health Impact Metric**	**Carcinogenic Inhalation Health Risk in One Million**	**Chronic Inhalation Hazard Index**
Risks and Hazards from Project Construction to the Off-site MER1			
Unmitigated Project Construction	Risks and Hazards at the MER	9.50	0.005
Applicable Threshold of Significance		**20**	**1**
Exceeds Individual Source Threshold?		No	No

Notes:
MER = Maximally Exposed Receptor
[1] The MER was determined to be an existing residence located approximately 243 feet east of the southeast corner of the project site at 36°55'25.0"N 119°49'38.2"W (Receptor # 448).
Source: Attachment B.

As shown in Table 9, estimated health risks from elevated DPM concentrations during construction of the proposed project would not exceed the applicable health risk significance thresholds in any scenario analyzed. Therefore, the proposed project would not result in a significant impact on nearby sensitive receptors from TACs during the construction period.

Operations

Unlike warehouses or distribution centers, the daily vehicle trips generated by the proposed mini-storage project would be primarily generated by passenger vehicles. As described in the traffic study prepared for the proposed project, Derrel's Mini Storage project is expected to generate 438 average daily trips under the "Phases 1 and 2 Developed" scenario and 548 average daily trips under the "Phases 1 through 3 Developed" scenario.[9] Passenger vehicles typically use gasoline engines rather than the diesel engines that are found in heavy-duty trucks. Gasoline-powered vehicles do emit TACs in the form of toxic organic gases, some of which are carcinogenic. Compared to the combustion of diesel, the combustion of gasoline had relatively low emissions of TACs. Thus, mini-storage projects typically produce limited amounts of TAC emissions during operation. Nonetheless, it is anticipated that there would be some heavy-duty trucks visiting the project site during operations. Consistent with SJVAPCD guidance, an operational prioritization screening analysis was completed for the proposed project.

Operational DPM emissions from diesel trucks were estimated using EMFAC2021 emission factors and estimated truck travel and idling at the project site. The emissions were entered into the SJVAPCD Prioritization Screening Tool to determine the risk scores, with complete calculations and assumptions included as part of Attachment B. The results of the screening analysis are provided in Table 10.

Table 10: Prioritization Tool Health Risk Screening Results

Impact Source	Cancer Risk Score	Chronic Risk Score	Acute Risk Score
Phases 1 & 2 + RV Storage Developed			
Risk from Project Operations (Diesel Trucks)	1.649	0.006	0.000
Phases 1 – 3 Developed			
Risk from Project Operations (Diesel Trucks)	1.993	0.006	0.000
Highest Annual Emissions from Either Scenario			
Risk from Project Operations	**1.993**	**0.006**	**0.000**
Screening Risk Score Threshold	**10**	**1**	**1**
Screening Thresholds Exceeded?	**No**	**No**	**No**

Source: Construction Health Risk Assessment and Operational Health Risk Screening (Attachment B)

As shown in Table 10, the project would not exceed the cancer risk or chronic hazard screening threshold levels during project operations. The primary source of the emissions responsible for chronic risk are from diesel trucks. DPM does not have an acute risk factor. Since the project does not exceed the applicable SJVAPCD screening thresholds for cancer risk, acute risk, or chronic risk, this impact would be less than significant.

Valley Fever

Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis* (*C. immitis*). The spores live in soil and can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities.

The San Joaquin Valley is considered an endemic area for Valley fever. During 2000–2018, a total of 65,438 coccidioidomycosis cases were reported in California; median statewide annual incidence was 7.9 per 100,000 population and varied by region from 1.1 in Northern and Eastern California to 90.6 in the Southern San Joaquin Valley, with the largest increase (15-fold) occurring in the Northern San Joaquin Valley. Incidence has been consistently high in six counties in the Southern San Joaquin Valley (Fresno, Kern, Kings, Madera, Tulare, and Merced counties) and Central Coast (San Luis Obispo County) regions. California experienced 7,393 new probable or confirmed cases of Valley fever onset in 2022. A total of 56 onset Valley fever cases were reported in Madera County in 2022 and 66 in 2023.

The distribution of *C. immitis* within endemic areas is not uniform and growth sites are commonly small (a few tens of meters) and widely scattered. Known sites appear to have some ecological factors in common suggesting that certain physical, chemical, and biological conditions are more favorable for *C. immitis* growth. Avoidance, when possible, of sites favorable for the occurrence of *C. immitis* is a prudent risk management strategy. Listed below are ecologic factors and sites favorable for the occurrence of *C. immitis*:

- Rodent burrows (often a favorable site for *C. immitis*, perhaps because temperatures are more moderate and humidity higher than on the ground surface)
- Old (prehistoric) Indian campsites near fire pits
- Areas with sparse vegetation and alkaline soils
- Areas with high salinity soils
- Areas adjacent to arroyos (where residual moisture may be available)
- Packrat middens
- Upper 30 centimeters of the soil horizon, especially in virgin undisturbed soils
- Sandy, well-aerated soil with relatively high water-holding capacities

Sites within endemic areas less favorable for the occurrence of *C. immitis* include:

1) Cultivated fields
2) Heavily vegetated areas (e.g., grassy lawns)
3) Higher elevations (above 7,000 feet)
4) Areas where commercial fertilizers (e.g., ammonium sulfate) have been applied

5) Areas that are continually wet
6) Paved (asphalt or concrete) or oiled areas
7) Soils containing abundant microorganisms
8) Heavily urbanized areas where there is little undisturbed virgin soil.

The project is situated on a site previously disturbed that does not provide a suitable habitat for spores. Specifically, the project site has been previously disturbed and is sparsely covered with shrubbery. Therefore, development of the proposed project would have a lower probability of the site having *C. immitis* growth sites than if the site had been previously undisturbed.

Although conditions are not favorable, construction activities could generate fugitive dust that contain *C. immitis* spores. The project will minimize the generation of fugitive dust during construction activities by complying with SJVAPCD's Regulation VIII. Therefore, this regulation, combined with the relatively low probability of the presence of *C. immitis* spores would reduce Valley fever impacts to less than significant.

During operations, dust emissions are anticipated to be relatively small because most of the project area where operational activities would occur would be occupied by the proposed buildings, landscaping, and pavement associated with the proposed Derrel's Mini Storage development; it is anticipated that all internal travel areas would be paved. This condition would lessen the possibility of the project from providing habitat suitable for *C. immitis* spores and for generating fugitive dust that may contribute to Valley fever exposure. Impacts would be less than significant.

Naturally Occurring Asbestos

Review of the map of areas where naturally occurring asbestos in California are likely to occur found no such areas in the immediate project area. Therefore, development of the project is not anticipated to expose receptors to naturally occurring asbestos. Impacts would be less than significant.

Impact Analysis Summary

In summary, the project would not result in a significant impact from localized criteria pollutants. The project is not a significant source of TAC emissions during either construction or operations. The project is not in an area with suitable habitat for Valley fever spores and is not in an area known to have naturally occurring asbestos.

(d) Less Than Significant Impact. Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. According to the *CBIA v. BAAQMD* ruling, impacts of existing sources of odors on the project are not subject to CEQA review. Therefore, the analysis to determine if the project would locate new sensitive receptors near an existing source of odor is not used to determine significance for this impact.

Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc. warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

Although the project site is within approximately 150 feet from the nearest sensitive receptor, the project is not expected to be a significant source of odors. The screening levels for these land use types are shown in Table 11.

Table 11: Screening Levels for Potential Odor Sources

Odor Generator	Screening Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile
Wastewater Treatment Facilities	2 miles
Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. March 19. Website: https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf. Accessed March 4, 2024.	

Project Construction and Project Operation

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. Although offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies. Project operations would not be anticipated to produce odorous emissions, as the project would not be considered an odor generator based on the land uses shown in Table 11. construction activities associated with the proposed project could result in short-term odorous emissions from diesel exhaust associated with construction equipment. However, these emissions would be intermittent and would dissipate rapidly from the source. In addition, this diesel-powered equipment would only be present onsite temporarily during construction activities. The temporary and intermittent nature of construction activities would decrease the likelihood of the odors concentrating in a single area or lingering for any notable period of time. As such, these odors would likely not be noticeable for extended periods of time beyond the project's site boundaries. Therefore, construction would not create objectionable odors affecting a substantial number of people from use of diesel-powered equipment. As there would not be conditions under which the project would have the potential to expose a substantial number of people to odors emitted from construction or operations of the project, and the impact would be less than significant. No mitigation measures are necessary.

IV. BIOLOGICAL RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of a native wildlife nursery site?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

A "Biological Resources Assessment (BRA) was prepared for the project site by Argonaut Ecological Consulting, Inc on November 14, 2023 and is included in Appendix B of this Initial Study. Information and analysis from the BRA is incorporated in the responses below.

Responses:

(a) Less Than Significant Impact with Mitigation. The Study Area (See Figure 2) was walked on October 6, 2023, and all habitat features were mapped. There are several California habitat classification systems. Most classification systems describe natural communities without established developed or agricultural habitat classifications. CALVEG is a USDA Forest Service product providing a comprehensive spatial dataset of existing vegetation covering California. The data were created using a combination of automated systematic procedures, remote sensing classification, photo editing, and field-based observations. Analyses are based "on a crosswalk (combination) of the CALVEG classifications to the California Wildlife Habitat Relationships (CWHR)."

Calveg lists the site as an "Agricultural/Non-native/Ruderal" habitat. Attachment "A" provides photographs of the Study Area.

Bird species observed include mourning dove, starling, and crow. No mammals or ground burrowing mammals were present. No mature nesting trees or other nesting habitats are present within the Study Area.

A query of the California Natural Diversity Database (CNDDB) (Attachment B) and the USFWS IPaC was performed to determine which special status species could be present within the Study Area. No critical habitat exists for any species within or near the Study Area. The CNDDB Bios mapping is shown in Figure 5. This map shows the location of known records of special status species near the Study Area, and Table 1 includes a summary of the CNDDB query results. No designated Critical Habitat exists for any listed species within or near the Study Area.

Birds

The CNDDB and the IPaC include several bird species that have the potential to be present within or near the Study Area, including migratory birds. There are no mature trees to support nesting by raptors. Swainson's hawk (*Buteo swainsoni)* is a large raptor, a State threatened species that nests in mature trees and forages within agricultural areas. Burrowing owl **(***Athenea cunicularia)* is a small ground-nesting owl (California species of special concern) that depends on ground-burrowing mammals for underground burrows for nesting. No ground burrowing mammals or evidence of burrows were found within the Study Area. Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is Federally threatened and a State endangered species. This bird nests in riparian zones in willow thickets. No suitable habitat is present within or near the Study Area for this species. California horned lark is a species of concern but has no listing status. This horned lark nests on the ground.

Invertebrates

Numerous invertebrate species are included in the CNDDB. The majority of the species are associated with wetland or vernal pool habitats. No suitable habitat is present for any invertebrate species.

Plants

The CNDDB includes six special status species listed within the region. All but one of the species is associated with wetland or vernal pool species. No suitable habitat exists for any special-status plant species within or near the Study
Area.

Table 1
Summary of Special Status Species, Potential Occurrence, and Impact

Common Name	***Scientific Name***	***Status1***	***Effects2***	***Occurrence in the Study Area3***
Mammals				
American badger	*Taxidea taxus*	--/--	NE	**Absent. n** Occurs in open areas with a suitable prey base (small rodents and mammals). Burrows underground. No evidence of occupation within the Study Area and no suitable prey base was observed.
San Joaquin pocket mouse	*Perogrnaqthus inornatus*	--/--	NE	**Absent.** Occurs in grassland, arid scrubland, within fine-textured sandy, friable soil.
Birds				
Western yellow-billed cuckoo	*Coccyzus americanus occidental*	FT/ CE	NE	**Absent.** Associated with riparian corridors near streams and other water bodies. No suitable habitat is present.
Burrowing owl	*Athenea cunicularia*	--/-- SSC	NE	**Absent.** Associated with a ground burrowing population (such as ground squirrels) that provide burrows. Found in open grassland with suitable prey base. No ground-burrowing animals within the Study Area. The potential for presence is very low without access to ground burrows.
Swainson's hawk	*Buteo swainsoni*	-- /CT	NE	**Absent.** Nests in mature trees. There are no suitable nest trees within the Study Area. Hawk could occasionally forage within the area.
California horned lark	*Eremophilia alpestis actia*	--/--	ME	**Potentially present.** Horned Larks favor bare, dry ground and areas of short, sparse vegetation; they avoid places where grasses grow more than a couple of inches high. Horned lark also frequent areas cleared by humans, such as cultivated fields. Suitable habitat present. They nest on the ground in shallow depressions in early spring. Breeding and fledging occur within roughly 30 days.

Amphibians, Reptiles, and Invertebrates				
California tiger salamander	*Ambystoma californiense pop 1*	FT/ CT	N E	**Absent.** Breeds in seasonal wetlands and vernal pools or stock ponds without a predator population of bullfrogs. No suitable breeding habitat is present, and no breeding habitat within 1.3 miles of the Study Area, thus indicating the site is not used for upland aestivation**.**
Western spadefoot	*Spea hammondii*	--/--	N E	**Absent.** Requires seasonal wetlands for breeding and no suitable habitat on or near the Study Area.
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT/--	NE	**Absent**. No suitable habitat onsite since there are no seasonal wetlands or ponds within the Study Area.
Midvalley fairy shrimp	*Branchinecta mesovallensis*	--/--		**Absent**. No suitable habitat onsite since there are no seasonal wetlands or ponds within the Study Area.
Valley elderberry longhorn beetle	*Cesmocerus californicus dimorphus*	FT/CE		**Absent**. The host plant (elderberry shrubs) is not within or adjacent to the Study Area.
California linderiella	*Linderiella occidentalis*	--/--	NE	**Absent**. No suitable habitat onsite since there are no seasonal wetlands or ponds within the Study Area.
Molestan blister beetle	*Lytta molesta*	--/--	NE	**Absent.** Occurs in wetlands and vernal pools—no specific occurrence. No suitable habitat is present within the Study Area.
Plants				
Hoover's calycadenia	*Calycadenia hooveri*	--/--	NE	**Absent.** It is found in rocky areas in the hills along from Amador County to Madera County. Only one record in the vicinity – along the slopes of Table Mountain, east of the Study Area.
Succulent owl's-clover	*Castilleja campestris var. succulenta*	FT/C E	NE	**Absent.** Occurs in vernal pools/seasonal wetlands. No suitable habitat present within the impact area
Pincushion navarretia	*Naverrtia myersii ssp. myersii*	--/--	NE	**Absent.** Occurs in vernal pools/seasonal wetlands. No suitable habitat present within the impact area

Hairy Orcutt grass	*Orcuttia Pilosa*	FE/CE	NE	Absent. Occurs in vernal pools. No suitable habitat present within the Study Area. One record from 1979 east of Hwy 12/Road 38, but the vernal pool has been destroyed and land put in production.
San Joaquin Valley Orcutt grass	*Orcuttia inaequalis*	FT/CT	NE	**Absent.** Occurs in vernal pools/seasonal wetlands. No suitable habitat present within the impact area
Spiny-sepaled button- celery	*Eryngium spinosepalum*	--/--	NE	**Absent.** Occurs in seasonal wetlands. Suitable habitat is not present**.**

1 Status= Listing of special status species, unless otherwise indicated
CE: California listed as Endangered
CT: California listed as Threatened
CC: California candidate species
SSC: California Species of Special Concern
FE: Federally listed as Endangered
FT: Federally listed as Threatened

2 Effects = Effect determination
NE: No Effect
ME: May Effect, not likely to adversely affect
Source: CNDDB = California Natural Diversity Database provided by CDFG and U.S. Fish and Wildlife Service, Information for Planning and Consultation (IPaC). Accessed online between June 18, 2023.

3 Definition of Occurrence Indicators: Present/Potentially: Species recorded in the area and some habitat elements in the Study Area similar to known occurrences. Absent/Likely Absent: Species not recorded in Study Area and suitable or critical habitat components are absent.

> ***BIO MM-1.*** *A pre-construction survey for California horned lark is required if ground disturbance associated with development is initiated during the nesting season (Feb 1 – Aug 31).*

(b- d) No Impact. According to the National Wetland Inventory (NWI) Map (Figure 4), there are no mapped Waters (streams, drainages, wetlands) within the Study Area. The entire Study Area was walked to look for any evidence of potential wetlands/waters habitat, wetlands Waters, or any other aquatic habitat (either perennial or seasonal), and none are present.

(e-f) No Impact. Implementation of the project would not require the removal of native trees. Project landscaping would include tree plantings within the landscaped areas of the site. There are no Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs) appliable to the project site, and the project would not have the potential conflict with the provisions of an adopted HCP, NCCP, or other approved governmental habitat conservation plan.

V. CULTURAL RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

A “Cultural Resources Inventory – Downtown Ranchos Commercial Development” (CRI) was prepared for the project (Taggart, 2023). Certain information in the CRI may be confidential; therefore, the report is not included as an appendix accompanying this Initial Study. Information and analysis from the CRI is incorporated in the responses below.

Responses:

(a-c) Less Than Significant Impact with Mitigation. A Cultural Resource Assessment for the project was completed by Peak & Associates, Inc. A record search was conducted for the project site area, with a 0.25-mile radius, through the Southern San Joaquin Valley Archaeological Information Center of the California Historical Resources Information System on October 9, 2023 (RS#23-411, Appendix 2).

There are no resources reported in the project site area or within a 0.25-mile radius. The project site has never been surveyed. No other surveys have been conducted in the project site vicinity.

Michael Lawson with Peak & Associates conducted a field survey of the project site on November 2, 2023, using complete inspection techniques where possible. For most of parcel 20 meter wide transects were used, but narrower, overlapping paths were used on and within 50’ of where a previous higher elevation is depicted on an earlier map.

The soil of the site is a uniform tan dry sandy loam, with a very light pebble fraction and no observed cobbles or outcrops. Pebbles noted are rounded quartzite.

Due to recent tilling, very little vegetation remains. Some imported grasses and plants grow around the edge of the parcel. As a result, visibility of the ground surface in the project site is excellent.

An 8’ wide by 10’ long concrete pad is present in the northeast portion of the survey area, flush with the ground surface, partly covered by weeds and soil. No temporal indicators were observed, resulting in unknown date of construction. It appears to be recent, 1970s or later. No prehistoric resources were observed during the survey.

Although no prehistoric sites were found during the survey, there is a slight possibility that a site may exist and be totally obscured by vegetation, fill, or other historic activities, leaving no surface evidence. Should artifacts or unusual amounts of stone, bone, or shell be uncovered during construction activities, an archeologist should be consulted for on-the-spot evaluation of the finding.

CUL MM-1. In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area suspected to overlie adjacent remains until the Madera County Coroner has determined that the remains are not subject to any provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

If the Madera County Coroner determines that the remains are not subject to his or her authority and if the County Coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact, by telephone, the Native American Heritage Commission (NAHC).

After notification, the NAHC will follow the procedures outlined in Public Resources Code Section 5097.98, that include notification of most likely descendants (MLDs), and recommendations for treatment of the remains. The MLDs will have 48 hours after notification by the NAHC to make their recommendations (PRC Section 5097.98).

VI. ENERGY Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Responses:

(a - b) Less Than Significant Impact. California has implemented numerous energy efficiency and conservation programs that have resulted in substantial energy savings. The State has adopted comprehensive energy efficiency standards as part of its Building Standards Code, California Codes of Regulations, Title 24. In 2009, the California Building Standards Commission adopted a voluntary Green Building Standards Code, CALGreen, which became mandatory in 2011. CALGreen sets forth mandatory measures applicable to new residential and non-residential structures and additions and alterations on water efficiency and conservation, building material conservation, interior environmental quality, and energy efficiency. Additionally, California has adopted a Renewables Portfolio Standard, which requires electricity retailers in the state to generate 33 percent of the electricity they sell from renewable energy sources (i.e., solar, wind, geothermal, hydroelectric from small generators, etc.) by the end of 2020. In 2018, SB 100 was signed into law, which increases the electricity generation requirement from renewable sources to 60% by 2030 and requires all the state's electricity to come from carbon-free resources by 2045.

The project's main sources of energy consumption would be construction activities and operation of the proposed commercial facilities. Project construction would involve fuel consumption and use of other nonrenewable resources. Construction equipment used for such improvements typically runs on diesel fuel or gasoline. The same fuels are typically used for vehicles transporting equipment and workers to and from a construction site. However, construction-related fuel consumption would be finite, short-term and consistent with construction activities of a similar character. This energy use would not be considered wasteful, inefficient, or unnecessary. Equipment overtime would be more energy-efficient to assist with meeting State emissions reduction goals. Additionally, under California's Renewable Portfolio Standard, a more significant share of electricity would be provided from renewable energy sources over time, so less fossil fuel consumption to generate electricity would occur. The project must comply with the building energy efficiency standards of the California Code of Regulations Title 24, Part 6, also known as the California Energy Code. Compliance with these standards would reduce energy consumption associated with project operations, although reductions from compliance cannot be readily quantified. Overall, project construction and operations would not consume energy resources in a manner considered wasteful, inefficient, or unnecessary; the project would not conflict or obstruct any state or local plans for renewable energy efficiency. Therefore, project impacts related to energy consumption are considered less than significant.

VII. GEOLOGY AND SOILS Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Map issued by the State Geologist for the area, or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Responses:

(a i - iv) Less than Significant Impact. According to the California Earthquake Hazards Zone Application (EQ Zapp) located on the Department of Conservation, the project is not within an Earthquake Fault Zone (Department of Conservation , 2021).

The Earthquake Shaking Potential for California Map located on the Department of Conservations website displays the level of hazards regarding ground shaking for each county. According to the map, Madera is located in a region distant from known active faults and will experience lower levels of shaking less frequently. In most earthquakes, only weaker, masonry buildings would be damaged. However, very infrequent earthquakes could still cause strong shaking. The project area is topographically flat, with no potential for landslides (Department of Conservation , 2016).

(b) Less Than Significant Impact. The proposed project will entail grading of a majority of the 20.12-acre site and the addition of a substantial amount of impervious surface area, consisting of buildings and paved parking and access drives. Any grading proposed for this project will require a grading permit, which will be reviewed to ensure that substantial erosion does not occur. While a mini storage facility itself isn't inherently a cause of soil erosion, improper planning, lack of proper drainage, or insufficient landscaping could contribute to erosion and loss of topsoil. Addressing these factors during the planning and construction phases will result in a less than significant impact.

(c) No Impact. The project site is not located in an area of the County that is subject to on or off site landslide, lateral spreading, subsidence, liquefaction or collapse.

(d) Less Than Significant Impact. According to Table 18-1B of the Uniform Code (1994) soils meeting all four of the following provisions shall be considered expansive, except that tests to show compliance with Items 1, 2 and 3 shall not be required if the test prescribed in Item 4 is conducted (California Building Code , 2022) :

1. Plasticity index (PI) of 15 or greater, determined in accordance with ASTM D4318.
2. More than 10 percent of the soil particles pass a No. 200 sieve (75 μm), determined in accordance with ASTM D422.
3. More than 10 percent of the soil particles are less than 5 micrometers in size, determined in accordance with ASTM D422.
4. Expansion index greater than 20, determined in accordance with ASTM D4829.

According to the U.S. Department of Agriculture, Natural Resources Conservation Services Web Soil Survey, identified soil on the project site that primarily consists of San Joaquin sandy loam (SaA) which has a plasticity of 9.0, and Whitney and Rocklin Sandy (WrB), which has a plasticity of 2.5 and does not meet all four of the provisions required by Table 18-1B therefore, the project would have a less than significant impact.

(e) No Impact. The project proposes the installation of an onsite wastewater treatment system to serve the caretakers residence. The system will require permitting from the County of Madera to ensure that the soils are capable of supporting the septic tank.

(f) Less Than Significant Impact with Mitigation. The subject property is not located in an area of moderate or high sensitivity for archaeological resources. A cultural resources assessment completed for the project, found no unique paleontological or geological resources on the subject property. However, in the unlikely event that such resource is discovered during excavation, the project will be required to follow mitigation procedures.

MM GEO-1. *In the event that cultural resources are unearthed during ground-disturbing activities, all work shall be halted in the area of the find. An Archeologist shall be called to evaluate the findings and make any necessary mitigation recommendations.*

VIII. GREENHOUSE GAS EMISSIONS Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

An Air Quality and Greenhouse Gas Emissions Analysis Report was prepared to evaluate whether the estimated criteria air pollutant, ozone precursor, toxic air contaminant (TAC), and/or greenhouse gas (GHG) emissions generated from construction and/or operation of the proposed Derrel's Mini Storage Project in Madera County, California would cause significant impacts to air resources in the project area. Refer to Appendix A. The respective analyses were conducted within the context of the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] § 21000, et seq.). The methodology follows the Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) prepared by the San Joaquin Valley Air Pollution Control District (SJVAPCD) for the quantification of emissions and evaluation of potential impacts to air resources1 and the SJVAPCD's Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects under the California Environmental Quality Act.

Responses:

(a) Less than Significant Impact. The proposed project may contribute to climate change impacts through its contribution of GHGs. The proposed project would generate a variety of GHGs during construction and operations, including several defined by AB 32, such as CO2, CH4, and N2O from the exhaust of equipment during construction and on-road vehicle trips during construction and operations.

In the absence of an adopted numeric GHG emissions threshold consistent with the State's 2030 target, the project's GHG emissions impact determination is based on the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The project's GHG emissions are provided for informational purposes only.

Quantification of Greenhouse Gas Emissions for Informational Purposes

Construction Emissions

Construction emissions would be generated from the exhaust of construction equipment, material delivery trips, haul truck trips, and worker commuter trips. Detailed construction assumptions are provided in the Modeling Parameters and Assumptions section of this technical memorandum. Construction-generated GHGs were quantified and are disclosed in Attachment A. MTCO2e emissions during construction of the project are summarized below in Table 12.

Table 12: Construction Greenhouse Gas Emissions

Project Construction (2025-2028)	**MTCO2e per Year**
Phases 1 & 2 + RV Storage (2025)	399
Phases 1 & 2 + RV Storage (2026)	665
Phases 1 & 2 + RV Storage (2027)	59
Phase 3 & RV Removal (2027)	280
Phase 3 & RV Removal (2028)	18
Total Construction MTCO2e	1,421
Emissions Amortized Over 30 Years[1]	**47.4**
Notes: MTCO2e = metric tons of carbon dioxide equivalent	

During the construction of the proposed project, approximately 1,421 MTCO2e would be emitted. Neither the County of Madera nor the SJVAPCD have an adopted threshold of significance for construction related GHG emissions. Because impacts from construction activities occur over a relatively short-term period, they contribute a relatively small portion of the overall lifetime project GHG emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. Therefore, a standard practice is to amortize construction emissions over the anticipated lifetime of a project so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies. However, emissions were quantified for informational purposes only. The total emissions generated during construction were amortized based on the life of the development (30 years) and added to the operational emissions to determine the total emissions from the project, as shown below.

Operational Emissions

Operational or long-term emissions occur over the life of the project. The operational emissions for the proposed project are shown in Table 13. Sources for operational emissions include the following:

- Motor Vehicles: These emissions refer to GHG emissions contained in the exhaust from the cars and trucks that would travel to and from the project site. As described in the traffic study prepared for the proposed project, the Derrel's Mini Storage project is expected to generate 438 average daily trips under the "Phases 1 and 2 Developed" scenario and 548 average daily trips under the "Phases 1 through 3 Developed" scenario.
- Natural Gas: These emissions refer to the GHG emissions that occur when natural gas is burned on the project site. Natural gas use is planned for the office space and one residence and could include heating water, space heating, dryers, stoves, or other uses.
- Indirect Electricity: These emissions refer to those generated by offsite power plants to supply electricity required for the project.
- Water Transport: These emissions refer to those generated by the electricity required to transport and treat the water to be used on the project site.
- Waste: These emissions refer to the GHG emissions produced by decomposing waste generated by the project.

Detailed modeling results and more information regarding assumptions used to estimate emissions are provided in Attachment A. Operational emissions are shown below in Table 13.

Table 13: Operational Greenhouse Gas Emissions for Project Buildout (Phases 1 & 2 + RV Storage Developed)

Source Category	Project Total Buildout Phases 1 & 2 + RV Storage Developed (MTCO2e/year)	Project Total Buildout Phases 1 – 3 Developed (MTCO2e/year)
Area	5.6	5.9
Energy Consumption	444.6	532.0
Mobile (On-road Vehicles)	939.1	1166.6
Water Usage	113.2	145.9
Solid Waste Generation	86.4	111.3
Refrigerants	0.002	0.002
Amortized Construction Emissions	47.4	47.4
Total	**1,636**	**2,009**

Notes:

$MTCO_2e$ = metric tons of carbon dioxide equivalent

Source: CalEEMod Output (Attachment A).

As previously noted, the project's estimated emissions were estimated for disclosure purposes. However, significance for GHG emissions is analyzed by assessing the project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. As discussed in detail below, the project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of GHGs. As such, the project's generation of GHG emissions would not result in a significant impact on the environment.

Impact Analysis (Project's Compliance with Consideration No. 3 Regarding Consistency with Adopted Plans to Reduce GHG Emissions)

The following analysis evaluates the project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. As discussed above, the County of Madera has not adopted a GHG reduction plan. In addition, the County has not completed the GHG inventory, benchmarking, or goal-setting process required to identify a reduction target and take advantage of the streamlining provisions contained in the CEQA Guidelines amendments adopted for SB 97 and clarifications provided in the CEQA Guidelines. The SJVAPCD has adopted a Climate Action Plan, but it does not contain measures that are applicable to the project. Therefore, the SJVAPCD Climate Action Plan cannot be applied to the project. Since no other local or regional Climate Action Plan is in place, the project is assessed for its consistency with CARB's adopted 2008, 2017, and 2022 Scoping Plans.

Greenhouse Gas Emissions Estimation Summary and Greenhouse Gas Impact Analysis

Greenhouse Gas Impact Analysis

The following analysis assesses the proposed project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. The proposed project is assessed for its consistency with CARB's adopted Scoping Plans. This would be achieved with an assessment of the proposed project's compliance with Scoping Plan measures contained in the 2017 Scoping Plan Update and addressing the project's consistency with the 2022 Scoping Plan.

Consistency with SB 32

The 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) includes the strategy that the State intends to pursue to achieve the 2030 targets of Executive Order S-3-05 and SB 32. The 2017 Scoping Plan includes the following summary of its overall strategy for reaching the 2030 target:

- SB 350
  - Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
  - Doubling of energy efficiency savings by 2030.
- Low Carbon Fuel Standard (LCFS)
  - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
- Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
  - Maintaining existing GHG standards for light- and heavy-duty vehicles.
  - Put 4.2 million zero-emission vehicles (ZEVs) on the roads.
  - Increase ZEV buses, delivery and other trucks.
- Sustainable Freight Action Plan
  - Improve freight system efficiency.
  - Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
  - Deploy over 100,000 zero-emission trucks and equipment by 2030.
- Short-Lived Climate Pollutant (SLCP) Reduction Strategy
  - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
  - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
- SB 375 Sustainable Communities Strategies
  - Increased stringency of 2035 targets.
- Post-2020 Cap-and-Trade Program
  - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada. CARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In Fall 2016, CARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.

- By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Table 14 provides an analysis of the project's consistency with the 2017 Scoping Plan Update measures.

Table 14: Consistency with SB 32 2017 Scoping Plan Update

Scoping Plan Measure	Project Consistency
SB 350 50% Renewable Mandate. Utilities subject to the legislation will be required to increase their renewable energy mix from 33% in 2020 to 50% in 2030. This has been increased to 60%.	**Consistent**: The project will purchase electricity from a utility subject to the SB 350 Renewable Mandate SB 100 Renewable Mandate. SB 100 revised the Renewable Portfolio Standard goals to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. The specific provider for the County of Madera and the proposed project is Pacific Gas and Electric (PG&E).
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.	**Not Applicable**. This measure applies to existing buildings. New structures are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency over time.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Consistent**. Vehicles accessing the project site will use fuel containing lower carbon content as the fuel standard is implemented.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario). Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	**Consistent**. The project consists of construction and development of a Derrel's Mini Storage facility (buildings, paving, and parking). The project would not engage in vehicle manufacturing; however, vehicles would access the project site during project operations. Future project customers and other visitors can be expected to purchase increasing numbers of more fuel efficient and zero emission cars and trucks each year. Visiting truck trips will be made by increasing numbers of ZEV trucks as fleets turnover across the state.
Sustainable Freight Action Plan. The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.	**Not Applicable**. The measure applies to owners and operators of trucks and freight operations. The vast majority of trucks visiting the project site would not be owned or controlled by the project applicant or future project tenants. However, deliveries and truck customers that would travel to the future Derrel's Mini Storage development are expected to be made by increasing number of ZEV trucks.
Scoping Plan Measure	**Project Consistency**
Short-Lived Climate Pollutant (SLCP) Reduction Strategy. The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	**Consistent.** Sources of black carbon are already regulated by the CARB and air district criteria pollutant and toxic regulations that control fine particulate emissions from diesel engines and other combustion sources. Furthermore, the project would not include wood-burning sources.
SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a sustainable community's strategy for reduction of per capita vehicle miles traveled.	**Not Applicable**. The project does not consist of a proposed regional transportation plan; therefore, this measure is not applicable to the proposed project.

Post-2020 Cap-and-Trade Program. The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Consistent.** The post-2020 Cap-and-Trade Program indirectly affects people who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the program's first compliance period.
Natural and Working Lands Action Plan. The CARB is working in coordination with several other agencies at the federal, state, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not Applicable**. The project consists of a Derrel's Mini Storage facility development with buildings, paving and parking. The Mini Storage facility will not be considered as natural or working lands.
Source: California Air Resources Board (CARB). 2017. The 2017 Climate Change Scoping Plan Update. January 20. Website: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf. Accessed March 5, 2024.	

Consistency Regarding GHG Reduction Goals for 2050 under Executive Order S-3-05 and GHG Reduction Goals for 2045 under the 2022 Scoping Plan

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures with any level of certainty, as they have not yet been developed; nevertheless, it can be anticipated that operation of the project would comply with whatever measures are enacted that state lawmakers decide would lead to an 80 percent reduction below 1990 levels by 2050. In its 2008 Scoping Plan, CARB acknowledged that the "measures needed to meet the 2050 are too far in the future to define in detail." In the First Scoping Plan Update; however, CARB generally described the type of activities required to achieve the 2050 target: "energy demand reduction through efficiency and activity changes; large scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately." The 2017 Scoping Plan provides an intermediate target that is intended to achieve reasonable progress toward the 2050 target. In addition, the 2022 Scoping Plan outlines objectives, regulations, planning efforts, and investments in clean technologies and infrastructure that outlines how the State can achieve carbon-neutrality by 2045.

CARB's 2022 Scoping Plan for Achieving Carbon Neutrality was approved in December 2022 and expands on prior Scoping Plans and legislations-such as AB 1279-by outlining a technologically feasible, cost-effective, and equity-focused path to achieve the State's climate target of reducing anthropogenic GHG emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045 or earlier.[20] To achieve carbon neutrality by 2045, the 2022 Scoping Plan contains GHG reductions, technology, and clean energy mandated by statutes, reduction of short-lived climate pollutants, and mechanical carbon dioxide capture and sequestration actions. Table 15 contains a list of key GHG emission reduction actions and strategies from the 2022 Scoping Plan and assesses the project's consistency with these actions and strategies.

Table 15: Project Consistency with 2022 Scoping Plan

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
Transportation Technology 1) Achieve 100 percent ZEV sales of light duty vehicles by 2035 and medium heavy-duty vehicles by 2040. 2) Achieve 20 percent zero-emission target for the aviation sector. 3) Develop a rapid and robust network of ZEV refueling infrastructure to support needed transition to ZEVs. 4) Ensure that the transition of ZEV technology is affordable for low-income households and communities of color and meets the needs of communities and small business. 5) Prioritize incentive funding for heavy-duty ZEV technology deployment in regions of the state with the highest concentrations of harmful criteria and toxic air contaminant emissions. 6) Promote private investment in the transition to ZEV technology, undergirded by regulatory certainty such as infrastructure credits in the Low Carbon Fuel Standard for hydrogen and electricity and hydrogen station grants from the CEC's Clean Transportation Program pursuant to Executive Order B-48-18.	State agencies and local agencies	**No Conflict**: Vehicles must transition to zero-emission technology to decarbonize the transportation sector. Executive Order N-79-20 reflects the urgency of transitioning to zero emission vehicles (ZEVs) by establishing target dates for reaching 100 percent ZEV sales or fleet transitions to ZEV technology. EO N-79-20 calls for 100 percent ZEV sales of new light-duty vehicles by 2035. The Advanced Clean Cars II regulation fulfills this goal and serves as the primary mechanism to help deploy ZEVs. A number of existing incentive programs also support this transition, including the Clean Cars 4 All Program. EO N-79-20 also sets targets for transitioning the medium- and heavy-duty fleet to zero emissions: by 2035 for drayage trucks and by 2045 for buses and heavy-duty long-haul trucks where feasible. Replacing heavy-duty vehicles with ZEV technology will substantially reduce GHG emissions and diesel PM emissions in communities adjacent to ports, distribution centers, and highways. EO N-79-20 sets an off-road equipment target of transitioning the entire fleet to ZEV technology by 2035, where feasible. There are a number of funding

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
• Evaluate and continue to offer incentives similar to those through FARMER, Carl Moyer, the Clean Fuel Reward Program, the Community Air Protection Program, the Low Carbon Transportation, including CORE. Where feasible, prioritize and increase funding for clean transportation equity programs. • Continue and accelerate funding support for zero emission vehicles and refueling infrastructure through 2030 to ensure the rapid transformation of the transportation sector.		sources available to support this transition, including FARMER, Carl Moyer, and Community Air Protection Incentives; as well as Low Carbon Transportation Incentives, including the Clean Off-Road Equipment program. Refueling infrastructure is a crucial component of transforming transportation technology. Electric vehicle chargers and hydrogen refueling stations must become easily accessible for all drivers to support a wholesale transition to ZEV technology. Deployment of ZEV refueling infrastructure is currently supported by a number of existing State public funding mechanisms. Intrastate aviation relies on internal combustion engine technology today, but battery-electric and hydrogen fuel cell aviation applications are in development, along with sustainable aviation fuel. GHG emissions generated by project-related passenger and truck vehicle travel would benefit from the above regulations and programs, and mobile source emissions generated by the proposed project would be reduced as automobiles and truck fleets are transitioned to ZEV technology. Additionally, the project would include EV charging infrastructure in accordance with regulations which would support the transition to EV technology. Thus, the project would not conflict with actions under the transportation technology sector.
Transportation Fuels • Accelerate the reduction and replacement of fossil fuel production and consumption in California. • Incentivize private investment in new zero-carbon fuel production in California. • Incentivize the transition of existing fuel production and distribution assets to support deployment of low- and zero-carbon fuels while protecting public health and the environment. • Invest in the infrastructure to support reliable refueling for transportation such as electricity and hydrogen refueling. • Evaluate and propose, as needed, changes to strengthen the Cap-and-Trade Program. • Initiate a public process focused on options to increase the stringency and scope of the LCFS: - Evaluate and propose accelerated carbon intensity targets pre-2030 for LCFS. - Evaluate and propose further declines in LCFS post-2030 carbon intensity targets to align with this 2022 Scoping Plan. - Consider integrating opt-in sectors into the program.	State agencies and local agencies	**No Conflict**: Mobile source emissions generated by the project would be reduced with implementation of the wider use of zero-carbon fuels consistent with reduction of GHG emissions under AB 1279. Additionally, the project would utilize energy efficiency appliances and equipment and will meet the applicable energy standards in the Title 24 Building Energy Efficiency Standards and CALGreen Code, which will limit the amount of fossil fuel use and GHG emissions. During operations the project will provide improvements to the pedestrian network by complying with local building codes and incorporating paved areas and landscaping. Considering the actions and strategies require action by the state and local agencies, project consistency is determined by assessing whether the project would conflict with the actions needed in the transportation fuels sector. As supported by the information provided above, the project would not conflict with actions in the transportation fuels sector.

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
- Provide capacity credits for hydrogen and electricity for heavy-duty fueling. • Monitor for and ensure that raw materials used to produce low-carbon fuels or technologies do not result in unintended consequences.		
Vehicles Miles Traveled • Achieve a per capita VMT reduction of at least 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045. • Reimagine new roadway projects that decrease VMT in a way that meets community needs and reduces the need to drive. • Invest in making public transit a viable alternative to driving by increasing affordability, reliability, coverage, service frequency, and consumer experience. • Implement equitable roadway pricing strategies based on local context and need, reallocating revenues to improve transit, bicycling, and other sustainable transportation choices. • Expand and complete planned networks of high-quality active transportation infrastructure. • Channel the deployment of autonomous vehicles, ride-hailing services, and other new mobility options toward high passenger-occupancy and low VMT-impact service models that complement transit and ensure equitable access or priority populations. • Streamline access to public transportation through programs such as the California Integrated Travel Project. • Ensure alignment of land use, housing, transportation, and conservation planning in adopted regional plans and local plans (e.g., general plans, zoning, and local transportation plans), and develop tools to support implementation of these plans. • Accelerate infill development and housing production at all affordability levels in transportation-efficient places, with a focus on housing for lower income residents.	State agencies and local agencies	**No Conflict**: VMT reductions will play a crucial role in reducing overall transportation energy demand and achieving California's climate, air quality, and equity goals. CARB did not set regulatory limits on VMT in the 2022 Scoping Plan because the authority to reduce VMT largely lies with state, regional, and local transportation, land use, and housing agencies, along with the Legislature and its budgeting choices. The project-specific traffic report includes a VMT analysis for the project.[21] The traffic report found that the project would have a less than significant VMT impact. As such, the project would not conflict with actions in the vehicle miles traveled sector.
Clean Electricity Grid • Per SB 350, double statewide energy efficiency savings in electricity and fossil gas end uses by 2030, through a combination of energy efficiency and fuel substitution actions. • Use long-term planning processes to support grid reliability and expansion of renewable and zero-carbon resource and infrastructure deployment. • Complete systemwide and local reliability assessments. Such assessments should be	State agencies and local agencies	**No Conflict**: Decarbonizing the electricity sector depends on both using energy more efficiently and replacing fossil-fueled generation with renewable and zero carbon resources, including solar, wind, energy storage, geothermal, biomass, and hydroelectric power. The RPS Program and the Cap-and-Trade Program continue to incentivize dispatch of renewables over fossil generation to serve state demand.

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
completed before state agencies update their electricity sector GHG targets. • Prioritize actions to mitigate impacts to electricity reliability and affordability and provide sufficient flexibility in the state's decarbonization roadmap for adjustments as may be needed. • Facilitate long lead-time resource development. • Continue coordination between energy agencies and energy proceedings to maximize opportunities for demand response. • Continue to explore the benefits of regional markets to enhance decarbonization, reliability, and affordability. • Address resource build-out challenges, including permitting, interconnection, and transmission network upgrades. • Explore new financing mechanisms and rate designs to address affordability. • Per SB 100 and SB 1020, achieve 90 percent, 95 percent, and 100 percent renewable and zero- carbon retail sales by 2035, 2040, and 2045, respectively. • Evaluate and propose, as needed, changes to strengthen the Cap-and-Trade Program. • Target programs and incentives to support and improve access to renewable and zero-carbon energy projects (e.g., rooftop solar, community owned or controlled solar or wind, battery storage, and microgrids) for communities most at need, including frontline, low-income, rural, and indigenous communities. • Prioritize public investments in zero-carbon energy projects to first benefit the most overly burdened communities affected by pollution, climate impacts, and poverty.		SB 100 increased RPS stringency to require 60 percent renewables by 2030 and for California to provide 100 percent of its retail sales of electricity from renewable and zero-carbon resources by 2045. Furthermore, SB 1020 has added interim targets to SB 100's policy framework to require renewable and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035 and 95 percent of all electricity retail sales by 2040; establish a planning goal of at least 20 GW of offshore wind by 2045; and that state agencies plan for an energy transition that avoids the need for new fossil gas capacity to meet California's long-term energy goals. California also continues to advance its appliance and building energy efficiency standards to reduce growth in electricity consumption and meet the SB 350 goal to double statewide energy efficiency savings in electricity and fossil gas end uses by 2030. Increased transportation and building electrification and continued policy commitment to behind-the-meter solar and storage will continue to drive growth of microgrids and other distributed energy resources. Continued transition to renewable and zero-carbon electricity resources will enable electricity to become a zero-carbon substitute for fossil fuels. This transformation will drive investments in a large fleet of generation and storage resources but will also require significant transmission to accommodate these new capacity additions. Resources such as storage and demand-side management are essential to maintain reliability with high concentrations of renewables. Hydrogen produced from renewable resources and renewable feedstocks can serve a dual role as a low-carbon fuel for existing combustion turbines or fuel cells, and as energy storage for later use. The proposed project would utilize energy efficiency appliances and equipment and will meet the applicable energy standards in the Title 24 Building Energy Efficiency Standards and CALGreen Code. As such, the project would not conflict with actions under the clean electricity grid sector.
Sustainable Manufacturing and Buildings • Maximize air quality benefits using the best available control technologies for stationary sources in communities most in need. • Implement SB 905, which requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate carbon capture, utilization, and sequestration and carbon dioxide removal projects and technology.	State agencies and local agencies	**No Conflict**: The 2022 Scoping Plan reduces dependence on fossil gas in the industrial and building sectors by transitioning substantial energy demand to alternative fuels. Combustion of fossil gas, other gaseous fossil fuels, and solid fossil fuels provide energy to meet three broad industry needs: electricity, steam, and process heat. Non-combustion emissions result from fugitive emissions and from the chemical transformations inherent to some manufacturing processes. Decarbonizing industrial

• End fossil gas infrastructure expansion for newly constructed buildings. • Develop a net-zero cement strategy to meet SB 956 targets for the GHG intensity of cement use. • Leverage energy efficiency and low carbon hydrogen programs. • Prioritize most vulnerable residents with the majority of funds in the new $922 million Equitable Building Decarbonization program. • Achieve three million all-electric and electric-ready homes by 2030 and seven million by 2035 with six million heat pumps installed by 2030. • Adopt a zero-emission standard for new space and water heaters sold in California beginning in 2030. • Implement biomethane procurement targets for investor-owned utilities as specified in SB 1440.		facilities depends upon displacing fossil fuel use with a mix of electrification, solar thermal heat, biomethane, low- or zero-carbon hydrogen, and other low-carbon fuels to provide energy for heat and reduce combustion emissions. Emissions also can be reduced by implementing energy efficiency measures and using substitute raw materials that can reduce energy demand and some process emissions. Some remaining combustion emissions and some non-combustion CO_2 emissions can be captured and sequestered. This sector has a continuing demand for fossil gas due to lack of non-combustion technologically feasible or cost-effective alternatives for certain industrial sectors. Microgrids powered by renewable resources and with battery storage are emerging as a key enabler of electrification and decarbonization at industrial facilities. The project is a mini storage project and would not include industrial uses. The project will utilize energy efficiency appliances for the office space and manager's residence. The project would also meet the applicable energy standards in the Title 24 Building Energy Efficiency Standards and CALGreen Code. During operations, the project will provide improvements to the pedestrian network and would have a less-than-significant VMT impact. As such, the project would not conflict with sustainable manufacturing buildings industry sector.
Carbon Dioxide Removal and Capture Sector • Implement SB 905. • Achieve the 85 percent reduction in anthropogenic sources below 1990 levels per AB 1279 by incorporating Carbon Capture and Storage (CCS) into sectors and programs beyond transportation. • Evaluate and propose the role for CCS in cement decarbonization and as part of hydrogen peroxide pathways. • Explore carbon capture application for zero-carbon power for reliability needs per SB 100.	State agencies and local agencies	**No Conflict**: CARB has acknowledged that the deployment of carbon dioxide removal to counterbalance hard-to-abate residual emissions is needed to achieve net zero GHG emissions. Modeling shows that emissions from the AB 32 GHG Inventory sources will continue to persist even if all fossil related combustion emissions are phased out. Carbon dioxide removal includes both sequestration in natural and working lands and mechanical approaches such as: direct air capture, CCS (which is carbon capture from anthropogenic point sources involves capturing carbon from a smokestack of an emitting facility), or direct air capture (which captures carbon directly from the atmosphere). The project would not conflict with measures to increase carbon dioxide removal and capture. As such, the project would not conflict with action under the carbon dioxide removal and capture sector.
Short-Lived Climate Pollutants (Non- Combustion Gases)	State agencies and local agencies	**No Conflict**: SLCPs include black carbon, methane, and fluorinated gases. Dairy and livestock are the largest source of methane emissions followed by landfills. Black Carbon (soot) comes primarily from transportation, specifically heavy-duty vehicles

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
• Install anaerobic digesters to maximize air and water quality protection, maximize biomethane capture, and direct biomethane to specific sectors. • Increase alternative manure management projects. • Expand markets for products made from organic waste. • Pursuant to SB 1137, develop leak detection and repair plans for facilities in health protection zones, implement emission detection system standards, and provide public access to emissions data. • Convert large HFC emitters to the lowest practical global warming potential (GWP) technologies.		followed by fuel combustion for residential, commercial, and industrial uses. The project would not conflict with SLCP dairy and livestock methane sector actions in the 2022 Scoping Plan. The project is a mini storage development and does not include dairy or livestock. Furthermore, the project does not include a new landfill or any oil or gas production, processing, or storage facilities. The project would comply with the 2022 CalGreen Code for energy efficiency and use of high-GWP refrigerants and would not conflict with these policies or actions. The project is a mini storage development that would not include fireplaces and would not result in a significant VMT impact; lower VMT results in a reduction of fuel combustion. Considering the information presented above, the project would not conflict with SLCP sector actions in the 2022 Scoping Plan.
Natural and Working Lands • Implement AB 1757 and SB 27. • Implement the Climate Smart Strategy. • Accelerate the pace and scale of climate smart forest management to at least 2.3 million acres annually by 2025. • Accelerate the pace and scale of healthy soils practices to 80,000 acres annually by 2025, conserve at least 8,000 acres of annual crops annually, and increase organic agriculture to 20 percent of all cultivated acres by 2045. • Restore 60,000 acres of Delta wetlands annually by 2045. • Increase urban forestry investment annually by 200 percent, relative to business as usual.	State agencies and local agencies	**No Conflict**: AB 1757 requires state agencies to set targets for natural carbon removal and emissions reductions on natural and working lands. AB 1757 is expected to catalyze natural carbon sequestration in California by: requiring California Natural Resources Agency and CARB to establish targets for sequestration on natural and working lands for 2030, 2038, and 2045; ensuring that natural sequestration projects have rigorous measurement and verification; and establishing an expert committee to advise state agencies on modeling and implementation. SB 27 is designed to accelerate the removal of carbon from the atmosphere by expanding California's carbon removal capability (i.e. sequestration) and improve the carbon retention of the state's natural and working lands. The project is a mini storage development and would not include natural working lands. As such, the project would not conflict with natural and working strategies under the 2022 Scoping Plan.
Source: California Air Resources Board (CARB). 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. November 16. Website: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp_1.pdf. Accessed April 2024.		

As show above in Table 15, the project would not conflict with relevant 2022 Scoping Plan actions or strategies that aim to achieve the State's climate target of reducing anthropogenic emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045.

Conclusion

Taking into account the proposed project's emissions, project design features, and the progress being made by the State towards reducing emissions in key sectors such as transportation, industry, and electricity, the project would be consistent with State GHG Plans and would further the State's goals of reducing GHG emissions to 1990 levels by 2020, 40 percent below 1990 levels by 2030, carbon neutral by 2045, and 80 percent below 1990 levels by 2050, and does not obstruct their attainment. The proposed project's GHG impacts would be less than significant.

(b) Less Than Significant Impact. The analysis contained above under Impact GHG-1 evaluates whether the project would conflict with any applicable plan, policy, or regulation of an agency adopted to reduce the emissions of GHGs. As discussed under Impact GHG-1 above, the project would not conflict with any applicable plan, policy, or regulation of agency to reduce. As such, project impacts in this regard would be less than significant.

IX. HAZARDS AND HAZARDOUS MATERIALS Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
f) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Responses:

(a-c) No Impact. The project does not involve the handling of hazardous materials as part of the operation of the proposed personal storage and recreational vehicle storage facility. Additionally, this project will be subject to the provisions of the California Health and Safety Code (HSC), which requires that any business that handles a hazardous material or hazardous waste may be required to submit a Hazardous Materials Business Plan online, through the Cal EPA, California Environmental Reporting System (CERS). All hazardous waste shall be handled in accordance with the California HSC, Title 22, Division 4.5. The nearest school to the project site is Riverstone Elementary School, located approximately 1.0 mile east.

(d) No Impact. According to a search of the Environmental Protection Agency's NEPAssist tool, and the California Environmental Protection Agency's (Cal EPA), Department of Toxic Substances Control, Enviro Stor mapping tool, the proposed project is not located on or near a known hazardous material site.

(e) No Impact. There are no airports within two miles of the project site, and the site is not within an airport/airspace overlay zone. Therefore, the project would not expose people to a safety risk or excessive noise associated with airport operations.

(f) No Impact. The subject property is not located within an area subject to an adopted emergency response plan or emergency evacuation plan. Therefore, the project will not impair the implementation of or physically interfere with any such plans.

(g) No Impact. The project site is not located in a State Responsibility Area (SRA) and is not in a region prone to wildland fires.

X. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☐	☒
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
(i) Result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
(iv) Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Responses:

A “Water Supply Analysis Memorandum ” (Provost & Pritchard 2024) was prepared for the project and is included in Appendix C of this Initial Study. Information and analysis from the technical analysis are incorporated in the responses below. (Appendix C)

(a) No Impact. The project is not expected to violate any water quality standards.

(b) Less Than Significant Impact. Estimated Water Demands Water demands will include domestic use by the resident manager, customer restroom, on-site landscaping, and a water feature. These water demands are described and estimated below.

<u>On-Site Residence</u>
The on-site residence will be long-term housing for the on-site manager. Up to two people will live in the residence. The State of California has established indoor water use goals of 50 gallons/capita/day. Since the residents will not leave for work they are expected to have higher water usage of about 55-60 gallons/capita/day. This value was increased to 75 gallons/capita/day to be conservative, resulting in total demand of 150 gallons/day, which equates to 0.17 acre-feet/year.

<u>Customer Restroom</u>
A commercial restroom will be provided for customers. Derrel's Mini Storage reviewed historical visitation data for three similarly sized mini-storage sites, and found that, on average, 96 customers visited each day. Based on observations from the on-site residents, less than 10% of customers use the restroom. Therefore, if it assumed that ten customers use the restroom each day it would result in 10 visits/day x (1.6 gallons/toilet flush + 1 gallon/hand wash) x 365 days/yr = 9,490 gallons/year = 0.03 acre-feet/year. Bottled drinking water will be available to the customers in the main office.

The volume of liquid waste generated and sent to the local septic system will be the indoor water usage described above. This equates to 0.17 + 0.03 = 0.2 acre-feet, which is equivalent to 179 gallons/day.

<u>Landscaping</u>
Landscaping is expected to cover 67,000 square feet (sf), although 12,000 sf will be synthetic turf in lieu of grass, resulting in 55,000 sf of irrigated landscaping. Low water use / drought tolerant plants and mulch will be used for all landscaped areas. All landscaping will also comply with the Madera County Drought Tolerant Landscape Ordinance (MCC Chapter 13.56).

Total landscape demands were based on the following formula:

ETc = Kc x Eto

Where

ETc = crop evapotranspiration
Kc = crop coefficient
ETo = reference crop evapotranspiration

Reference crop ET (ETo) data was downloaded from the California Irrigation Management Information System (CIMIS) for Station 80, Fresno State. This is the closest CIMIS station to the project site. The monthly average ETo at this station, based on historical data collected since 1988, is 57.4 inches or 4.8 feet.

For the drought tolerant landscaping, a crop coefficient of 0.3 was used based on Smeal

(2009)1, who stated ‘an overall Kl of 0.3 is suggested for estimating the water requirements of a mixed species xeriscape’, where Kl is the coefficient for drought-tolerant landscape plants.

This results in irrigation demands of: (55,000 sf x 4.8 feet x 0.3) / 75% irrigation efficiency = 105,600 cubic feet = 2.42 acre-feet. This analysis conservatively ignored contributions from direct precipitation onto landscaped areas.

Water Feature
The project site may include a decorative water feature (fountain). The area of the water feature will be 1,000 square feet. The water will be recirculated so the only water demands will come from evaporative losses. Based on the local evaporation rate of 57.4 in/year (4.8 feet), total evaporative losses are estimated to be 4,800 cubic feet or 0.11 acre-feet. This estimate ignores contributions from precipitation directly onto the fountain water.

Total Water Demands
Total water demands are summarized in the table below:

Table 1 – Total Water Demands

Description	**Volume (acre-feet)**
On-site Residence	0.17
Customer Restroom	0.03
Landscaping	2.42
Water Feature	0.11
Total	2.73

This results in overall usage of 2.73 acre-feet/20.1 acres = 0.14 acre-feet/acre. This equates to 2,437 gallons/day.

Fire Suppression Supplies and Demands
Currently there is no existing fire line infrastructure that can provide fire suppression water, and none of the potential water supply options could meet required fire flows. As a result, the project site will include a storage tank and fire hydrant to meet fire suppression demands.

A County standard Dry Barrel Hydrant will be installed within 400 feet of the furthest portion of the proposed buildings measured by the way of drivable access. The hydrant location will be approved by the Madera County Fire Marshall prior to installation of any portion of the system (CFC, Section 507.5.1)

A water tank will be provided with adequate storage to meet the fire-water flowrate and duration requirements stipulated by the Madera County Fire Marshall.

(c i - iv) Less Than Significant Impact. The project will not result in substantial off site erosion or siltation, increase the rate of surface runoff, resulting in off site flooding, create or contribute storm water runoff that would exceed existing or planned drainage capacity, or create substantial sources of polluted runoff. The project does entail the addition of impervious surfaces. There are no natural drainage channels traversing the property.

(d) Less Than Significant Impact. The project is not located in a flood hazard, tsunami, or seiche zone, and would not have the potential to release pollutants from flooding.

(e) No Impact. The project will not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. The project was reviewed by the Madera County Department of Public Works and Environmental Health Division which did not express any concerns.

XI. LAND USE AND PLANNING Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Responses:
(a, b) No Impact. The project will not physically divide an established community or conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

XII. MINERAL RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Responses:

(a - b) No Impact. The project site is not within an area identified as having a known mineral resource of value to the state or region. The site is not in an area delineated in the Madera County General Plan or other land use plan as a locally important mineral resource recovery site.

XIII. NOISE Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinances, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

An "Acoustical Analysis – DERREL'S MINI-STORAGE #86 NOISE LEVELS, MADERA COUNTY" (WJV Acoustics, 2024) was prepared for the project and is included in Appendix D of this Initial Study. Information and analysis from the acoustical analysis is incorporated in the responses below.

Responses:

(a, b) Less Than Significant Impact. The Madera County Noise Element of the General Plan sets compatibility standards for transportation-related noise sources and stationery (non-transportation) noise sources. Public roadways are considered transportation noise sources. Noise sources *not* related to traffic on public roadways, railroads or aircraft in flight are considered stationary noise sources. Such sources generally include commercial uses and stationary equipment. For transportation noise sources, the Noise Element establishes land use compatibility criteria in terms of the Day-Night Average Level (Ldn) or Community Noise Equivalent Level (CNEL). The CNEL is applicable only to aircraft noise exposure, as required by the State of California. The County's exterior noise exposure criterion is 60 dB Ldn within outdoor activity areas of residential land uses unless the noise-sensitive use of concern is to be located near State Highway 99 or the Union Pacific or BNSF Railroad mainlines where an exterior exposure of up to 65 dB Ldn is allowed. Outdoor activity areas
generally include backyards of single-family residences and individual patios or decks of multi-family developments. The intent of the exterior noise level requirement is to provide an acceptable noise environment for outdoor activities and recreation.

The Noise Element also requires that interior noise levels attributable to exterior transportation noise sources not exceed 45 dB Ldn. The intent of the interior noise level standard is to provide an acceptable noise environment for indoor communication and sleep. For stationary noise sources, the Noise Element establishes noise compatibility criteria in terms of the hourly equivalent sound level (Leq) and maximum sound level (Lmax). The standards are more restrictive during the nighttime hours, defined as 10:00 p.m. to 7:00 a.m. The Noise Element standards for stationary noise sources are summarized in Table I. The standards are to be adjusted by -5 dB if the noise source of concern consists primarily of speech or music.

TABLE I

MADERA COUNTY NOISE ELEMENT STANDARDS STATIONARY NOISE SOURCES

	Daytime (7:00 a.m.-10:00 p.m.)	**Nighttime (10:00 p.m.-7:00 a.m.)**
Hourly Equivalent Sound Level (L_{eq}), dBA	50	45
Maximum Sound Level (L_{max}), dBA	70	65

[1]As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers on the property line.
Source: Madera County Noise Element

The project would include a residential space for on-site employees. For Madera County, the exterior noise level standard for residential land uses is 60 dB Ldn and interior noise standard is 45 dB Ldn. The residence would be located approximately 300 feet north of Avenue 12 and approximately 150 east of Road 39 ½. In order to quantify noise exposure levels at the proposed residence location, WJVA utilized the FHWA Traffic Noise Model and traffic data provided by the project traffic engineer, Peters Engineering Group.

Using the FHWA model and the traffic data provided by the traffic engineer, the combined (Avenue 12 and Road 39 ½) traffic noise exposure at the proposed residential land use was calculated to be approximately 53 dB Ldn. Such noise levels do not exceed the Madera County exterior noise level standard of 60 dB Ldn. Additionally, this described noise level does not take into account any acoustic shielding provided by the proposed perimeter wall or the storage buildings, and should therefore be considered a worst-case assessment of traffic noise exposure at the proposed on-site residential land use.

In regards to the County's interior noise level standard of 45 dB Ldn, the worst-case noise exposure at the proposed residential use would be approximately 53 dB Ldn. This means that the proposed residential construction must be capable of providing a minimum outdoor-to-indoor noise level reduction (NLR) of approximately 8 dB (53-45=8).

A specific analysis of interior noise levels was not performed. However, it may be assumed that residential construction methods complying with current building code requirements will reduce exterior noise levels by approximately 25 dB if windows and doors are closed. This will be sufficient for compliance with the County's 45 dB Ldn interior standard.

The project would not produce any operational noise other than on-site vehicle movements and the occasional opening/closing of individual storage units. Such noise levels would be similar to those produced in typical commercial/retail parking lots.

Noise due to traffic in parking lots is typically limited by low speeds and is not usually considered to be significant. Human activity in parking lots that can produce noise includes voices, stereo systems and the opening and closing of car doors and trunk lids. Such activities can occur at any time the parking lot is open. The noise levels associated with these activities cannot be precisely defined due to variables such as the number of parking movements, time of day and other factors. It is typical for a passing car in a parking lot to produce a maximum noise level of 60 to 65 dBA at a distance of 50 feet, which is comparable to the level of a raised voice.

The closest off-site sensitive receptor (residential land use) to the project site is located approximately 300 feet to the east, along the north side of Avenue 12. At this distance, and taking into consideration the noise attenuation provided by the proposed perimeter wall, noise associated with on-site vehicle and human activities would not be expected to exceed 45 dB. Such levels would not exceed any Madera County noise standards.

As described above, exterior and interior traffic noise exposure levels at the proposed on-site residential land use would not exceed any Madera County noise standards. Additionally, noise associated with project operations would not exceed any Madera County noise standards at any offsite sensitive receptor locations. Therefore, any impact would be less than significant.

c) No Impact. There are no airports within two miles of the project site, and the site is not within an airport/airspace overlay zone. Therefore, the project would not expose people to excessive noise associated with airport operations.

XIV. POPULATION AND HOUSING Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and business) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Responses:

(a, b) No Impact. The project will not induce population growth, as no new infrastructure, residential or commercial development, other than the proposed mini storage facility with a single caretaker residence, is proposed with this project. The project will not displace any people or substantial housing in the area. The subject property is agriculturally zoned which prohibits residential subdivisions.

XV. PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☐	☒

Responses:

(a – i-ii) Less Than Significant Impact. In the event of a fire, the nearest fire station is Madera County Fire Station No. 9, located approximately two miles south of the property. If incidents of theft occur, sheriff services may be required; however, the overall impact is expected to be less than significant.

(a – iii-v) No Impact. The project will not require the provision of or create the need for new or physically altered governmental facilities. The proposed facility will provide one residential dwelling for an on-site full-time caretaker.

XVI. RECREATION	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Responses:

(a – b) No Impact. The project would not increase the use of existing parks or recreational facilities, and the project does not include or require construction of recreational facilities.

_____

XVII. TRANSPORTATION Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☐	☒

A “Traffic Study – Proposed Commercial Development” (Peters Engineering Group) was prepared for the project and is included in Appendix E of this Initial Study. Information and analysis from the acoustical analysis is incorporated in the responses below.

Responses:

(a) No Impact. The project will not impact any plan, program, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

(b) Less Than Significant Impact. A Traffic Impact Study (TIS) dated April 15, 2024, was prepared for this project by Peters Engineering Group, per the recommendation from the Madera County Department of Public Works.

The TIS evaluated the intersection of Avenue 12 and Road 39½ and a trip trace (estimate of the number of Project trips) at the intersection of Avenue 12 and State Route 41. The County requested analysis of the intersection of Avenue 12 and Road 40, however, as of the date the traffic counts were performed, Road 40 had been closed to all traffic with K rail for several months. Therefore, it was impossible to perform traffic counts of the intersection of Avenue 12 and Road 40. The study time periods for operational analyses include the weekday a.m. and p.m. peak hours determined between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. Based on comments received from County staff, the peak hours were analyzed for the following conditions:

- Existing Conditions;
- Existing-Plus-Project Phases 1 through 3 Conditions; and
- Opening-Day With-Project Phases 1 through 3 Conditions.

Existing traffic volumes were determined by performing manual turning movement counts at the intersection of Avenue 12 and Road 39½ between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. on a weekday.

Generally accepted traffic engineering principles and methods were employed to estimate the number of trips expected to be generated by the Project, analyze the existing traffic conditions, and analyze the traffic conditions projected to occur after occupancy of the Project. Mini-warehouse facilities are typically located strategically near areas in need of such facilities. By adding mini-warehousing opportunities into the existing and developing residential fabric and thereby improving destination proximity, local-serving mini-warehousing development tends to shorten trips and reduce VMT. The office component of the mini-warehouse facility is ancillary to the use and does not generate additional office type trips. There are typically two employees who live on site; therefore, office and employee trips are expected to be on the order of 10 or fewer trips per day. Thus, it is suggested that the lead agency may presume the Project creates a less-than-significant transportation impact. The intersection of Avenue 12 and Road 39½ is currently operating at acceptable LOS during the p.m. peak hour but is operating at LOS E during the a.m. peak hour (specifically on the southbound approach). Peak-hour traffic signal warrants are not satisfied, and calculated 95th percentile queues are not excessive. The Project will not exacerbate the existing delays by a significant amount, and no new traffic issues will be caused by the Project.

(c) Less Than Significant Impact. The proposed facility will feature a gated entrance that can be accessed from Road 39 1/2, situated north of its intersection with Avenue 12. A Traffic Impact Study conducted for the project concluded that it will not significantly affect traffic or increase hazards due to its design features.

(d) No Impact. The project site plan includes a dedicated emergency fire access gate located at the northwest corner of the property off Road 39 ½. Access to the gate will comply with current Madera County Fire Protection requirements for emergency access.

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XVIII. TRIBAL CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
Would the project:				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Responses:

(a – i-ii) Less Than Significant Impact with Mitigation. Under the provisions of Assembly Bill (AB) 52, the County was required to provide notice of the preparation of this Initial Study to Native American tribes that had previously expressed interest in reviewing CEQA projects. Notices were sent on September 6, 2024, to the appropriate tribal government representatives. As of the preparation of this Initial Study, more than 30 days had passed since the County sent out the notification letters. One consultation request was received from Table Mountain Rancheria. However, despite numerous attempts by staff to coordinate a consultation, no response was received. Section XVIII of this Initial Study provides further discussion of tribal cultural resources and outreach.

Under the provisions of Senate Bill (SB) 18, the County was also required to provide notice of the preparation of this Initial Study to Native American tribes identified by the Native American Heritage Commission (NAHC). This is intended to avoid, protect, and mitigate impacts to cultural places when creating or amending General Plans, Specific Plans, and Community Plans. Notices were sent on October 9, 2024, to the relevant tribal government representatives. As of the preparation of this Initial Study, more than 60 days had passed since the County sent out the notification letters, and no consultation requests were received.

A record search was conducted for the project site area, with a 0.25-mile radius, through the Southern San Joaquin Valley Archaeological Information Center of the California Historical Resources Information System on October 9, 2023 (RS#23-411, Appendix 2).
There are no resources reported in the project site area or within a 0.25-mile radius. The project site has never been surveyed. No other surveys have been conducted in the project site vicinity (see Report list, Appendix 2).

Although no prehistoric sites were found during the survey, there is a slight possibility that a site may exist and be totally obscured by vegetation, fill, or other historic activities, leaving no surface evidence. Should artifacts or unusual amounts of stone, bone, or shell be uncovered during construction activities, an archeologist should be consulted for on-the-spot evaluation of the finding.

> ***(CUL MM-1)*** *In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area suspected to overlie adjacent remains until the Madera County Coroner has determined that the remains are not subject to any provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.*
>
> *If the Madera County Coroner determines that the remains are not subject to his or her authority and if the County Coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact, by telephone, the Native American Heritage Commission (NAHC).*
>
> *After notification, the NAHC will follow the procedures outlined in Public Resources Code Section 5097.98, that include notification of most likely descendants (MLDs), and recommendations for treatment of the remains. The MLDs will have 48 hours after notification by the NAHC to make their recommendations (PRC Section 5097.98).*

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	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS Would the project:				

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it had adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Responses:

(a–c) Less Than Significant Impact. The project will involve the construction of a new on-site wastewater treatment system to serve the proposed caretaker's residence and public restroom. No additional wastewater facilities are planned. Additionally, a new drainage basin will be constructed in the south-central portion of the site to manage the increased water runoff generated by the addition of impervious surfaces, parking areas, access roads, and buildings associated with the facility's construction. There are no electrical, gas, or telecommunications facilities proposed with this application.

The land was previously cropped with citrus orchards according to DWR Land Use maps for 2014 and 2016. Aerial photographs and DWR Land Use Maps show that the trees were removed by 2018 and the land has been fallow ever since. An agricultural well is located on-site but it will be abandoned and replaced with a domestic well. Water use during the historical cropping is estimated to be 20 acres x 2.9 acrefeet/acre = 58 acre-feet/year. The water demands for the proposed mini-storage facility will be significantly lower, as described below.

The project is expected to use approximately 2,437 gallons of water per day during its operation, which will be supplied by an on-site well. A water supply analysis was conducted by Provost and Prichard Consulting Group on June 5, 2024. Refer to Appendix C. The water demands will include domestic use by the resident manager, customer restrooms, on-site landscaping, and a water feature.

Water supply options for the project consist of groundwater, surface water, and connections to other local water systems. Initially, an on-site well will be utilized for the water supply, but future expansions to the Root Creek Water District and Madera Ranchos Water System could become viable options. No concerns regarding water supply were raised by any County departments.

Wastewater generated by the project will be managed using an on-site septic system. Onsite Wastewater Treatment Systems must adhere to Madera County Code (MCC) Title 13 and the Madera County Local Agency Management Program (LAMP).

(d-e) No Impact. The proposed facility is expected to meet all state and local standards, remain within the capacity of local infrastructure, and not hinder efforts to achieve solid waste reduction goals. Additionally, the project will need to comply with federal, state, and local regulations regarding solid waste reduction.

XX. WILDFIRE If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Responses:

(a, b, d) No Impact. The project site is not located in a CalFIRE state responsibility area (SRA) nor is it located in a local responsibility area (LRA) with a fire hazard severity designation. The project would not impair an adopted emergency response or evacuation plan, would not exacerbate wildfire risk and would not create conditions that would expose people or structures to post-fire risks.

(c) Less Than Significant Impact. The project will feature a fire suppression water storage system with a capacity of 180,000 gallons, along with a fire hydrant distribution system that meets the minimum standards of the California Fire Code. Fire hydrants will be installed according to code requirements. All parts of every building will be located within 400 feet, measured by drivable access, to a fire hydrant.

XIX. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Responses:

(a) Less Than Significant Impact with Mitigation. The analysis conducted in this Initial Study/Mitigated Negative Declaration results in a determination that the project, with the incorporation of mitigation measures, would have a less than significant impact on the environment. As a result, the mitigated project would not have the potential to substantially degrade the quality of the environment and would have a less than significant impact.

(b) Less Than Significant Impact. Implementation of the project would not result in significant cumulative impacts and all potential impacts would be reduced to less than significant with implementation of mitigation.

(c) Less Than Significant Impact. For the reasons discussed in Sections I through XX, above, the Project would not have the potential to result in environmental effects that would cause substantial adverse direct or indirect effects on human beings.

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Appendix

Appendix A
Air Quality and Greenhouse Gas Impact Assessment

Appendix B
Biological Resource Assessment

Appendix C
Memorandum Water Supply Analysis

Appendix D
Acoustic Analysis

Appendix E
Traffic Study

To:		From:	
	Karen Kendall Derrel's Mini Storage, Inc. Development Manager kkendall@derrels.com (559) 224-9901 Ext. 3028 (559) 347-4861 Cell		Johnson Johnson and Miller Air Quality Consulting Services Richard Miller, Air Quality and Climate Change Specialist rmiller.jjm.environmental@gmail.com

Derrel's Mini Storage Project—Madera County, CA

Date: April 20, 2024

Subject: Air Quality and Greenhouse Gas Emissions Technical Analysis

This Air Quality and Greenhouse Gas Emissions Analysis Report was prepared to evaluate whether the estimated criteria air pollutant, ozone precursor, toxic air contaminant (TAC), and/or greenhouse gas (GHG) emissions generated from construction and/or operation of the proposed Derrel's Mini Storage Project in Madera County, California would cause significant impacts to air resources in the project area. The respective analyses were conducted within the context of the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] § 21000, et seq.). The methodology follows the Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) prepared by the San Joaquin Valley Air Pollution Control District (SJVAPCD) for the quantification of emissions and evaluation of potential impacts to air resources[1] and the SJVAPCD's Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects under the California Environmental Quality Act.[2]

Project Location and Description

The Derrel's Mini Storage Project consists of the construction and development of a new mini storage facility with RV parking and on-site manager's office/residence. The project is located in Madera County, California at the northeast corner of Avenue 12 and Road 39 ½ on approximately 20.12 acres. The Assessor's Parcel Number (APN) associated with the project site is 049-022-017. The mini-storage buildings are proposed in phases as follows:

- Phase 1: 172,150 square feet
- Phase 2: 119,800 square feet
- Future Phase 3: 84,850 square feet

[1] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed February 20, 2024.

[2] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2009. Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. December 17. Website: https://www.valleyair.org/Programs/CCAP/12-17-09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf. Accessed February 20, 2024.

When Phases 1 and 2 are complete, the future area will be developed with 60,620 square feet of covered storage spaces for recreational vehicles (RV storage). Site access is proposed via a main driveway connecting to Road 39½ approximately 300 feet north of Avenue 12.

The project will also include site landscaping, paving, driveways and water/sewer construction. The proposed building shall comply with Madera County Code Title 13 as it relates to onsite domestic water and sewage disposal. The proposed domestic water well shall be constructed to Public Water Well Standards. Based on the operational statement, this facility will be classified as a public water system once it meets the states definition. An Engineered Design Onsite Wastewater Treatment System (OWTS) will be required for review and approval. A water system capable of meeting the minimum required California Fire Code Hydrant flow rate at the required duration will be required to supply the project site.

A summary of the site data, as listed in the project site plan (see Appendix A), is provided below.

Building Square Footage

- Storage
  - Phase 1: 172,825 square feet
  - Phase 2: 119,800 square feet
  - Future: 84,850 square feet
- Office: 804 square feet
- Residence 1,327 square feet + garage totaling 391 square feet

RV Square Footage

- Carports/enclosed: 60,620 square feet

Land Acreage

- Approximately 20.12 gross acres

Note: Future storage and carport/enclosed RV storage overlap same land area; future storage buildings will be constructed, as needed, after removal of overlapping RV storage.

The project site as it currently exists is vacant with no existing structures and requires no removal of hardscape.

An aerial view of the project site and the project site plan are included as part of Attachment A.

Modeling Parameters and Assumptions

The following modeling parameters and assumptions were used to generate criteria air pollutant (including precursors), Toxic Air Contaminants (TACs), and greenhouse gas (GHG) emissions for the proposed project.

Air Pollutants and GHGs Assessed

Criteria Pollutants Assessed

The following criteria air pollutants were assessed in this analysis: reactive organic gases (ROG), oxides of nitrogen (NO_X), carbon monoxide (CO), sulfur oxides (SO_X), particulate matter less than 10 microns in diameter (PM_{10}), and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$).

Note that the proposed project would emit ozone precursors ROG and NO_X. However, the proposed project would not directly emit ozone since it is formed in the atmosphere during the photochemical reaction of ozone precursors.

The project does not contain sources that would produce substantial quantities of SO_X emissions during construction or operation. Modeling conducted for the project is provided in Attachment A and includes SO_2 emission estimates. No further analysis of SO_2 is required.

GHGs Assessed

This analysis was restricted to GHGs identified by AB 32, which include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). The proposed project would generate a variety of GHGs, including several defined by AB 32 such as CO_2, CH_4, and N_2O.

Certain GHGs defined by AB 32 would not be emitted by the Derrel's Mini Storage project. HFCs, PFCs, SF_6, and NF_3 are typically used in industrial applications, none of which would be used for typical mini storage operations. Therefore, it is not anticipated that the proposed project would emit those GHGs.

GHG emissions associated with the proposed project construction, as well as future operations were estimated using CO_2 equivalent (CO_2e) emissions as a proxy for all GHG emissions. Construction GHG emissions were amortized over the lifetime of the proposed project. In order to obtain the CO_2e, an individual GHG is multiplied by its Global Warming Potential (GWP). The GWP designates on a pound for pound basis the potency of the GHG compared to CO_2.

Toxic Air Containments Assessed

Diesel particulate matter (DPM)

Studies indicate that diesel particulate matter (DPM) poses the greatest health risk among airborne TACs. The California Air Resources Board (CARB) conducted a 10-year research program that demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic long-term health risk.

DPM is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases: gas and particle. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, and polycyclic aromatic hydrocarbons. The particle phase also has many different types of particles that can be classified by size or composition. The size of diesel particulates that are of greatest health concern are those that are in the categories of fine and ultra-fine particles. The composition of these fine and ultra-fine particles may be composed of elemental carbon with adsorbed compounds such as organic compounds, sulfate, nitrate, metals, and other trace elements. Diesel exhaust is emitted from a broad range of diesel engines, such as the on-road diesel engines of trucks, buses, and cars, and off-road diesel engines that include locomotives, marine vessels, and heavy-duty equipment.[3]

For the purposes of this analysis, DPM exhaust emissions are represented as particulate matter that is 10 micrometers in diameter and smaller (PM_{10}).

Asbestos

Asbestos is a fibrous mineral that both naturally occurs in ultramafic rock (a rock type commonly found in California) and is used as a processed component of building materials. Because asbestos has been proven to cause a number of disabling and fatal diseases, such as asbestosis and lung cancer, it is strictly regulated either based on its natural widespread occurrence or in its use as a building material. In the initial Asbestos National Emission Standards for Hazardous Air Pollutants rule promulgated in 1973, a distinction was made between building materials that would readily release asbestos fibers when damaged or disturbed (friable) and those materials that were unlikely to result in significant fiber release (non-friable). The U.S. Environmental Protection Agency (EPA) has since determined that, when severely damaged, otherwise non-friable materials can release significant amounts of asbestos fibers. Asbestos has been banned from many building materials under the Toxic Substances Control Act, the Clean Air Act, and the Consumer Product Safety Act. Naturally occurring asbestos (NOA) is known to occur in many parts of California and is commonly associated with ultramafic or serpentinite rock.

Model Selection

Criteria Pollutants and GHG Emissions—Model Selection

The California Emissions Estimator Model (CalEEMod) is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects. CalEEMod quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Further, CalEEMod identifies mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user.

CalEEMod was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California Air Districts. Default data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California Air Districts to account for local requirements and conditions.

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3 California Air Resources Board (CARB). 2019. Overview: Diesel Exhaust and Health. Website: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed February 21, 2024.

CalEEMod is a comprehensive tool for quantifying air quality impacts from land use projects located throughout California. The model can be used for a variety of situations where an air quality analysis is necessary or desirable such as preparing CEQA or National Environmental Policy Act documents, conducting pre-project planning, and, verifying compliance with local air quality rules and regulations, etc.

The Derrel's Mini Storage project is located within Madera County, within the San Joaquin Valley Air Basin. The modeling follows SJVAPCD guidance, where applicable, from its GAMAQI. The models used in this analysis are summarized as follows:

- Construction emissions: CalEEMod, version 2022.1 (specifically, 2022.1.1.22)
- Operational emissions: CalEEMod, version 2022.1 (specifically, 2022.1.1.22)
- Operational TAC emissions: EMission FACtor (EMFAC) 2021
- Dispersion Model: American Meteorological Society/ Environmental Protection Agency Regulatory Model (AERMOD), version 23132
- Health Risk Metric Calculations: Hot Spots Analysis & Reporting Program 2 (HARP2)

Construction DPM emissions (represented as PM_{10} exhaust) were estimated using CalEEMod version 2022.1.

Toxic Air Containments—Model Selection and Parameters

An air dispersion model is a mathematical formulation used to estimate the air quality impacts at specific locations (receptors) surrounding a source of emissions given the rate of emissions and prevailing meteorological conditions. The air dispersion model applied in this assessment was the U.S. EPA AERMOD (version 23132) air dispersion model. Specifically, AERMOD was used to estimate levels of air emissions at sensitive receptor locations from potential sources of project-generated TACs during the construction period. The use of AERMOD provides a refined methodology for estimating construction impacts by utilizing long-term, measured representative meteorological data for the project site and a representative construction schedule.

The modeling analysis also considered the spatial distribution and elevation of each emitting source in relation to the sensitive receptors. Direction-dependent calculations were obtained by identifying the Universal Transverse Mercator (UTM) coordinates for each source location. Terrain elevations were obtained for the project site using the AERMAP model, the AERMOD terrain data pre-processor. The air dispersion model assessment used meteorological data from the Madera Station (Station 93242). The meteorological data used was preprocessed for use with AERMOD by SJVAPCD and included data for the years 2009 to 2011; all years were used in the assessment. To evaluate the proposed project's localized impacts at the point of maximum impact, all receptors were placed within the breathing zone at 1.2 meters above ground level.

For the construction period, construction emissions were assumed to be distributed over the project site with a working schedule of eight hours per day and five days per week. Emissions were adjusted by a factor of 4.2 to convert for use with a 24-hour-per-day, 365 day-per-year averaging period. To assess impacts during construction, project operations were assessed assuming a 24-hour-per-day, and seven day-per-week schedule. Detailed parameters and complete calculations are contained in Attachment B.

Assumptions

<u>*Construction Modeling Assumptions*</u>

Schedule

The proposed project would require various tasks including site preparation, grading, building construction, paving, and architectural coating (painting). Table 1 shows the construction schedule used to estimate emissions for the purposes of assessing air quality impacts. The construction schedule utilized in the analysis represents a "worst-case" analysis scenario since emission factors for construction equipment decrease as the analysis year increases, due to improvements in technology and more stringent regulatory requirements. Therefore, construction emissions would decrease if the construction schedule moved to later years or is phased over multiple years. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required per CEQA guidelines. The site-specific construction fleet may vary due to specific project needs at the time of construction.

Table 1: Project Construction Schedule

Construction Task	Start Date	End Date	Number of Days per Week	Number of Workdays per Phase
Madera County Derrel's Mini Storage – Phases 1 & 2 + RV Storage				
Site Preparation	6/1/2025	6/13/2025	5	10
Grading	6/14/2025	8/1/2025	5	35
Paving	8/2/2025	8/29/2025	5	20
Building Construction	8/30/2025	1/29/2027	5	370
Architectural Coating	1/30/2027	2/26/2027	5	20
Madera County Derrel's Mini Storage – Phase 3 and Removal of RV Storage				
Demolition (Removal of RV Storage)	2/27/2027	3/27/2027	5	20
Site Preparation	3/28/2027	3/30/2027	5	2
Grading	3/31/2027	4/5/2027	5	4
Building Construction	4/6/2027	1/11/2028	5	200
Paving	1/12/2028	1/26/2028	5	10
Architectural Coating	1/27/2028	2/10/2028	5	10
Source: Modeling Assumptions and CalEEMod Output Files (Attachment A).				

Equipment

The off-road equipment fleet for construction were generated using default values from CalEEMod. CalEEMod generates construction fleets for construction activities based on the size of the construction areas. Construction equipment for each construction activity is shown as part of Appendix A.

Vehicles Trips

Table 2 provides a summary of the construction-related vehicle trips. CalEEMod default values were used to estimate the number of construction-related vehicle trips and were supplemented with additional purpose-based trips to avoid underestimating emissions from on-road vehicles anticipated during the construction period.

The default values for hauling trips are based on the assumption that a truck can haul 20 tons (or 16 cubic yards) of material per load. If one load of material is delivered, CalEEMod assumes that one haul truck importing material will also have a return trip with an empty truck (e.g., 2 one-way trips).

The fleet mix for worker trips is light-duty passenger vehicles to light-duty trucks. The vendor trips fleet mix is composed of a mixture of medium and heavy-duty diesel trucks. The hauling trips were assumed to be 100 percent heavy-duty diesel truck trips. CalEEMod default trip lengths for a project in Madera County and a rural setting were used for the worker (7.1 miles), vendor (12.8 miles), and hauling (20 miles) trips.

Table 2: Construction Vehicle Trips

Construction Task	Worker Trips per Day	Vendor Trips per Day	Haul Trips per Day
Madera County Derrel's Mini Storage - Phases 1 & 2 + RV Storage			
Site Preparation	17.50	10.00	0.00
Grading	20.00	10.00	11.31
Paving	15.00	10.00	0.00
Building Construction	148.98	58.14	0.00
Architectural Coating	29.80	10.00	0.00
Madera County Derrel's Mini Storage – Phase 3 and Removal of RV Storage			
Demolition (Removal of RV Storage)	12.50	10.00	34.90
Site Preparation	7.50	10.00	0.00
Grading	10.00	10.00	0.00
Building Construction	35.64	13.91	0.00
Paving	12.50	10.00	0.00
Architectural Coating	7.13	10.00	0.00

Notes:
Additional vendor trips were added to account for delivery of materials. CalEEMod default trips account for miscellaneous trips in the building construction phases, which were retained in the modeling.
Cut and fill estimates: The analysis assumes 2,000 cubic yards of cut would be exported and 2,000 cubic yards of fill would be imported during the grading phase of the "Phases 1 & 2 + RV Storage" scenario.
Source: Modeling Assumptions and CalEEMod Output Files (Attachment A).

Operational Modeling Assumptions

Operational emissions are those emissions that occur during operation of the proposed project. The sources are summarized below.

Motor Vehicles

Motor vehicle emissions refer to exhaust and road dust emissions from the automobiles that would travel to and from the proposed project site. Assumptions were based on the accompanying traffic study completed for the project. Modeling was completed using the reported number of average daily trips from the project-specific traffic report. As described in the traffic study prepared for the proposed project, the Derrel's Mini Storage project is expected to generate 438 average daily trips under the "Phases 1 and 2 Developed" scenario and 548 average daily trips under the "Phases 1 through 3 Developed" scenario.[4] Please see Attachment A for detailed assumptions.

Trip Lengths

The CalEEMod default round trip lengths for a rural setting in Madera County were used in this analysis. The default trip lengths are appropriate for the truck trip lengths, as most trucks would be passing by on their way to another destination related to the movement of goods. Therefore, the default trip lengths represent a conservative estimate for truck trip lengths and would not underestimate associated emissions. Trip lengths are for primary trips. Trip purposes are primary, diverted, and pass-by trips. Diverted trips take a slightly different path than a primary trip. The CalEEMod defaults for percentages of primary, diverted, and pass-by trips were used in the analysis.

Vehicle Fleet Mix

The vehicle fleet mix is defined as the mix of motor vehicle classes active during the operation of the proposed project. Emission factors are assigned to the expected vehicle mix as a function of vehicle class, speed, and fuel use (gasoline- and diesel-powered vehicles). The default vehicle fleet mixes were used for Madera County.

Area Sources

Consumer Products

Consumer products are various solvents used in non-industrial applications, which emit VOCs during their product use. "Consumer Product" means a chemically formulated product used by household and institutional consumers, including but not limited to: detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden; disinfectants; sanitizers; aerosol paints; and automotive specialty products. It does not include other paint products, furniture coatings, or architectural coatings. CalEEMod includes default consumer product use rates based on building square footage. The default emission factors developed for CalEEMod were used for consumer products were used.

Architectural Coatings (Painting)

Paints release VOC emissions. The Derrel's Mini Storage Project buildings included as part of the project would be repainted on occasion. CalEEMod defaults were used for this purpose.

Landscaping Emissions

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4 Peters Engineering Group, A California Corporation. 2024. Traffic Study for the Proposed Derrel's Mini Storage Northeast of the Intersection of Avenue 12 and Road 39½, Madera County, California. March 13, Revised April 15.

CalEEMod estimates a total of 180 days for which landscaping equipment would be used to estimate potential emissions for the proposed project.

Indirect Emissions

For GHG emissions, CalEEMod contains calculations to estimate indirect GHG emissions. Indirect emissions are emissions where the location of consumption or activity is different from where actual emissions are generated. For example, electricity would be consumed at the proposed project site; however, emissions associated with producing that electricity are generated off-site at a power plant. Since the electricity can vary greatly based on locations, the user should override these values if they have more specific information regarding their specific water supply and treatment.

Energy Use

The emissions associated with the building electricity and natural gas usage (non-hearth) were estimated based on the land use type and size.

The Renewables Portfolio Standard (RPS) took effect in 2020. The Renewable Electricity Standard requires that electricity providers include a minimum of 33 percent renewable energy in their portfolios by the year 2020. The utilities in California will be required to increase the use of renewable energy sources to 60 percent by 2030.

Other Indirect Emissions (Water Use, Wastewater Use, and Solid Waste)

CalEEMod includes calculations for indirect GHG emissions for electricity consumption, water consumption, and solid waste disposal. For water consumption, CalEEMod calculates embedded energy (e.g., treatment, conveyance, distribution) associated with providing each gallon of potable water to the project. For solid waste disposal, GHG emissions are associated with the disposal of solid waste generated by the proposed project into landfills. CalEEMod default data were used for inputs associated with solid waste.

AIR QUALITY

Environmental Setting

Air quality impacts are both local and regional. Regional and local air quality is impacted by topography, dominant airflows, atmospheric inversions, location, and season. The project is located in Madera County. The project site and Madera County are in the San Joaquin Valley Air Basin (Air Basin or SJV Air Basin), which experiences some of the most challenging environmental conditions for air quality in the nation. The following section describes these conditions as they pertain to the Air Basin. The information in this section is primarily from the SJVAPCD's GAMAQI.[5]

Topography

The topography of a region is important for air quality because mountains can block airflow that would help disperse pollutants and can channel air from upwind areas that transports pollutants to downwind areas. The SJVAPCD covers the entirety of the SJV Air Basin. The Air Basin is generally shaped like a bowl. It is open in the north and is surrounded by mountain ranges on all other sides. The Sierra Nevada mountains are along the eastern boundary (8,000 to 14,000 feet in elevation), the Coast Ranges are along the western boundary (3,000 feet in elevation), and the Tehachapi Mountains are along the southern boundary (6,000 to 8,000 feet in elevation).

Climate

The climate is important for air quality because of differences in the atmosphere's ability to trap pollutants close to the ground, which creates adverse air quality; inversely, the atmosphere's ability to rapidly disperse pollutants over a wide area prevents high concentrations from accumulating under different climatic conditions. The SJV Air Basin has an "inland Mediterranean" climate and is characterized by long, hot, dry summers and short, foggy winters. Sunlight can be a catalyst in the formation of some air pollutants (such as ozone); the SJV Air Basin averages over 260 sunny days per year.

Inversion layers are significant in determining pollutant concentrations. Concentration levels can be related to the amount of mixing space below the inversion. Temperature inversions that occur on the summer days are usually encountered 2,000 to 2,500 feet above the valley floor. In winter months, overnight inversions occur 500 to 1,500 feet above the valley floor.

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the SJV Air Basin form natural horizontal barriers to the dispersion of air contaminants. The wind generally flows south-southeast through the valley, through the Tehachapi Pass and into the Mojave Desert Air Basin portion of Kern County. As the wind moves through the SJV Air Basin, it mixes with the air pollution generated locally, generally transporting air pollutants from the north to the south in the summer and in a reverse flow in the winter.

The winds and unstable air conditions experienced during the passage of winter storms result in periods of low pollutant concentrations and excellent visibility. Between winter storms, high

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[5] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. March 19. Website: https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf. Accessed March 4, 2024.

pressure and light winds allow cold moist air to pool on the San Joaquin Valley floor. This creates strong, low-level temperature inversions and very stable air conditions, which can lead to Tule fog. Wintertime conditions favorable to fog formation are also conditions favorable to high concentrations of $PM_{2.5}$ and PM_{10}.

Criteria Air Pollutants

The Federal Clean Air Act (FCAA) establishes the framework for modern air pollution control. The FCAA, enacted in 1970 and amended in 1990, directs the U.S. EPA to establish ambient air quality standards. These standards are divided into primary and secondary standards. The primary standards are set to protect human health, and the secondary standards are set to protect environmental values, such as plant and animal life. The FCAA requires the EPA to set National Ambient Air Quality Standards for the six criteria air pollutants. These pollutants include particulate matter (PM), ground-level ozone, carbon monoxide (CO), sulfur oxides, nitrogen oxides, and lead.

Toxic Air Contaminants

A toxic air contaminant (TAC) is an air pollutant not included in the California Ambient Air Quality Standards, but TACs are considered hazardous to human health. Toxic air contaminants are defined by the California Air Resources Board (CARB) as those pollutants that, "may cause or contribute to an increase in deaths or in serious illness, or which may pose a present or potential hazard to human health."

The health effects associated with TACs are generally assessed locally rather than regionally. Toxic air contaminants can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage; TACs can also cause short-term acute effects such as eye watering, respiratory irritation, running nose, throat pain, and headaches. For evaluation purposes, TACs are separated into carcinogens and noncarcinogens. Carcinogens are assumed to have no safe threshold below which health impacts would not occur, and the cancer risk is expressed as excess cancer cases per one million exposed individuals (typically over a lifetime of exposure).

TACs of concern assessed in this analysis include asbestos and DPM.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics.

Air Quality Standards

The Clean Air Act requires states to develop a general plan to attain and maintain the standards in all areas of the country and a specific plan to attain the standards for each area designated nonattainment. These plans, known as State Implementation Plans or SIPs, are developed by state and local air quality management agencies and submitted to EPA for approval.

The SIP for the State of California is administered by the CARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's SIP incorporates individual federal attainment plans for each regional air district. SIPs are prepared by the regional air district and sent to CARB to be approved and incorporated into the California SIP. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.

The CARB also administers the California Ambient Air Quality Standards (CAAQS) for the 10 air pollutants designated in the California Clean Air Act. The 10 state air pollutants include the six federal criteria pollutant standards listed above as well as visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. The federal and state ambient air quality standards are summarized in Table 3.

Table 3: California and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary
Ozone	1 Hour	0.09 ppm (180 μg/m^3)	—	Same as Primary Standard
	8 Hour	0.070 ppm (137 μg/m^3)	0.070ppm (137 μg/m^3)	
Respirable Particulate Matter	24 Hour	50 μg/m^3	150 μg/m3	Same as Primary Standard
	Annual Arithmetic Mean	20 μg/m^3	—	
Fine Particulate Matter	24 Hour	—	35 μg/m^3	Same as Primary Standard
	Annual Arithmetic Mean	12 μg/m^3	12 μg/m^3	
Carbon Monoxide	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	—
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	—
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	—	—
Nitrogen Dioxide	1 Hour	0.18 ppm (339 μg/m^3)	100 ppb (188 μg/m^3)	—
	Annual Arithmetic Mean	0.030 ppm (57 μg/m^3)	0.053 ppm (100 μg/m^3)	Same as Primary Standard
Sulfur Dioxide	1 Hour	0.25 ppm (655 μg/m^3)	75 ppb (196 μg/m^3)	—
	3 Hour	—	—	0.5 ppm (1300 μg/m^3)
	24 Hour	0.04 ppm (105 μg/m^3)	0.14 ppm (for certain areas)	—
	Annual Arithmetic Mean	—	0.030 ppm (for certain areas)	—

Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary
Lead	30-Day Average	1.5 μg/m^3	—	—
	Calendar Quarter	—	1.5 μg/m^3	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 μg/m^3	
Visibility-Reducing Particles	8 Hour	See Footnote 1	No National Standards	
Sulfates	24 Hour	25 μg/m^3		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m^3)		
Vinyl Chloride	24 Hour	0.01 ppm (26 μg/m^3)		

Notes:
1 - In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.
μg/m3 =micrograms per cubic meter
CARB = California Air Resources Board
mg/m3 = milligrams per cubic meter
ppm = parts per million
Source: California Air Resources Board (CARB). 2017. Air Quality Standards. Website: https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status. Accessed February 26, 2024.

Federal and state air quality laws require identification of areas not meeting the ambient air quality standards. These areas must develop regional air quality plans to eventually attain the standards. The SJV Air Basin is designated nonattainment for ozone, PM_{10}, and $PM_{2.5}$.[6]

Thresholds of Significance

Project-level Thresholds

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine if a project would have a significant impact on air quality, the type, level, and impact of emissions generated by the proposed project must be evaluated.

This analysis uses the air quality significance thresholds contained in Appendix G of the CEQA Guidelines, effective December 28, 2018. A significant impact would occur if the proposed project would:

a) Conflict with or obstruct implementation of the applicable air quality plan.

[6] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2017. Ambient Air Quality Standards & Valley Attainment Status. Website: https://www.valleyair.org/aqinfo/attainment.htm. Accessed February 26, 2024.

b) 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.

c) Expose sensitive receptors to substantial pollutant concentrations.

d) Create objectionable odors affecting a substantial number of people.

The County of Madera has not established specific CEQA significance thresholds for air quality resources. Where available guidance provided by the applicable air district can be used to make significance determinations for the CEQA questions listed above. While the final determination of whether a project is significant is within the purview of the Lead Agency pursuant to Section 15064(b) of the CEQA Guidelines, the SJVAPCD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions in accordance with the Appendix G requirements. If a Lead Agency finds that a project has the potential to exceed these air pollution thresholds, according to the SJVAPCD, the project should be considered to have significant air quality impacts.

Air pollutant emissions have regional effects and localized effects. This analysis assesses the regional effects of the project's criteria pollutant emissions in comparison to SJVAPCD thresholds of significance for short-term construction activities and long-term operation of the project. Localized emissions from project construction and operation are also assessed using concentration-based thresholds that determine if the project would result in a localized exceedance of any ambient air quality standards or would make a cumulatively considerable contribution to an existing exceedance.

The primary pollutants of concern during project construction and operation are ROG, NO_X, PM_{10}, and $PM_{2.5}$. The SJVAPCD GAMAQI adopted in 2015 contains thresholds for ROG and NO_X; SO_X, CO, PM_{10}, and $PM_{2.5}$.

Ozone is a secondary pollutant that can be formed miles away from the source of emissions through reactions of ROG and NO_X emissions in the presence of sunlight. Therefore, ROG and NO_x are termed ozone precursors. The SJVAB often exceeds the state and national ozone standards. Therefore, if the project emits a substantial quantity of ozone precursors, the project may contribute to an exceedance of the ozone standard. The SJVAB also exceeds air quality standards for PM_{10}, and $PM_{2.5}$; therefore, substantial project emissions may contribute to an exceedance for these pollutants.

The SJVAPCD has adopted significance thresholds for construction-related and operational emissions. These thresholds will be identified and addressed in the appropriate section of this document.

Project construction would involve the use of diesel-fueled vehicles and equipment that emit DPM, which is considered a TAC. Once operational, some diesel-fueled vehicles would access the project site. The following project-specific health risk significance thresholds are applied in this analysis:

- Maximum Incremental Cancer Risk: >=20 in 1 million.

- Hazard Index (project increment) >=1.0.

Fugitive Dust

Construction

Fugitive dust would be generated from site grading and other earth-moving activities. Most of this fugitive dust would remain localized and would be deposited near the project site. However, the potential for impacts from fugitive dust exists unless control measures are implemented to reduce the emissions from the project site. Therefore, adherence to Regulation VIII would be required during construction of the proposed project. Regulation VIII would require fugitive dust control measures that are consistent with best management practices (BMPs) established by the SJVAPCD to reduce the proposed project's construction-generated fugitive dust impacts to a less than significant level.

The SJVAPCD (SJVAPCD or District) adopted Regulation VIII in 1993 and its most recent amendments became effective on October 1, 2004. This is a basic summary of the regulation's requirements as they apply to construction sites. These regulations affect all workers at a regulated construction site, including everyone from the landowner to the subcontractors. Violations of Regulation VIII are subject to enforcement action including fines.[7]

Visible Dust Emissions may not exceed 20 percent opacity during periods when soil is being disturbed by equipment or by wind at any time. Visible Dust Emissions opacity of 20 percent means dust that would obstruct an observer's view of an object by 20 percent. District inspectors are state certified to evaluate visible emissions. Dust control may be achieved by applying water before/during earthwork and onto unpaved traffic areas, phasing work to limit dust, and setting up wind fences to limit windblown dust.

Soil Stabilization is required at regulated construction sites after normal working hours and on weekends and holidays. This requirement also applies to inactive construction areas such as phased projects where disturbed land is left unattended. Applying water to form a visible crust on the soil and restricting vehicle access are often effective for short-term stabilization of disturbed surface areas. Long-term methods including applying dust suppressants and establishing vegetative cover.

Carryout and Trackout occur when materials from emptied or loaded vehicles falls onto a paved surface or shoulder of a public road or when materials adhere to vehicle tires and are deposited onto a paved surface or shoulder of a public road. Should either occur, the material must be cleaned up at least daily, and immediately if it extends more than 50 feet from the exit point onto a paved road. The appropriate clean-up methods require the complete removal and cleanup of mud and dirt from the paved surface and shoulder. Using a blower device or dry sweeping with any mechanical device other than a PM10-efficient street sweeper is a violation. Larger construction sites, or sites with a high amount of traffic on one or more days, must prevent carryout and trackout from occurring by installing gravel pads, grizzlies, wheel washers, paved interior roads, or a combination thereof at each exit point from the site. In many cases,

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7 San Joaquin Valley Air Pollution Control District (SJVAPCD). 2007. Compliance Assistance Bulletin. Website: http://www.valleyair.org/busind/comply/pm10/forms/RegVIIICAB.pdf. Accessed February 26, 2024.

cleaning up trackout with water is also prohibited as it may lead to plugged storm drains. Prevention is the best method.

Unpaved Access and Haul Roads, as well as unpaved vehicle and equipment traffic areas at construction sites must have dust control. Speed limit signs limiting vehicle speed to 15 mph or less at construction sites must be posted every 500 feet on uncontrolled and unpaved roads.

Storage Piles and Bulk Materials have handling, storage, and transportation requirements that include applying water when handling materials, wetting or covering stored materials, and installing wind barriers to limit visible dust emissions. Also, limiting vehicle speeds, loading haul trucks with a freeboard of six inches or greater along with applying water to the top of the load, and covering the cargo compartments are effective measures for reducing visible dust emissions and carryout from vehicles transporting bulk materials.

Dust Control Plans identify the dust sources and describe the dust control measures that will be implemented before, during, and after any dust generating activity for the duration of the project. Owners or operators are required to submit plans to the SJVAPCD at least 30 days prior to commencing the work for the following:

- Residential developments of ten or more acres of disturbed surface area.
- Non-residential developments of five or more acres of disturbed surface area.
- The relocation of more than 2,500 cubic yards per day of materials on at least three days.

Operations may not commence until the SJAVPCD has approved the Dust Control Plan. A copy of the plan must be on site and available to workers and District employees. All work on the site is subject to the requirements of the approved dust control plan. A failure to abide by the plan by anyone on site may be subject to enforcement action.

Record Keeping is required to document compliance with the rules and must be kept for each day any dust control measure is used. The SJVAPCD has developed record forms for water application, street sweeping, and "permanent" controls such as applying long term dust palliatives, vegetation, ground cover materials, paving, or other durable materials. Records must be kept for one year after the end of dust generating activities (Title V sources must keep records for five years).

Exemptions exist for several activities. Those occurring above 3,000 feet in elevation are exempt from all Regulation VIII requirements. Further, Rule 8021 – Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities exempts the following construction and earthmoving activities:

- Blasting activities permitted by California Division of Industrial Safety.
- Maintenance or remodeling of existing buildings provided the addition is less than 50% of the size of the existing building or less than 10,000 square feet (due to asbestos concerns, contact the SJVAPCD at least two weeks ahead of time).
- Additions to single family dwellings.
- The disking of weeds and vegetation for fire prevention on sites smaller than ½ acre.

- Spreading of daily landfill cover to preserve public health and safety and to comply with California Integrated Waste Management Board requirements.

Nuisances are prohibited at all times because District Rule 4102 – Nuisance applies to all construction sources of fugitive dust, whether or not they are exempt from Regulation VIII. It is important to monitor dust-generating activities and implement appropriate dust control measures to limit the public's exposure to fugitive dust.

Environmental Impact Analysis

This section discusses potential impacts related to air quality associated with the proposed project and provides mitigation measures where necessary.

Impact AIR-1 Conflict with or obstruct implementation of the applicable air quality plan?

Impact Analysis

The CEQA Guidelines indicate that a significant impact would occur if the project would conflict with or obstruct implementation of the applicable air quality plan. The GAMAQI indicates that projects that do not exceed SJVAPCD regional criteria pollutant emissions quantitative thresholds would not conflict with or obstruct the applicable air quality plan (AQP). An additional criterion regarding the project's implementation of control measures was assessed to provide further evidence of the project's consistency with current AQPs. This document proposes the following criteria for determining project consistency with the current AQPs:

1. Will the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs? This measure is determined by comparison to the regional thresholds identified by the District for Regional Air Pollutants.

2. Will the project comply with applicable control measures in the AQPs? The primary control measures applicable to development projects include Regulation VIII—Fugitive PM_{10} Prohibitions and Rule 9510 Indirect Source Review.

Contribution to Air Quality Violations

A measure for determining if the project is consistent with the air quality plans is if the project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plans. Regional air quality impacts and attainment of standards are the result of the cumulative impacts of all emission sources within the air basin. Individual projects are generally not large enough to contribute measurably to an existing violation of air quality standards. Therefore, the cumulative impact of the project is based on its cumulative contribution. Because of the region's nonattainment status for ozone, $PM_{2.5}$, and PM_{10}—if project-generated emissions of either of the ozone precursor pollutants (ROG and NO_X), PM_{10}, or $PM_{2.5}$ would exceed the SJVAPCD's significance thresholds—then the project would be considered to contribute to violations of the applicable standards and conflict with the attainment plans.

As shown in Table 4 under Impact AIR-2 below, the project's construction regional emissions would not exceed SJVAPCD's regional criteria pollutant emissions quantitative thresholds. Similarly, emissions of ROG, NO_X, CO, SO_X, PM_{10} or $PM_{2.5}$ during operations would not exceed any applicable threshold of significance in either buildout scenario analyzed (see Table 5). Therefore, regarding this criterion, the project would be considered less than significant.

Compliance with Applicable Control Measures

SJVAPCD's AQPs contain a number of control measures, which are enforceable requirements through the adoption of rules and regulations. A description of rules and regulations that apply to this project is provided below.

> **SJVAPCD Rule 9510—Indirect Source Review (ISR)** is a control measure in the 2006 PM_{10} Plan that requires NO_X and PM_{10} emission reductions from development projects in the San Joaquin Valley. The NO_X emission reductions help reduce the secondary formation of PM_{10} in the atmosphere (primarily ammonium nitrate and ammonium sulfate) and also reduce the formation of ozone. Reductions in directly emitted PM_{10} reduce particles such as dust, soot, and aerosols. Rule 9510 is also a control measure in the 2016 Plan for the 2008 8-Hour Ozone Standard. Developers of projects subject to Rule 9510 must reduce emissions occurring during construction and operational phases through on-site measures or pay off-site mitigation fees. The proposed project would be subject to Rule 9510.
>
> **Regulation VIII—Fugitive** PM_{10} **Prohibitions** is a control measure that is one main strategies from the 2006 PM_{10} for reducing the PM_{10} emissions that are part of fugitive dust. Residential projects over 10 acres and non-residential projects over 5 acres are required to file a Dust Control Plan (DCP) containing dust control practices sufficient to comply with Regulation VIII. The project will be required to comply with Regulation VIII and would implement dust control measures during the construction period.

Other control measures that apply to the project are Rule 4641—Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operation that requires reductions in VOC emissions during paving and Rule 4601—Architectural Coatings that limits the VOC content of all types of paints and coatings sold in the San Joaquin Valley. These measures apply at the point of sale of the asphalt and the coatings, so project compliance is ensured without additional mitigation measures.

> **Rule 2201—New and Modified Stationary Source Review Rule** requires the review of new and modified Stationary Sources of air pollution and to provide mechanisms including emission trade-offs by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of Ambient Air Quality Standards. It is common for components of a project to be required to obtain permits and abide by associated regulations set forth by Rule 2201; however, no components of the project as currently planned would require permitting.

The project would comply with all applicable SJVAPCD rules and regulations. Therefore, the proposed project would not conflict with or obstruct implementation of the applicable air quality attainment plan under this criterion.

Conclusion

The project would comply with all applicable CARB and SJVAPCD rules and regulations. Therefore, the project complies with this criterion and would not conflict with or obstruct implementation of the applicable air quality attainment plan with regards to this criterion.

The project's regional operational emissions would not exceed any applicable SJVAPCD prior to the incorporation of mitigation measures (see Impact AIR-2). Therefore, the project would be considered consistent with the existing AQPs.

Based on the findings above, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. The impact would be less than significant.

Level of Significance Before Mitigation
Less than significant.

Mitigation Measures
No mitigation measures are necessary.

Impact AIR-2 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?

Impact Analysis

To result in a less than significant impact, the following criteria must be true:

1. Regional analysis: emissions of nonattainment pollutants must be below the SJVAPCD's regional significance thresholds. This is an approach recommended by the District in its GAMAQI.
2. Summary of projections: the project must be consistent with current air quality attainment plans including control measures and regulations. This is an approach consistent with Section 15130(b) of the CEQA Guidelines.
3. Cumulative health impacts: the project must result in less than significant cumulative health effects from the nonattainment pollutants. This approach correlates the significance of the regional analysis with health effects, consistent with the court decision, *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1219-20.

Regional Emissions

Air pollutant emissions have both regional and localized effects. This analysis assesses the regional effects of the project's criteria pollutant emissions in comparison to SJVAPCD thresholds of significance for short-term construction activities and long-term operation of the project. Localized emissions from project construction and operation are assessed under Impact AIR-3—Sensitive Receptors using concentration-based thresholds that determine if the project would result in a localized exceedance of any ambient air quality standards or would make a cumulatively considerable contribution to an existing exceedance.

The primary pollutants of concern during project construction and operation are ROG, NO_X, PM_{10}, and $PM_{2.5}$. The SJVAPCD GAMAQI adopted in 2015 contains thresholds for CO, NO_X, ROG, SO_X, PM_{10}, and $PM_{2.5}$.

Ozone is a secondary pollutant that can be formed miles from the source of emissions, through reactions of ROG and NO_X emissions in the presence of sunlight. Therefore, ROG and NO_X are termed ozone precursors. The Air Basin often exceeds the state and national ozone standards. Therefore, if the project emits a substantial quantity of ozone precursors, the project may contribute to an exceedance of the ozone standard. The Air Basin also exceeds air quality standards for PM_{10}, and $PM_{2.5}$; therefore, substantial project emissions may contribute to an exceedance for these pollutants. The SJVAPCD's annual emission significance thresholds used for the project define the substantial contribution for both operational and construction emissions as follows:

- 100 tons per year CO
- 10 tons per year NO_X
- 10 tons per year ROG
- 27 tons per year SO_X
- 15 tons per year PM_{10}
- 15 tons per year $PM_{2.5}$

The project does not contain sources that would produce substantial quantities of SO_2 emissions during construction and operation. Modeling conducted for the project shows that SO_2 emissions are well below the SJVAPCD GAMAQI thresholds, as shown in the modeling results contained in Attachment A. No further discussion of SO_2 is required.

Construction Emissions

Construction activities associated with development of the proposed project would include site preparation, grading, building construction, paving, and architectural coatings. Emissions from construction-related activities are generally short-term in duration but may still cause adverse air quality impacts. During construction, fugitive dust would be generated from earth-moving activities. Exhaust emissions would also be generated from off-road construction equipment and construction-related vehicle trips. Emissions associated with construction of the proposed project are discussed below.

Table 4 provides the construction emissions estimate for the proposed project. Please refer to the Modeling Parameters and Assumptions section of this technical memorandum for details regarding assumptions used to estimate construction emissions. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required pursuant to CEQA guidelines.

Table 4: Construction Regional Air Pollutant Annual Emissions (Unmitigated)

Construction Year	Air Pollutants (ton/year)				
	ROG	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Phases 1 & 2 + RV Storage (2025)	0.18	1.37	1.71	0.25	0.12
Phases 1 & 2 + RV Storage (2026)	0.23	1.63	2.64	0.30	0.11
Phases 1 & 2 + RV Storage (2027)	0.79	0.14	0.23	0.03	0.01
Phase 3 & RV Removal (2027)	0.13	1.05	1.31	0.13	0.05
Phase 3 & RV Removal (2028)	0.20	0.06	0.09	0.01	0.00
Total Project Construction Emissions (tons over the entire construction duration)	**1.53**	**4.25**	**5.98**	**0.72**	**0.29**
Significance Threshold (tons/year)	**10**	**10**	**100**	**15**	**15**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**	**No**

Notes:
PM_{10} and $PM_{2.5}$ emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM_{10} Prohibitions.
NO_X = oxides of nitrogen
PM_{10} = particulate matter 10 microns in diameter
$PM_{2.5}$ = particulate matter 2.5 microns in diameter
ROG = reactive organic gases
Source: CalEEMod Output (Attachment A).

As shown in Table 4, estimated emissions from construction of project are below the SJVAPCD significance thresholds. Therefore, the regional construction emissions would be less than significant on a project basis.

Operational Emissions

As previously discussed, the pollutants of concern include ROG, NO_X, CO, PM_{10}, and $PM_{2.5}$. Emissions were assessed for full buildout operations in the 2027 operational year for the following two scenarios: Phases 1 and 2 with RV storage and Phases 1 through 3. The 2027 operational year was chosen as it would be the earliest year the project is anticipated to become operational. Emissions were estimated for full project buildout in the earliest operational year, thus generating the full amount of expected operational activity. The SJVAPCD Criteria Air Pollutant Significance thresholds were used to determine impacts. Operational annual emissions are shown in Table 5 below.

Table 5: Operational Annual Emissions for Full Buildout (Unmitigated)

Emissions Source	Tons per Year				
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
Phases 1 & 2 + RV Storage Developed					
Area	1.47	0.01	1.39	0.00	0.00
Energy Consumption	0.00	0.08	0.07	0.01	0.01
Mobile (On-road Vehicles)	0.38	0.58	3.32	0.86	0.22
Total Annual Emissions	**1.85**	**0.67**	**4.78**	**0.87**	**0.23**
Phases 1 – 3 Developed					
Area	1.83	0.01	1.49	0.00	0.00
Energy Consumption	0.01	0.10	0.08	0.01	0.01
Mobile (On-road Vehicles)	0.47	0.72	4.13	1.07	0.28
Total Annual Emissions	**2.31**	**0.83**	**5.70**	**1.08**	**0.29**
Highest Annual Emissions from Either Scenario					
Project Annual Emissions	**2.31**	**0.83**	**5.70**	**1.08**	**0.29**
Thresholds of Significance	**10**	**10**	**100**	**15**	**15**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**	**No**

Notes:
NO_X = oxides of nitrogen
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
PM_{10} = particulate matter 10 microns or less in diameter
ROG = reactive organic gases
Source: CalEEMod Output (Attachment A).

As shown in Table 5, operational emissions would not exceed the applicable SJVAPCD thresholds of significance for ROG, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$. Therefore, the impact from the operations of the project would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures are necessary.

Impact AIR-3 Expose sensitive receptors to substantial pollutant concentrations?

Impact Analysis

Emissions occurring at or near the project have the potential to create a localized impact that could expose sensitive receptors to substantial pollutant concentrations. Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution than others due to their exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. The SJVAPCD considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools.

The closest existing sensitive receptors (to the site area) are 2 single-family homes. One is located 143 feet west of the southwest corner of the project site and one located 243 feet east of the southeast corner of the project site. The Project site is otherwise surrounded by farmland with no other sensitive receptors within ¼ mile.

The nearest school is Webster Elementary School located 3.11 miles northwest of the project in the Madera Ranchos rural community. The nearest daycare facility is Nancy Fuller Children's University located 3.37 miles west of the project site, also in the Madera Ranchos.

The nearest hospital is Valley Children's Hospital located 3 miles southeast of the project site. There are no other healthcare facilities near the project. The closest senior assisted living facility to the project site is Ranchos Hills Seniors 2.21 miles west of the project site. A description of the land uses surrounding the project site is provided below.

- North - North of the project is developed farmland for 1¾ miles followed by undeveloped open land and a small residential subdivision 2.28 miles to the northeast.
- East – There is one residence 243 feet east of the southeast corner of the project followed by developed farmland with Highway 41 running north and south 1.88 miles to the east.
- South – South of the project is primarily developed farmland with a few scattered residences directly south and southwest. Rolling Hills subdivision is approximately 1½ miles southeast along the west side of Highway 41. Less than ½ mile to the southeast are future Riverstone residential subdivision lots and existing Riverstone homes starting at just under a mile. Avenue 12 runs east and west along the south end of the project and is the main route between Highway 99 to the west and Highway 41 to the east.
- West – West of the project is the nearest residence and Brockman Farming, located approximately 143 feet west of the southwest corner of the project. The rest of the area west of the project is primarily developed farmland, with the Madera Ranchos starting approximately 1½ miles directly west of the project site.

Localized Impacts

Emissions occurring at or near the project have the potential to create a localized impact also referred to as an air pollutant hotspot. Localized emissions are considered significant if when combined with background emissions, they would result in exceedance of any health-based air quality standard. In locations that already exceed standards for these pollutants, significance is based on a significant impact level (SIL) that represents the amount that is considered a cumulatively considerable contribution to an existing violation of an air quality standard. The pollutants of concern for localized impact in the SJVAB are NO_2, SO_X, and CO.

The SJVAPCD has provided guidance for screening localized impacts in the GAMAQI that establishes a screening threshold of 100 pounds per day of any criteria pollutant. If a project exceeds 100 pounds per day of any criteria pollutant, then ambient air quality modeling would be necessary. If the project does not exceed 100 pounds per day of any criteria pollutant, then it can be assumed that it would not cause a violation of an ambient air quality standard.

Construction: Localized Concentrations of PM_{10}, $PM_{2.5}$, CO, and NO_X

Local construction impacts would be short-term in nature lasting only during the duration of construction. As shown in Table 6 below, on-site construction emissions would be less than 100 pounds per day for each of the criteria pollutants. To present a conservative estimate, on-site emissions for on-road construction vehicles were included in the localized analysis. Based on the SJVAPCD's guidance, the construction emissions would not cause an ambient air quality standard violation.

Table 6: Localized Concentrations of PM_{10}, $PM_{2.5}$, CO, and NO_X for Construction

Daily Maximum	On-site Emissions (pounds per day)				
	ROG	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Phases 1 & 2 + RV Storage (2025)	3.39	31.78	30.45	9.04	5.20
Phases 1 & 2 + RV Storage (2026)	1.73	10.73	15.61	0.46	0.37
Phases 1 & 2 + RV Storage (2027)	77.04	10.25	15.42	0.41	0.33
Phase 3 & RV Removal (2027)	1.43	13.42	15.25	4.76	1.83
Phase 3 & RV Removal (2028)	39.47	8.09	10.43	0.25	0.22
Entire Project Construction Duration (2025-2028)					
Maximum Daily On-site Emissions	**77.04**	**31.78**	**30.45**	**9.04**	**5.20**
Significance Thresholds	**—**	**100**	**100**	**100**	**100**
Exceed Significance Thresholds?	**—**	**No**	**No**	**No**	**No**

Note: Overlap of construction activities is based on the construction schedule shown in Table 1 and Attachment A.

Source of Emissions: CalEEMod Output and Additional Supporting Information (Attachment A).

Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. March 19. Website: https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf. Accessed March 4, 2024.

Operation: Localized Concentrations of PM_{10}, $PM_{2.5}$, CO, and NO_X

Localized impacts could occur in areas with a single large source of emissions—such as a power plant—or at locations with multiple sources concentrated in a small area, such as a distribution center. As a mini storage facility, the proposed project would attract vehicle trips (both light-duty truck and passenger vehicles) and would emit air pollutants that have the potential to create a localized impact. The maximum daily operational emissions would occur at project buildout, which was assumed to occur in 2027 for the purposes of providing a conservative estimate of emissions. Operational emissions include those generated on-site by area sources such as consumer products, and landscape maintenance, energy use from natural gas combustion, and motor vehicles operation at the project site. To assess localized air impacts, motor vehicle emissions were estimated for on-site and localized operations using an adjusted trip length of 0.5 mile.

Table 7 below summarizes the results from the operational modeling of on-site emissions for the project.

Table 7: Localized Concentrations of PM_{10}, $PM_{2.5}$, CO, and NO_X for Operations (Phases 1 & 2 + RV Storage Developed)

Source	On-site Emissions (pounds per day)				
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
Area	9.32	0.14	15.46	0.03	0.02
Energy Consumption	0.02	0.44	0.36	0.03	0.03
Mobile (On-road Vehicles)	1.67	0.56	3.40	0.16	0.04
Daily Total	**11.01**	**1.14**	**19.22**	**0.22**	**0.09**
Significance Thresholds	**—**	**100**	**100**	**100**	**100**
Exceed Significance Thresholds?	**—**	**No**	**No**	**No**	**No**

Source of Emissions: CalEEMod Output (Attachment A).

Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. March 19. Website: https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf. Accessed March 4, 2024.

Table 8: Localized Concentrations of PM_{10}, $PM_{2.5}$, CO, and NO_X for Operations (Phases 1 -3 Developed)

Source	On-site Emissions (pounds per day)				
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
Area	11.40	0.15	16.51	0.03	0.02
Energy Consumption	0.03	0.56	0.47	0.04	0.04
Mobile (On-road Vehicles)	2.07	0.69	4.22	0.20	0.06
Daily Total	**13.50**	**1.40**	**21.20**	**0.27**	**0.12**
Significance Thresholds	**—**	**100**	**100**	**100**	**100**
Exceed Significance Thresholds?	**—**	**No**	**No**	**No**	**No**

Source of Emissions: CalEEMod Output (Attachment A).

Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. March 19. Website: https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf. Accessed March 4, 2024.

As shown in Table 7 and Table 8 above, the proposed project would not exceed operational screening thresholds for any pollutant in either buildout scenario. Therefore, based on the SJVAPCD's guidance, the operational emissions would not cause an ambient air quality standard violation for NO_X, CO, PM_{10}, or $PM_{2.5}$. As such, impacts from localized emissions from operations of the project would be less than significant.

Toxic Air Contaminants

Construction

Project construction would involve the use of diesel-fueled vehicles and equipment that emit DPM, which is considered a TAC. The SJVAPCD's current threshold of significance for TAC emissions is an increase in cancer risk for the maximally exposed individual of 20 in a million (formerly 10 in a million).

A project-level assessment was conducted of the potential community health risk and health hazard impacts on surrounding sensitive receptors resulting from the emissions of TACs during construction. A summary of the assessment is provided below, while the detailed assessment is provided in Attachment B.

Construction activity using diesel-powered equipment emits DPM, a known carcinogen. Diesel particulate matter includes exhaust PM_{10} and exhaust $PM_{2.5}$. A 10-year research program demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk.[8] Health risks from TACs are a function of both concentration and duration of exposure. Construction diesel emissions are

[8] California Air Resources Board (CARB). 2015. The Report on Diesel Exhaust. Website: https://ww2.arb.ca.gov/sites/default/files/classic/toxics/dieseltac/de-fnds.htm. Accessed March 4, 2024.

temporary, affecting an area for a period of weeks or months. Additionally, construction-related sources are mobile and transient in nature.

The health risk assessment evaluated DPM (represented as exhaust PM_{10}) emissions generated during construction of the proposed project and the related health risk impacts for sensitive receptors located within approximately 1,000 feet of the project boundary.

The project site is located within 1,000 feet of existing sensitive receptors that could be exposed to diesel emission exhaust during the construction period. To estimate the potential cancer risk associated with construction of the proposed project from equipment exhaust (including DPM), a dispersion model was used to translate an emission rate from the source location to concentrations at the receptor locations of interest (i.e., receptors at nearby residences). A maximally exposed receptor (MER) was determined for construction and through the use of the dispersion modeling. A graphical representation of the inputs used in the dispersion modeling, including the locations of modeled receptor locations, is included as part of Attachment B.

Table 9 presents a summary of the proposed project's construction cancer risk and chronic non-cancer hazard impacts at the MER from project construction prior to the application of any equipment mitigation.

Table 9: Health Risks from Unmitigated Project Construction

Scenario	Health Impact Metric	Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index
Risks and Hazards from Project Construction to the Off-site MER[1]			
Unmitigated Project Construction	Risks and Hazards at the MER	9.50	0.005
	Applicable Threshold of Significance	**20**	**1**
	Exceeds Individual Source Threshold?	No	No

Notes:

MER = Maximally Exposed Receptor

[1] The MER was determined to be an existing residence located approximately 243 feet east of the southeast corner of the project site at 36°55'25.0"N 119°49'38.2"W (Receptor # 448).

Source: Attachment B.

As shown in Table 9, estimated health risks from elevated DPM concentrations during construction of the proposed project would not exceed the applicable health risk significance thresholds in any scenario analyzed. Therefore, the proposed project would not result in a significant impact on nearby sensitive receptors from TACs during the construction period.

Operations

Unlike warehouses or distribution centers, the daily vehicle trips generated by the proposed mini storage project would be primarily generated by passenger vehicles. As described in the traffic study prepared for the proposed project, the Derrel's Mini Storage project is expected to generate 438 average daily trips under the "Phases 1 and 2 Developed" scenario and 548 average daily trips under the "Phases 1 through 3 Developed" scenario.[9] Passenger vehicles typically use gasoline engines rather than the diesel engines that are found in heavy-duty trucks. Gasoline-powered vehicles do emit TACs in the form of toxic organic gases, some of which are carcinogenic. Compared to the combustion of diesel, the combustion of gasoline had relatively low emissions of TACs. Thus, mini storage projects typically produce limited amounts of TAC emissions during operation. Nonetheless, it is anticipated that there would be some heavy-duty trucks visiting the project site during operations. Consistent with SJVAPCD guidance, an operational prioritization screening analysis was completed for the proposed project.

Operational DPM emissions from diesel trucks were estimated using EMFAC2021 emission factors and estimated truck travel and idling at the project site. The emissions were entered into the SJVAPCD Prioritization Screening Tool to determine the risk scores, with complete calculations and assumptions included as part of Attachment B. The results of the screening analysis are provided in Table 10.

Table 10: Prioritization Tool Health Risk Screening Results

Impact Source	Cancer Risk Score	Chronic Risk Score	Acute Risk Score
Phases 1 & 2 + RV Storage Developed			
Risk from Project Operations (Diesel Trucks)	1.649	0.006	0.000
Phases 1 – 3 Developed			
Risk from Project Operations (Diesel Trucks)	1.993	0.006	0.000
Highest Annual Emissions from Either Scenario			
Risk from Project Operations	**1.993**	**0.006**	**0.000**
Screening Risk Score Threshold	**10**	**1**	**1**
Screening Thresholds Exceeded?	**No**	**No**	**No**
Source: Construction Health Risk Assessment and Operational Health Risk Screening (Attachment B)			

As shown in Table 10, the project would not exceed the cancer risk or chronic hazard screening threshold levels during project operations. The primary source of the emissions responsible for chronic risk are from diesel trucks. DPM does not have an acute risk factor. Since the project does not exceed the applicable SJVAPCD screening thresholds for cancer risk, acute risk, or chronic risk, this impact would be less than significant.

Valley Fever

Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis* (*C. immitis*). The spores live in soil and can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust

[9] Peters Engineering Group, A California Corporation. 2024. Traffic Study for the Proposed Derrel's Mini Storage Northeast of the Intersection of Avenue 12 and Road 39½, Madera County, California. March 13, Revised April 15.

contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities.

The San Joaquin Valley is considered an endemic area for Valley fever. During 2000–2018, a total of 65,438 coccidioidomycosis cases were reported in California; median statewide annual incidence was 7.9 per 100,000 population and varied by region from 1.1 in Northern and Eastern California to 90.6 in the Southern San Joaquin Valley, with the largest increase (15-fold) occurring in the Northern San Joaquin Valley. Incidence has been consistently high in six counties in the Southern San Joaquin Valley (Fresno, Kern, Kings, Madera, Tulare, and Merced counties) and Central Coast (San Luis Obispo County) regions.[10] California experienced 7,393 new probable or confirmed cases of Valley fever onset in 2022. A total of 56 onset Valley fever cases were reported in Madera County in 2022 and 66 in 2023.[11]

The distribution of *C. immitis* within endemic areas is not uniform and growth sites are commonly small (a few tens of meters) and widely scattered. Known sites appear to have some ecological factors in common suggesting that certain physical, chemical, and biological conditions are more favorable for *C. immitis* growth. Avoidance, when possible, of sites favorable for the occurrence of *C. immitis* is a prudent risk management strategy. Listed below are ecologic factors and sites favorable for the occurrence of *C. immitis*:

1) Rodent burrows (often a favorable site for *C. immitis*, perhaps because temperatures are more moderate and humidity higher than on the ground surface)
2) Old (prehistoric) Indian campsites near fire pits
3) Areas with sparse vegetation and alkaline soils
4) Areas with high salinity soils
5) Areas adjacent to arroyos (where residual moisture may be available)
6) Packrat middens
7) Upper 30 centimeters of the soil horizon, especially in virgin undisturbed soils
8) Sandy, well-aerated soil with relatively high water-holding capacities

Sites within endemic areas less favorable for the occurrence of *C. immitis* include:

1) Cultivated fields
2) Heavily vegetated areas (e.g., grassy lawns)
3) Higher elevations (above 7,000 feet)
4) Areas where commercial fertilizers (e.g., ammonium sulfate) have been applied

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10 Centers for Disease Control and Prevention (CDC). 2020. Regional Analysis of Coccidioidomycosis Incidence—California, 2000–2018. Website: https://www.cdc.gov/mmwr/volumes/69/wr/mm6948a4.htm?s_cid=mm6948a4_e. Accessed March 5, 2024.

11 California Department of Public Health (CDPH). 2023. Coccidioidomycosis in California Provisional Monthly Report: January – December 2023 (as of December 31, 2023). Website: https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/CocciinCA ProvisionalMonthlyReport.pdf. Accessed March 5, 2024.

5) Areas that are continually wet
6) Paved (asphalt or concrete) or oiled areas
7) Soils containing abundant microorganisms
8) Heavily urbanized areas where there is little undisturbed virgin soil.[12]

The project is situated on a site previously disturbed that does not provide a suitable habitat for spores. Specifically, the project site has been previously disturbed and is sparsely covered with shrubbery. Therefore, development of the proposed project would have a lower probability of the site having *C. immitis* growth sites than if the site had been previously undisturbed.

Although conditions are not favorable, construction activities could generate fugitive dust that contain *C. immitis* spores. The project will minimize the generation of fugitive dust during construction activities by complying with SJVAPCD's Regulation VIII. Therefore, this regulation, combined with the relatively low probability of the presence of *C. immitis* spores would reduce Valley fever impacts to less than significant.

During operations, dust emissions are anticipated to be relatively small because most of the project area where operational activities would occur would be occupied by the proposed buildings, landscaping, and pavement associated with the proposed Derrel's Mini Storage development; it is anticipated that all internal travel areas would be paved. This condition would lessen the possibility of the project from providing habitat suitable for *C. immitis* spores and for generating fugitive dust that may contribute to Valley fever exposure. Impacts would be less than significant.

Naturally Occurring Asbestos

Review of the map of areas where naturally occurring asbestos in California are likely to occur found no such areas in the immediate project area. Therefore, development of the project is not anticipated to expose receptors to naturally occurring asbestos.[13] Impacts would be less than significant.

Impact Analysis Summary

In summary, the project would not result in a significant impact from localized criteria pollutants. The project is not a significant source of TAC emissions during either construction or operations. The project is not in an area with suitable habitat for Valley fever spores and is not in an area known to have naturally occurring asbestos.

Level of Significance Before Mitigation

Less than significant.

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[12] United States Geological Survey (USGS). 2000. Operational Guidelines (Version 1.0) for Geological Fieldwork in Areas Endemic for Coccidioidomycosis (Valley Fever), 2000, Open-File Report 2000-348. Website: https://pubs.usgs.gov/of/2000/0348/pdf/of00-348.pdf. Accessed March 5, 2024.

[13] U.S. Geological Survey. 2011. Van Gosen, B.S., and Clinkenbeard, J.P. California Geological Survey Map Sheet 59. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California. Open-File Report 2011-1188 Website: https://pubs.usgs.gov/of/2011/1188/. Accessed March 5, 2024.

Mitigation Measures

No mitigation measures are necessary.

Impact AIR-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Impact Analysis

Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. According to the *CBIA v. BAAQMD* ruling, impacts of existing sources of odors on the project are not subject to CEQA review. Therefore, the analysis to determine if the project would locate new sensitive receptors near an existing source of odor is not used to determine significance for this impact.

Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc. warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

Although the project site is within approximately 150 feet from the nearest sensitive receptor, the project is not expected to be a significant source of odors. The screening levels for these land use types are shown in Table 11.

Table 11: Screening Levels for Potential Odor Sources

Odor Generator	Screening Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile
Wastewater Treatment Facilities	2 miles
Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. March 19. Website: https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf. Accessed March 4, 2024.	

<u>*Project Construction and Project Operation*</u>

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. Although offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies. Project operations would not be anticipated to produce odorous emissions, as the project would not be considered an odor generator based on the land uses shown in Table 11. Construction activities associated with the proposed project could result in short-term odorous emissions from diesel exhaust associated with construction equipment. However, these emissions would be intermittent and would dissipate rapidly from the source. In addition, this diesel-powered equipment would only be present onsite temporarily during construction activities. The temporary and intermittent nature of construction activities would decrease the likelihood of the odors concentrating in a single area or lingering for any notable period of time. As such, these odors would likely not be noticeable for extended periods of time beyond the project's site boundaries. Therefore, construction would not create objectionable odors affecting a substantial number of people from use of diesel-powered equipment. As there would not be conditions under which the project would have the potential to expose a substantial number of people to odors emitted from construction or operations of the project, and the impact would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures are necessary.

GREENHOUSE GASES

Environmental Setting

Greenhouse Gases

Greenhouse gases and climate change are cumulative global issues. The CARB and EPA regulate GHG emissions within the State of California and the U.S., respectively. Meanwhile, the CARB has the primary regulatory responsibility within California for GHG emissions. Local agencies can also adopt policies for GHG emission reduction.

Many chemical compounds in the Earth's atmosphere act as GHGs as they absorb and emit radiation within the thermal infrared range. When radiation from the sun reaches the Earth's surface, some of it is reflected into the atmosphere as infrared radiation (heat). Greenhouse gases absorb this infrared radiation and trap the heat in the atmosphere. Over time, the amount of energy from the sun to the Earth's surface should be approximately equal to the amount of energy radiated back into space, leaving the temperature of the earth's surface roughly constant. Many gases exhibit these "greenhouse" properties. Some of them occur in nature (water vapor, carbon dioxide [CO_2], methane [CH_4], and nitrous oxide [N_2O]), while others are exclusively human made (like gases used for aerosols).

The principal climate change gases resulting from human activity that enter and accumulate in the atmosphere are listed below.

Carbon Dioxide

Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and chemical reactions (e.g., the manufacture of cement). Carbon dioxide is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.

Methane

Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and agricultural practices and the decay of organic waste in municipal solid waste landfills.

Nitrous Oxide

Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Fluorinated Gases

Hydrofluorocarbons, perfluorinated chemicals, and sulfur hexafluoride are synthetic, powerful climate-change gases that are emitted from a variety of industrial processes. Fluorinated gases are often used as substitutes for ozone-depleting substances (i.e., chlorofluorocarbons, hydrochlorofluorocarbons, and halons). These gases are typically emitted in smaller quantities, but because they are potent climate-change gases, they are sometimes referred to as high global warming potential gases.

Emissions Inventories and Trends

According to the CARB's recent GHG inventory for the State, released 2021, California produced 418.2 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) in 2019. The major source of GHGs in California is transportation, contributing approximately 39.7 percent of the state's total GHG emissions in 2019.[14] This puts total emissions at 12.8 $MMTCO_2e$ below the 2020 target of 431 million metric tons. California statewide GHG emissions dropped below the 2020 GHG limit in 2016 and have remained below the 2020 GHG limit since then.

Potential Environmental Impacts

For California, climate change in the form of warming has the potential to incur and exacerbate environmental impacts, including but not limited to changes to precipitation and runoff patterns, increased agricultural demand for water, inundation of low-lying coastal areas by sea-level rise, and increased incidents and severity of wildfire events.[15] Cooling of the climate may have the opposite effects. Although certain environmental effects are widely accepted to be a potential hazard to certain locations, such as rising sea level for low-lying coastal areas, it is currently infeasible to predict all environmental effects of climate change on any one location.

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial and manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. A project's GHG emissions are at a micro-scale relative to global emissions but could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact.

Regulatory Requirements

California has adopted statewide legislation addressing various aspects of climate change and GHG emissions mitigation. Much of this legislation establishes a broad framework for the state's long-term GHG reduction and climate change adaptation program. The governor has also issued several executive orders (EOs) related to the state's evolving climate change policy. Of particular importance are AB 32 and SB 32, which outline the state's GHG reduction goals of achieving 1990 emissions levels by 2020 and a 40 percent reduction below 1990 emissions levels by 2030.

In the absence of federal regulations, control of GHGs is generally regulated at the state level and is typically approached by setting emission reduction targets for existing sources of GHGs, setting policies to promote renewable energy and increase energy efficiency, and developing statewide action plans.

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[14] California Air Resources Board (CARB). 2021. California Greenhouse Gas Emissions for 2000 to 2019. Website: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf. Accessed March 5, 2024.

[15] Moser et al. 2009. Moser, Susie, Guido Franco, Sarah Pittiglio, Wendy Chou, Dan Cayan. 2009. The Future Is Now: An Update on Climate Change Science Impacts and Response Options for California. Website: http://www.susannemoser.com/documents/CEC-500-2008-071_Moseretal_FutureisNow.pdf. Accessed March 5, 2024.

CEQA Guidelines

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine if a project would have a significant impact on GHGs, the type, level, and impact of emissions generated by the project must be evaluated.

The following GHG significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97. A significant impact would occur if the project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

Thresholds of Significance

San Joaquin Valley Air Pollution Control District

The SJVAPCD's Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA presents a tiered approach to analyzing project significance with respect to GHG emissions. Project GHG emissions are considered less than significant if they can meet any of the following conditions, evaluated in the order presented:

- Project is exempt from CEQA requirements;
- Project complies with an approved GHG emission reduction plan or GHG mitigation program;
- Project implements Best Performance Standards (BPS); or
- Project demonstrates that specific GHG emissions would be reduced or mitigated by at least 29 percent compared to Business-as-Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period.

Project-level Thresholds

Section 15064.4(b) of the CEQA Guidelines' amendments for GHG emissions states that a lead agency may take into account the following three considerations in assessing the significance of impacts from GHG emissions.

- Consideration #1: The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.
- Consideration #2: Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- Consideration #3: The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific

requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an Environmental Impact Report (EIR) must be prepared for the project.

Newhall Ranch

In the California Supreme Court decision in the *Center for Biological Diversity et al. vs. California Department of Fish and Wildlife, the Newhall Land and Farming Company* (62 Cal.4th 204 [2015], and known as the Newhall Ranch decision), the Supreme Court was concerned that new development may need to reduce GHG emissions more than existing development to demonstrate it is meeting its fair share of reductions. New development does do more than its fair share through compliance with enhanced regulations, particularly with respect to motor vehicles, energy efficiency, and electricity generation. If no additional reductions are required from an individual project beyond that achieved by regulations, then the amount needed to reach the 2020 target is the amount of GHG emissions a project must reduce to comply with Statewide goals.

The State's regulatory program implementing the 2008 Scoping Plan is now fully mature. All regulations envisioned in the Scoping Plan have been adopted by the responsible agencies and the effectiveness of those regulations have been estimated by the agencies during the adoption process and then are tracked to verify their effectiveness after implementation. The Governor Brown, in the introduction to Executive Order B-30-15, states "California is on track to meet or exceed the current target of reducing greenhouse gas emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32)." The progress was evident in emission inventories prepared by CARB, which showed that the State inventory dropped below 1990 levels for the first time in 2016.[16] The State projects that it will meet the 2020 target and achieve continued progress towards meeting the 2017 Scoping Plan target for 2030.[17] CARB adopted the 2022 Scoping Plan on December 16, 2022 that addresses long-term GHG goals set forth by AB 1279.[18] The 2022 Scoping Plan outlines the State's pathway to achieve carbon neutrality and an 85 percent reduction in 1990 emissions goal by 2045. In the 2022 Scoping Plan, CARB advocates for compliance with a local GHG reduction strategy consistent with CEQA Guidelines section 15183.5.

GHG Threshold Applied in the Analysis

The County of Madera has not adopted a GHG reduction plan. In addition, the County has not completed the GHG inventory, benchmarking, or goal-setting process required to identify a reduction target and take advantage of the streamlining provisions contained in the CEQA Guidelines amendments adopted for SB 97 and clarifications provided in the CEQA Guidelines amendments adopted on December 28, 2018. In the absence of an adopted numeric GHG

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[16] California Air Resources Board (CARB). 2018. Climate Pollutants Fall Below 1990 Levels for the First Time. Website: https://ww2.arb.ca.gov/news/climate-pollutants-fall-below-1990-levelsfirst-time. Accessed March 5, 2024.
[17] California Air Resources Board (CARB). 2017. The 2017 Climate Change Scoping Plan Update, the Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target. January 17, 2017. Website: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf. Accessed March 5, 2024.
[18] The Final 2022 Scoping Plan was released in November 2022 and adopted by CARB in December 2022.

emissions threshold consistent with the State's 2030 target, the project's GHG emissions impact determination is based on the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The project's GHG emissions are provided for informational purposes only.

Environmental Impact Analysis

This section discusses potential impacts related to GHGs associated with the proposed project and provides mitigation measures where necessary.

Impact GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Impact Analysis

The proposed project may contribute to climate change impacts through its contribution of GHGs. The proposed project would generate a variety of GHGs during construction and operations, including several defined by AB 32, such as CO_2, CH_4, and N_2O from the exhaust of equipment during construction and on-road vehicle trips during construction and operations.

In the absence of an adopted numeric GHG emissions threshold consistent with the State's 2030 target, the project's GHG emissions impact determination is based on the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The project's GHG emissions are provided for informational purposes only.

Quantification of Greenhouse Gas Emissions for Informational Purposes

Construction Emissions

Construction emissions would be generated from the exhaust of construction equipment, material delivery trips, haul truck trips, and worker commuter trips. Detailed construction assumptions are provided in the Modeling Parameters and Assumptions section of this technical memorandum. Construction-generated GHGs were quantified and are disclosed in Attachment A. $MTCO_2e$ emissions during construction of the project are summarized below in Table 12.

Table 12: Construction Greenhouse Gas Emissions

Project Construction (2025-2028)	$MTCO_2e$ per Year
Phases 1 & 2 + RV Storage (2025)	399
Phases 1 & 2 + RV Storage (2026)	665
Phases 1 & 2 + RV Storage (2027)	59
Phase 3 & RV Removal (2027)	280
Phase 3 & RV Removal (2028)	18
Total Construction $MTCO_2e$	1,421
Emissions Amortized Over 30 Years[1]	**47.4**
Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent	

Project Construction (2025-2028)	$MTCO_2e$ per Year
[1] Construction GHG emissions are amortized over the 30-year lifetime of the project. Source: CalEEMod Output (Attachment A).	

During the construction of the proposed project, approximately 1,421 $MTCO_2e$ would be emitted. Neither the County of Madera nor the SJVAPCD have an adopted threshold of significance for construction related GHG emissions. Because impacts from construction activities occur over a relatively short-term period, they contribute a relatively small portion of the overall lifetime project GHG emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. Therefore, a standard practice is to amortize construction emissions over the anticipated lifetime of a project so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies. However, emissions were quantified for informational purposes only. The total emissions generated during construction were amortized based on the life of the development (30 years) and added to the operational emissions to determine the total emissions from the project, as shown below.

Operational Emissions

Operational or long-term emissions occur over the life of the project. The operational emissions for the proposed project are shown in Table 13. Sources for operational emissions include the following:

- Motor Vehicles: These emissions refer to GHG emissions contained in the exhaust from the cars and trucks that would travel to and from the project site. As described in the traffic study prepared for the proposed project, the Derrel's Mini Storage project is expected to generate 438 average daily trips under the "Phases 1 and 2 Developed" scenario and 548 average daily trips under the "Phases 1 through 3 Developed" scenario.[19]
- Natural Gas: These emissions refer to the GHG emissions that occur when natural gas is burned on the project site. Natural gas use is planned for the office space and one residence and could include heating water, space heating, dryers, stoves, or other uses.
- Indirect Electricity: These emissions refer to those generated by offsite power plants to supply electricity required for the project.
- Water Transport: These emissions refer to those generated by the electricity required to transport and treat the water to be used on the project site.
- Waste: These emissions refer to the GHG emissions produced by decomposing waste generated by the project.

Detailed modeling results and more information regarding assumptions used to estimate emissions are provided in Attachment A. Operational emissions are shown below in Table 13.

[19] Peters Engineering Group, A California Corporation. 2024. Traffic Study for the Proposed Derrel's Mini Storage Northeast of the Intersection of Avenue 12 and Road 39½, Madera County, California. March 13, Revised April 15.

Table 13: Operational Greenhouse Gas Emissions for Project Buildout (Phases 1 & 2 + RV Storage Developed)

Source Category	Project Total Buildout Phases 1 & 2 + RV Storage Developed ($MTCO_2e$/year)	Project Total Buildout Phases 1 – 3 Developed ($MTCO_2e$/year)
Area	5.6	5.9
Energy Consumption	444.6	532.0
Mobile (On-road Vehicles)	939.1	1166.6
Water Usage	113.2	145.9
Solid Waste Generation	86.4	111.3
Refrigerants	0.002	0.002
Amortized Construction Emissions	47.4	47.4
Total	**1,636**	**2,009**
Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent Source: CalEEMod Output (Attachment A).		

As previously noted, the project's estimated emissions were estimated for disclosure purposes. However, significance for GHG emissions is analyzed by assessing the project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. As discussed in detail below, the project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of GHGs. As such, the project's generation of GHG emissions would not result in a significant impact on the environment.

Impact Analysis (Project's Compliance with Consideration No. 3 Regarding Consistency with Adopted Plans to Reduce GHG Emissions)

The following analysis evaluates the project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. As discussed above, the County of Madera has not adopted a GHG reduction plan. In addition, the County has not completed the GHG inventory, benchmarking, or goal-setting process required to identify a reduction target and take advantage of the streamlining provisions contained in the CEQA Guidelines amendments adopted for SB 97 and clarifications provided in the CEQA Guidelines. The SJVAPCD has adopted a Climate Action Plan, but it does not contain measures that are applicable to the project. Therefore, the SJVAPCD Climate Action Plan cannot be applied to the project. Since no other local or regional Climate Action Plan is in place, the project is assessed for its consistency with CARB's adopted 2008, 2017, and 2022 Scoping Plans.

Greenhouse Gas Emissions Estimation Summary and Greenhouse Gas Impact Analysis

Greenhouse Gas Impact Analysis

The following analysis assesses the proposed project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. The proposed project is assessed for its consistency with CARB's adopted Scoping Plans. This would be achieved with an assessment of the proposed project's compliance with Scoping Plan measures contained in the 2017 Scoping Plan Update and addressing the project's consistency with the 2022 Scoping Plan.

Consistency with SB 32

The 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) includes the strategy that the State intends to pursue to achieve the 2030 targets of Executive Order S-3-05 and SB 32. The 2017 Scoping Plan includes the following summary of its overall strategy for reaching the 2030 target:

- SB 350
  - Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
  - Doubling of energy efficiency savings by 2030.
- Low Carbon Fuel Standard (LCFS)
  - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
- Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
  - Maintaining existing GHG standards for light- and heavy-duty vehicles.
  - Put 4.2 million zero-emission vehicles (ZEVs) on the roads.
  - Increase ZEV buses, delivery and other trucks.
- Sustainable Freight Action Plan
  - Improve freight system efficiency.
  - Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
  - Deploy over 100,000 zero-emission trucks and equipment by 2030.
- Short-Lived Climate Pollutant (SLCP) Reduction Strategy
  - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
  - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
- SB 375 Sustainable Communities Strategies
  - Increased stringency of 2035 targets.
- Post-2020 Cap-and-Trade Program
  - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
  - CARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In Fall 2016,

CARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.

- By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Table 14 provides an analysis of the project's consistency with the 2017 Scoping Plan Update measures.

Table 14: Consistency with SB 32 2017 Scoping Plan Update

Scoping Plan Measure	Project Consistency
SB 350 50% Renewable Mandate. Utilities subject to the legislation will be required to increase their renewable energy mix from 33% in 2020 to 50% in 2030. This has been increased to 60%.	**Consistent**: The project will purchase electricity from a utility subject to the SB 350 Renewable Mandate SB 100 Renewable Mandate. SB 100 revised the Renewable Portfolio Standard goals to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. The specific provider for the County of Madera and the proposed project is Pacific Gas and Electric (PG&E).
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.	**Not Applicable**. This measure applies to existing buildings. New structures are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency over time.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Consistent**. Vehicles accessing the project site will use fuel containing lower carbon content as the fuel standard is implemented.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario). Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	**Consistent**. The project consists of construction and development of a Derrel's Mini Storage facility (buildings, paving, and parking). The project would not engage in vehicle manufacturing; however, vehicles would access the project site during project operations. Future project customers and other visitors can be expected to purchase increasing numbers of more fuel efficient and zero emission cars and trucks each year. Visiting truck trips will be made by increasing numbers of ZEV trucks as fleets turnover across the state.
Sustainable Freight Action Plan. The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.	**Not Applicable**. The measure applies to owners and operators of trucks and freight operations. The vast majority of trucks visiting the project site would not be owned or controlled by the project applicant or future project tenants. However, deliveries and truck customers that would travel to the future Derrel's Mini Storage development are expected to be made by increasing number of ZEV trucks.

Scoping Plan Measure	Project Consistency
Short-Lived Climate Pollutant (SLCP) Reduction Strategy. The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	**Consistent.** Sources of black carbon are already regulated by the CARB and air district criteria pollutant and toxic regulations that control fine particulate emissions from diesel engines and other combustion sources. Furthermore, the project would not include wood-burning sources.
SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a sustainable community's strategy for reduction of per capita vehicle miles traveled.	**Not Applicable**. The project does not consist of a proposed regional transportation plan; therefore, this measure is not applicable to the proposed project.
Post-2020 Cap-and-Trade Program. The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Consistent.** The post-2020 Cap-and-Trade Program indirectly affects people who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the program's first compliance period.
Natural and Working Lands Action Plan. The CARB is working in coordination with several other agencies at the federal, state, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not Applicable**. The project consists of a Derrel's Mini Storage facility development with buildings, paving and parking. The Mini Storage facility will not be considered as natural or working lands.
Source: California Air Resources Board (CARB). 2017. The 2017 Climate Change Scoping Plan Update. January 20. Website: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf. Accessed March 5, 2024.	

Consistency Regarding GHG Reduction Goals for 2050 under Executive Order S-3-05 and GHG Reduction Goals for 2045 under the 2022 Scoping Plan

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures with any level of certainty, as they have not yet been developed; nevertheless, it can be anticipated that operation of the project would comply with whatever measures are enacted that state lawmakers decide would lead to an 80 percent reduction below 1990 levels by 2050. In its 2008 Scoping Plan, CARB acknowledged that the "measures needed to meet the 2050 are too far in the future to define in detail." In the First Scoping Plan Update; however, CARB generally described the type of activities required to achieve the 2050 target: "energy demand reduction through efficiency and activity changes; large scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately." The 2017 Scoping Plan provides an intermediate target that is intended to achieve reasonable progress toward the 2050 target. In addition, the 2022 Scoping Plan outlines objectives, regulations, planning efforts, and investments in clean technologies and infrastructure that outlines how the State can achieve carbon-neutrality by 2045.

CARB's 2022 Scoping Plan for Achieving Carbon Neutrality was approved in December 2022 and expands on prior Scoping Plans and legislations-such as AB 1279-by outlining a technologically feasible, cost-effective, and equity-focused path to achieve the State's climate target of reducing anthropogenic GHG emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045 or earlier.[20] To achieve carbon neutrality by 2045, the 2022 Scoping Plan contains GHG reductions, technology, and clean energy mandated by statutes, reduction of short-lived climate pollutants, and mechanical carbon dioxide capture and sequestration actions. Table 15 contains a list of key GHG emission reduction actions and strategies from the 2022 Scoping Plan and assesses the project's consistency with these actions and strategies.

Table 15: Project Consistency with 2022 Scoping Plan

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
Transportation Technology • Achieve 100 percent ZEV sales of light duty vehicles by 2035 and medium heavy-duty vehicles by 2040. • Achieve 20 percent zero-emission target for the aviation sector. • Develop a rapid and robust network of ZEV refueling infrastructure to support needed transition to ZEVs. • Ensure that the transition of ZEV technology is affordable for low-income households and communities of color and meets the needs of communities and small business. • Prioritize incentive funding for heavy-duty ZEV technology deployment in regions of the state with the highest concentrations of harmful criteria and toxic air contaminant emissions. • Promote private investment in the transition to ZEV technology, undergirded by regulatory certainty such as infrastructure credits in the Low Carbon Fuel Standard for hydrogen and electricity and hydrogen station grants from the CEC's Clean Transportation Program pursuant to Executive Order B-48-18.	State agencies and local agencies	**No Conflict**: Vehicles must transition to zero-emission technology to decarbonize the transportation sector. Executive Order N-79-20 reflects the urgency of transitioning to zero emission vehicles (ZEVs) by establishing target dates for reaching 100 percent ZEV sales or fleet transitions to ZEV technology. EO N-79-20 calls for 100 percent ZEV sales of new light-duty vehicles by 2035. The Advanced Clean Cars II regulation fulfills this goal and serves as the primary mechanism to help deploy ZEVs. A number of existing incentive programs also support this transition, including the Clean Cars 4 All Program. EO N-79-20 also sets targets for transitioning the medium- and heavy-duty fleet to zero emissions: by 2035 for drayage trucks and by 2045 for buses and heavy-duty long-haul trucks where feasible. Replacing heavy-duty vehicles with ZEV technology will substantially reduce GHG emissions and diesel PM emissions in communities adjacent to ports, distribution centers, and highways. EO N-79-20 sets an off-road equipment target of transitioning the entire fleet to ZEV technology by 2035, where feasible. There are a number of funding

[20] California Air Resources Board (ARB). 2022. Final 2022 Scoping Plan Update and Appendices. December. Website: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents. Accessed April 9, 2024.

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
• Evaluate and continue to offer incentives similar to those through FARMER, Carl Moyer, the Clean Fuel Reward Program, the Community Air Protection Program, the Low Carbon Transportation, including CORE. Where feasible, prioritize and increase funding for clean transportation equity programs. • Continue and accelerate funding support for zero emission vehicles and refueling infrastructure through 2030 to ensure the rapid transformation of the transportation sector.		sources available to support this transition, including FARMER, Carl Moyer, and Community Air Protection Incentives; as well as Low Carbon Transportation Incentives, including the Clean Off-Road Equipment program. Refueling infrastructure is a crucial component of transforming transportation technology. Electric vehicle chargers and hydrogen refueling stations must become easily accessible for all drivers to support a wholesale transition to ZEV technology. Deployment of ZEV refueling infrastructure is currently supported by a number of existing State public funding mechanisms. Intrastate aviation relies on internal combustion engine technology today, but battery-electric and hydrogen fuel cell aviation applications are in development, along with sustainable aviation fuel. GHG emissions generated by project-related passenger and truck vehicle travel would benefit from the above regulations and programs, and mobile source emissions generated by the proposed project would be reduced as automobiles and truck fleets are transitioned to ZEV technology. Additionally, the project would include EV charging infrastructure in accordance with regulations which would support the transition to EV technology. Thus, the project would not conflict with actions under the transportation technology sector.
Transportation Fuels • Accelerate the reduction and replacement of fossil fuel production and consumption in California. • Incentivize private investment in new zero-carbon fuel production in California. • Incentivize the transition of existing fuel production and distribution assets to support deployment of low- and zero-carbon fuels while protecting public health and the environment. • Invest in the infrastructure to support reliable refueling for transportation such as electricity and hydrogen refueling. • Evaluate and propose, as needed, changes to strengthen the Cap-and-Trade Program. • Initiate a public process focused on options to increase the stringency and scope of the LCFS: - Evaluate and propose accelerated carbon intensity targets pre-2030 for LCFS. - Evaluate and propose further declines in LCFS post-2030 carbon intensity targets to align with this 2022 Scoping Plan. - Consider integrating opt-in sectors into the program.	State agencies and local agencies	**No Conflict**: Mobile source emissions generated by the project would be reduced with implementation of the wider use of zero-carbon fuels consistent with reduction of GHG emissions under AB 1279. Additionally, the project would utilize energy efficiency appliances and equipment and will meet the applicable energy standards in the Title 24 Building Energy Efficiency Standards and CALGreen Code, which will limit the amount of fossil fuel use and GHG emissions. During operations the project will provide improvements to the pedestrian network by complying with local building codes and incorporating paved areas and landscaping. Considering the actions and strategies require action by the state and local agencies, project consistency is determined by assessing whether the project would conflict with the actions needed in the transportation fuels sector. As supported by the information provided above, the project would not conflict with actions in the transportation fuels sector.

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
- Provide capacity credits for hydrogen and electricity for heavy-duty fueling. • Monitor for and ensure that raw materials used to produce low-carbon fuels or technologies do not result in unintended consequences.		
Vehicles Miles Traveled • Achieve a per capita VMT reduction of at least 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045. • Reimagine new roadway projects that decrease VMT in a way that meets community needs and reduces the need to drive. • Invest in making public transit a viable alternative to driving by increasing affordability, reliability, coverage, service frequency, and consumer experience. • Implement equitable roadway pricing strategies based on local context and need, reallocating revenues to improve transit, bicycling, and other sustainable transportation choices. • Expand and complete planned networks of high-quality active transportation infrastructure. • Channel the deployment of autonomous vehicles, ride-hailing services, and other new mobility options toward high passenger-occupancy and low VMT-impact service models that complement transit and ensure equitable access or priority populations. • Streamline access to public transportation through programs such as the California Integrated Travel Project. • Ensure alignment of land use, housing, transportation, and conservation planning in adopted regional plans and local plans (e.g., general plans, zoning, and local transportation plans), and develop tools to support implementation of these plans. • Accelerate infill development and housing production at all affordability levels in transportation-efficient places, with a focus on housing for lower income residents.	State agencies and local agencies	**No Conflict**: VMT reductions will play a crucial role in reducing overall transportation energy demand and achieving California's climate, air quality, and equity goals. CARB did not set regulatory limits on VMT in the 2022 Scoping Plan because the authority to reduce VMT largely lies with state, regional, and local transportation, land use, and housing agencies, along with the Legislature and its budgeting choices. The project-specific traffic report includes a VMT analysis for the project.[21] The traffic report found that the project would have a less than significant VMT impact. As such, the project would not conflict with actions in the vehicle miles traveled sector.
Clean Electricity Grid • Per SB 350, double statewide energy efficiency savings in electricity and fossil gas end uses by 2030, through a combination of energy efficiency and fuel substitution actions. • Use long-term planning processes to support grid reliability and expansion of renewable and zero-carbon resource and infrastructure deployment. • Complete systemwide and local reliability assessments. Such assessments should be	State agencies and local agencies	**No Conflict**: Decarbonizing the electricity sector depends on both using energy more efficiently and replacing fossil-fueled generation with renewable and zero carbon resources, including solar, wind, energy storage, geothermal, biomass, and hydroelectric power. The RPS Program and the Cap-and-Trade Program continue to incentivize dispatch of renewables over fossil generation to serve state demand.

[21] Peters Engineering Group, A California Corporation. 2024. Traffic Study for the Proposed Derrel's Mini Storage Northeast of the Intersection of Avenue 12 and Road 39½, Madera County, California. March 13, Revised April 15.

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
completed before state agencies update their electricity sector GHG targets. • Prioritize actions to mitigate impacts to electricity reliability and affordability and provide sufficient flexibility in the state's decarbonization roadmap for adjustments as may be needed. • Facilitate long lead-time resource development. • Continue coordination between energy agencies and energy proceedings to maximize opportunities for demand response. • Continue to explore the benefits of regional markets to enhance decarbonization, reliability, and affordability. • Address resource build-out challenges, including permitting, interconnection, and transmission network upgrades. • Explore new financing mechanisms and rate designs to address affordability. • Per SB 100 and SB 1020, achieve 90 percent, 95 percent, and 100 percent renewable and zero-carbon retail sales by 2035, 2040, and 2045, respectively. • Evaluate and propose, as needed, changes to strengthen the Cap-and-Trade Program. • Target programs and incentives to support and improve access to renewable and zero-carbon energy projects (e.g., rooftop solar, community owned or controlled solar or wind, battery storage, and microgrids) for communities most at need, including frontline, low-income, rural, and indigenous communities. • Prioritize public investments in zero-carbon energy projects to first benefit the most overly burdened communities affected by pollution, climate impacts, and poverty.		SB 100 increased RPS stringency to require 60 percent renewables by 2030 and for California to provide 100 percent of its retail sales of electricity from renewable and zero-carbon resources by 2045. Furthermore, SB 1020 has added interim targets to SB 100's policy framework to require renewable and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035 and 95 percent of all electricity retail sales by 2040; establish a planning goal of at least 20 GW of offshore wind by 2045; and that state agencies plan for an energy transition that avoids the need for new fossil gas capacity to meet California's long-term energy goals. California also continues to advance its appliance and building energy efficiency standards to reduce growth in electricity consumption and meet the SB 350 goal to double statewide energy efficiency savings in electricity and fossil gas end uses by 2030. Increased transportation and building electrification and continued policy commitment to behind-the-meter solar and storage will continue to drive growth of microgrids and other distributed energy resources. Continued transition to renewable and zero-carbon electricity resources will enable electricity to become a zero-carbon substitute for fossil fuels. This transformation will drive investments in a large fleet of generation and storage resources but will also require significant transmission to accommodate these new capacity additions. Resources such as storage and demand-side management are essential to maintain reliability with high concentrations of renewables. Hydrogen produced from renewable resources and renewable feedstocks can serve a dual role as a low-carbon fuel for existing combustion turbines or fuel cells, and as energy storage for later use. The proposed project would utilize energy efficiency appliances and equipment and will meet the applicable energy standards in the Title 24 Building Energy Efficiency Standards and CALGreen Code. As such, the project would not conflict with actions under the clean electricity grid sector.
Sustainable Manufacturing and Buildings • Maximize air quality benefits using the best available control technologies for stationary sources in communities most in need. • Implement SB 905, which requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate carbon capture, utilization, and sequestration and carbon dioxide removal projects and technology.	State agencies and local agencies	**No Conflict**: The 2022 Scoping Plan reduces dependence on fossil gas in the industrial and building sectors by transitioning substantial energy demand to alternative fuels. Combustion of fossil gas, other gaseous fossil fuels, and solid fossil fuels provide energy to meet three broad industry needs: electricity, steam, and process heat. Non-combustion emissions result from fugitive emissions and from the chemical transformations inherent to some manufacturing processes. Decarbonizing industrial

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
• End fossil gas infrastructure expansion for newly constructed buildings. • Develop a net-zero cement strategy to meet SB 956 targets for the GHG intensity of cement use. • Leverage energy efficiency and low carbon hydrogen programs. • Prioritize most vulnerable residents with the majority of funds in the new $922 million Equitable Building Decarbonization program. • Achieve three million all-electric and electric-ready homes by 2030 and seven million by 2035 with six million heat pumps installed by 2030. • Adopt a zero-emission standard for new space and water heaters sold in California beginning in 2030. • Implement biomethane procurement targets for investor-owned utilities as specified in SB 1440.		facilities depends upon displacing fossil fuel use with a mix of electrification, solar thermal heat, biomethane, low- or zero-carbon hydrogen, and other low-carbon fuels to provide energy for heat and reduce combustion emissions. Emissions also can be reduced by implementing energy efficiency measures and using substitute raw materials that can reduce energy demand and some process emissions. Some remaining combustion emissions and some non-combustion CO_2 emissions can be captured and sequestered. This sector has a continuing demand for fossil gas due to lack of non-combustion technologically feasible or cost-effective alternatives for certain industrial sectors. Microgrids powered by renewable resources and with battery storage are emerging as a key enabler of electrification and decarbonization at industrial facilities. The project is a mini storage project and would not include industrial uses. The project will utilize energy efficiency appliances for the office space and manager's residence. The project would also meet the applicable energy standards in the Title 24 Building Energy Efficiency Standards and CALGreen Code. During operations, the project will provide improvements to the pedestrian network and would have a less-than-significant VMT impact. As such, the project would not conflict with sustainable manufacturing buildings industry sector.
Carbon Dioxide Removal and Capture Sector • Implement SB 905. • Achieve the 85 percent reduction in anthropogenic sources below 1990 levels per AB 1279 by incorporating Carbon Capture and Storage (CCS) into sectors and programs beyond transportation. • Evaluate and propose the role for CCS in cement decarbonization and as part of hydrogen peroxide pathways. • Explore carbon capture application for zero-carbon power for reliability needs per SB 100.	State agencies and local agencies	**No Conflict**: CARB has acknowledged that the deployment of carbon dioxide removal to counterbalance hard-to-abate residual emissions is needed to achieve net zero GHG emissions. Modeling shows that emissions from the AB 32 GHG Inventory sources will continue to persist even if all fossil related combustion emissions are phased out. Carbon dioxide removal includes both sequestration in natural and working lands and mechanical approaches such as: direct air capture, CCS (which is carbon capture from anthropogenic point sources involves capturing carbon from a smokestack of an emitting facility), or direct air capture (which captures carbon directly from the atmosphere). The project would not conflict with measures to increase carbon dioxide removal and capture. As such, the project would not conflict with action under the carbon dioxide removal and capture sector.
Short-Lived Climate Pollutants (Non- Combustion Gases)	State agencies and local agencies	**No Conflict**: SLCPs include black carbon, methane, and fluorinated gases. Dairy and livestock are the largest source of methane emissions followed by landfills. Black Carbon (soot) comes primarily from transportation, specifically heavy-duty vehicles

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
• Install anaerobic digesters to maximize air and water quality protection, maximize biomethane capture, and direct biomethane to specific sectors. • Increase alternative manure management projects. • Expand markets for products made from organic waste. • Pursuant to SB 1137, develop leak detection and repair plans for facilities in health protection zones, implement emission detection system standards, and provide public access to emissions data. • Convert large HFC emitters to the lowest practical global warming potential (GWP) technologies.		followed by fuel combustion for residential, commercial, and industrial uses. The project would not conflict with SLCP dairy and livestock methane sector actions in the 2022 Scoping Plan. The project is a mini storage development and does not include dairy or livestock. Furthermore, the project does not include a new landfill or any oil or gas production, processing, or storage facilities. The project would comply with the 2022 CalGreen Code for energy efficiency and use of high-GWP refrigerants and would not conflict with these policies or actions. The project is a mini storage development that would not include fireplaces and would not result in a significant VMT impact; lower VMT results in a reduction of fuel combustion. Considering the information presented above, the project would not conflict with SLCP sector actions in the 2022 Scoping Plan.
Natural and Working Lands • Implement AB 1757 and SB 27. • Implement the Climate Smart Strategy. • Accelerate the pace and scale of climate smart forest management to at least 2.3 million acres annually by 2025. • Accelerate the pace and scale of healthy soils practices to 80,000 acres annually by 2025, conserve at least 8,000 acres of annual crops annually, and increase organic agriculture to 20 percent of all cultivated acres by 2045. • Restore 60,000 acres of Delta wetlands annually by 2045. • Increase urban forestry investment annually by 200 percent, relative to business as usual.	State agencies and local agencies	**No Conflict**: AB 1757 requires state agencies to set targets for natural carbon removal and emissions reductions on natural and working lands. AB 1757 is expected to catalyze natural carbon sequestration in California by: requiring California Natural Resources Agency and CARB to establish targets for sequestration on natural and working lands for 2030, 2038, and 2045; ensuring that natural sequestration projects have rigorous measurement and verification; and establishing an expert committee to advise state agencies on modeling and implementation. SB 27 is designed to accelerate the removal of carbon from the atmosphere by expanding California's carbon removal capability (i.e. sequestration) and improve the carbon retention of the state's natural and working lands. The project is a mini storage development and would not include natural working lands. As such, the project would not conflict with natural and working strategies under the 2022 Scoping Plan.
Source: California Air Resources Board (CARB). 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. November 16. Website: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp_1.pdf. Accessed April 2024.		

As show above in Table 15, the project would not conflict with relevant 2022 Scoping Plan actions or strategies that aim to achieve the State's climate target of reducing anthropogenic emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045.

Conclusion

Taking into account the proposed project's emissions, project design features, and the progress being made by the State towards reducing emissions in key sectors such as transportation, industry, and electricity, the project would be consistent with State GHG Plans and would further the State's goals of reducing GHG emissions to 1990 levels by 2020, 40 percent below 1990 levels by 2030, carbon neutral by 2045, and 80 percent below 1990 levels by 2050, and does not obstruct their attainment. The proposed project's GHG impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures are necessary.

Impact GHG-2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Impact Analysis

The analysis contained above under Impact GHG-1 evaluates whether the project would conflict with any applicable plan, policy, or regulation of an agency adopted to reduce the emissions of GHGs. As discussed under Impact GHG-1 above, the project would not conflict with any applicable plan, policy, or regulation of agency to reduce. As such, project impacts in this regard would be less than significant.

Level of Significance Before Mitigation

Less than significant.

Mitigation Measures

No mitigation measures are necessary.

Attachments:

Attachment A – CalEEMod Output and Additional Supporting Information

Attachment B – Health Risk Assessment and Health Risk Screening

ATTACHMENT A
CalEEMod Output and Additional Supporting Information

Modeling Assumptions and CalEEMod Output Files

Table of Contents

Madera County Derrel's Mini Storage Project Construction Assumptions

Construction Phase			Num Days	
Phase Name	**Start Date**	**End Date**	**Week**	**Num Days**
Phases 1 & 2 + RV Storage				
Site Preparation	6/1/2025	6/13/2025	5	10
Grading	6/14/2025	8/1/2025	5	35
Paving	8/2/2025	8/29/2025	5	20
Building Construction	8/30/2025	1/29/2027	5	370
Architectural Coating	1/30/2027	2/26/2027	5	20
Phase 3 and Removal of RV Storage				
Demolition	2/27/2027	3/27/2027	5	20
Site Preparation	3/28/2027	3/30/2027	5	2
Grading	3/31/2027	4/5/2027	5	4
Building Construction	4/6/2027	1/11/2028	5	200
Paving	1/12/2028	1/26/2028	5	10
Architectural Coating	1/27/2028	2/10/2028	5	10

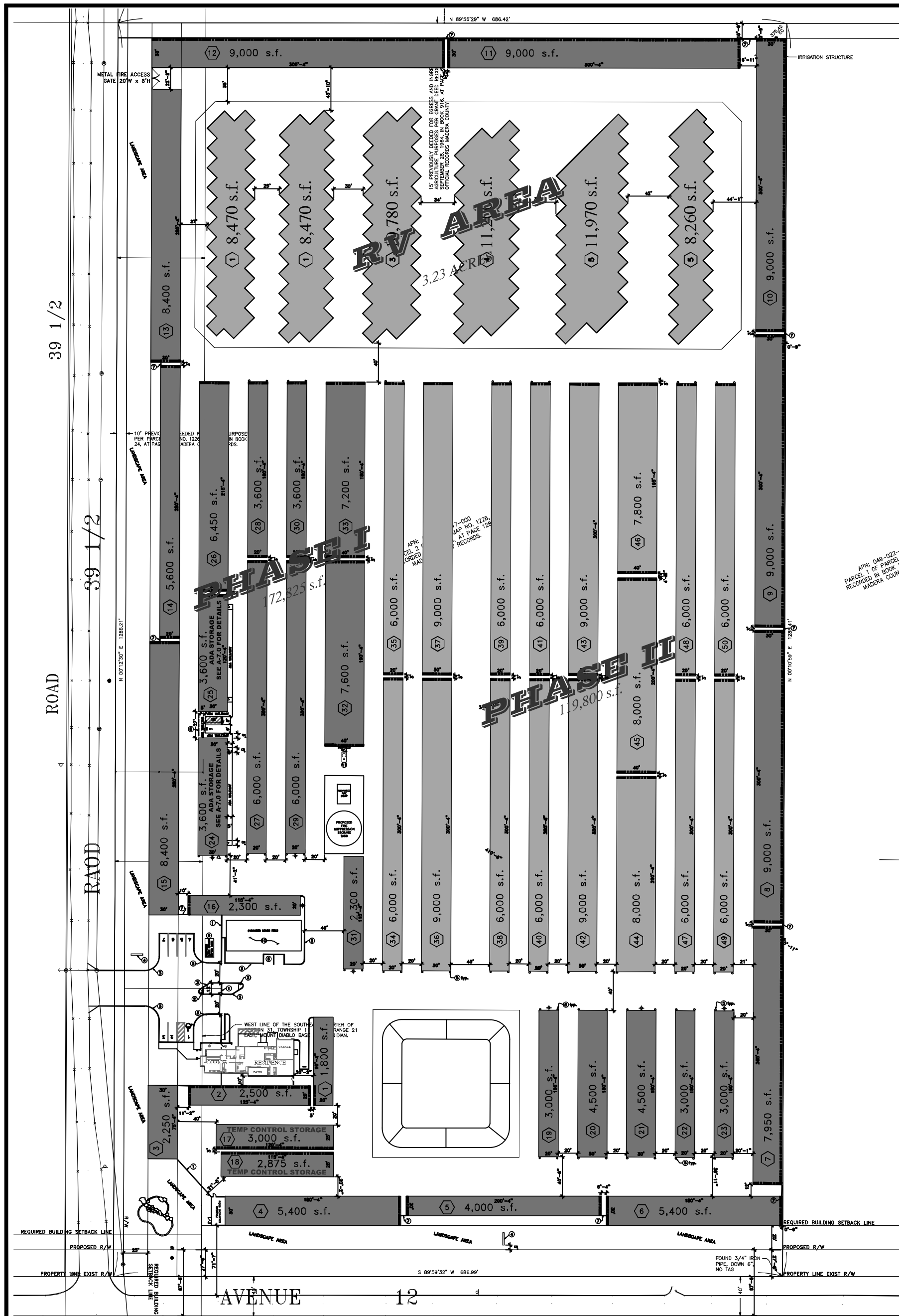
OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phases 1 & 2 + RV Storage					
Site Preparation	Rubber Tired Dozers	3	8	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8	84	0.37
Grading	Excavators	2	8	36	0.38
Grading	Graders	1	8	148	0.41
Grading	Rubber Tired Dozers	1	8	367	0.40
Grading	Tractors/Loaders/Backhoes	2	8	84	0.37
Grading	Scrapers	2	8	423	0.48
Paving	Pavers	2	8	81	0.42
Paving	Paving Equipment	2	8	89	0.36
Paving	Rollers	2	8	36	0.38
Building Construction	Cranes	1	7	367	0.29
Building Construction	Forklifts	3	8	82	0.20
Building Construction	Generator Sets	1	8	14	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	84	0.37
Building Construction	Welders	1	8	46	0.45
Architectural Coating	Air Compressors	1	6	37	0.48
Phase 3 and Removal of RV Storage					
Demolition	Concrete/Industrial Saws	1	8	33	0.73
Demolition	Rubber Tired Dozers	1	8	367	0.40
Demolition	Tractors/Loaders/Backhoes	3	8	84	0.37
Site Preparation	Graders	1	8	148	0.41
Site Preparation	Rubber Tired Dozers	1	7	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8	84	0.37
Grading	Graders	1	8	148	0.41
Grading	Rubber Tired Dozers	1	8	367	0.40
Grading	Tractors/Loaders/Backhoes	2	7	84	0.37
Building Construction	Cranes	1	6	367	0.29
Building Construction	Forklifts	1	6	82	0.20
Building Construction	Generator Sets	1	8	14	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6	84	0.37
Building Construction	Welders	3	8	46	0.45
Paving	Cement and Mortar Mixers	1	6	10	0.56
Paving	Pavers	1	6	81	0.42

Paving	Paving Equipment	1	8	89	0.36
Paving	Rollers	1	7	36	0.38
Paving	Tractors/Loaders/Backhoes	1	8	84	0.37
Architectural Coating	Air Compressors	1	6	37	0.48

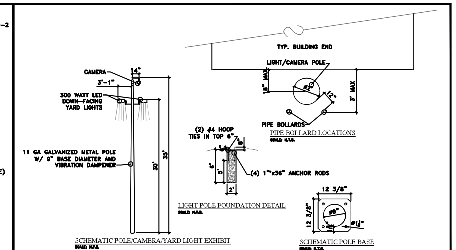
Trips and VMT **Phase Name**	**Worker Trips per Day**	**Vendor Trips per Day**	**Hauling Trips per Day**	**Worker Trip Length**	**Vendor Trip Length**	**Hauling Trip Length**
Phases 1 & 2 + RV Storage						
Site Preparation	17.50	10.00	0.00	13.77	9.27	20
Grading	20.00	10.00	11.31	13.77	9.27	20
Paving	15.00	10.00	0.00	13.77	9.27	20
Building Construction	148.98	58.14	0.00	13.77	9.27	20
Architectural Coating	29.80	10.00	0.00	13.77	9.27	20
Phase 3 and Removal of RV Storage						
Demolition	12.50	10.00	34.90	13.77	9.27	20
Site Preparation	7.50	10.00	0.00	13.77	9.27	20
Grading	10.00	10.00	0.00	13.77	9.27	20
Building Construction	35.64	13.91	0.00	13.77	9.27	20
Paving	12.50	10.00	0.00	13.77	9.27	20
Architectural Coating	7.13	10.00	0.00	13.77	9.27	20


Rd 39 1/2
Bella Vista Dr
Ave 12
Brockman Farming
Image © 2024 Airbus



LEGEND

- ACCESSIBLE PARKING SPACE w/SIGN – SEE DETAIL ON SHEET D-2
- BUILDING NUMBER
- 2A 10BC FIRE EXSTINGUISHER IN CABINET AS REQUIRED
- 30 WATT LED LIGHT AT +7'-6"
- STANDARD DECORATIVE LIGHT FIXTURE
- (1) 6'-0" HIGH CONCRETE BLOCK FENCE
- (2) ENTRY/EXIT KEPAD
- (3) 6" HIGH CONCRETE CURB
- (4) PROPOSED MONUMENT SIGN – (NOT PART OF THIS REVIEW)
- (5) 3" DIA. STEEL GUARD POST (TYP. @ BLDG. CORNERS)
- (6) REFUSE CONTAINER ENCLOSURE
- (7) BUILDING HEIGHT WALL BTWN. BUILDINGS ALONG PERIMETER (TYPICAL)
- (8) 36"W. CONCRETE WHEEL STOPS (TYP. BLDG BREAKS 4' OR MORE)
- (9) PROPOSED LOCATION OF SEPTIC TANK.
- (10) PROPOSED SEPTIC LEACH AREA
- (11) PROPOSED WELL LOCATION
- INDICATES TWO-HOUR FIRE WALL
- INDICATES ONE-HOUR FIRE WALL
- 5" CONCRETE DRIVES o/6" COMPACT NATIVE SOIL
- 4" CONCRETE DRIVES o/6" COMPACT NATIVE SOIL
- PROPOSED PHASE I BUILDING CONSTRUCTION
- PROPOSED PHASE II BUILDING CONSTRUCTION (FOUNDATION ONLY)
- FUTURE BUILDING CONSTRUCTION
- PROPOSED CARPORTS (SEPARATE SUBMITTAL) SEE SHEET A-1.2
- PROPOSED ENCLOSED CARPORTS (SEPARATE SUBMITTAL) SEE SHEET A-1.2

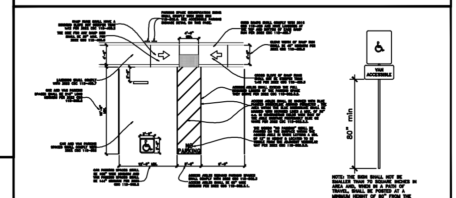


SCHEMATIC POLE/CAMERA/YARD LIGHT EXHIBIT
SCALE: N.T.S.

LIGHT POLE FOUNDATION DETAIL
SCALE: N.T.S.

SCHEMATIC POLE BASE
SCALE: N.T.S.

NOTES:
1. LIGHTS ARE TO BE INSTALLED WITH LIGHT FOCUSING LOUVERS. LIGHTS ARE NOT TO EXCEED 35' IN HEIGHT AND NOT TO EXCEED 300 WATTS.
2. WHERE LIGHTING IS PROVIDED TO ILLUMINATE PARKING, BUILDING ENTRANCES, AISLES, STORAGE, CARETAKER RESIDENCE, OFFICE, AND/OR TRUCK/TRAILER RENTAL AREAS, IT SHALL BE DOWN-DIRECTED, HOODED/SHIELDED AND SO ARRANGED AND CONTROLLED SO AS NOT TO CAUSE A NUISANCE EITHER TO STREET TRAFFIC OR TO THE LIVING ENVIRONMENT.
3. THE AMOUNT OF LIGHT REQUIRED FOR PUBLIC PARKING AND TRUCK/TRAILER RENTAL AREAS SHALL BE PROVIDED ACCORDING TO THE STANDARDS OF THE DEPT. OF PUBLIC WORKS.
4. LIGHTING TO BE DIRECTED AWAY FROM RESIDENTIAL AREAS.
5. LIGHT POLES AT THE PERIMETER TO ONLY HAVE LIGHTS POINTING TOWARD THE INTERIOR OF THE PROJECT.



PROPOSED ACCESSIBLE PARKING

ALLOWABLE SQUARE FOOTAGE

STORAGE: 9,000 S.F.
RV STORAGE: 13,500 S.F.
OFFICE: 5,000 S.F.
RESIDENCE: UNLIMITED S.F.

OCCUPANCY

STORAGE: S-1
RV STORAGE: S-2
OFFICE: B-2
RESIDENCE: R-3

TYPE OF CONSTRUCTION

STORAGE: V-B
RV STORAGE: V-B
OFFICE: V-B
RESIDENCE: V-B

SITE DATA

PROPERTY OWNER
BAKER MINI L.P.
3239 W. ASHLAN AVE.
FRESNO, CA 93722
(559) 224-9900

PROPERTY ADDRESS
NE CORNER AVE 12 & RD 39-1/2
MADERA, CA 93636
(NOT IN CITY, MADERA COUNTY IS REGULATORY AGENCY)

A.P.N.
049-022-017

LAND ACREAGE
GROSS: ±20.12 AC.
NET: ±XX AC.

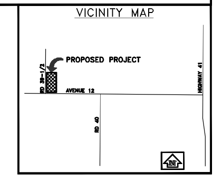
BUILDING SQUARE FOOTAGE
CONSTRUCTION PHASES
PROPOSED PH-I: 172,825 S.F.
PROPOSED PH-II: 119,800 S.F.
FUTURE: 84,850 S.F.
STORAGE: 377,475 S.F.
OFFICE: 804 S.F.
RESIDENCE: 1,327 S.F.
GARAGE: 391 S.F.
TOTAL: 379,997 S.F.

RV SQUARE FOOTAGE
CARPORTS/ENCLOSED: 60,620 S.F.

NOTE: SEE SHEET A-1.1 FOR PHASE III STRUCTURES.

NOTE: FUTURE STORAGE AND CARPORT/ ENCLOSED RV STORAGE OVERLAP SAME LAND AREA, FUTURE STORAGE BUILDINGS WILL BE CONSTRUCTED AS NEEDED AFTER REMOVAL OF OVERLAPPING RV STORAGE. FUTURE STORAGE TO BE PHASED AS NEEDED.

VICINITY MAP



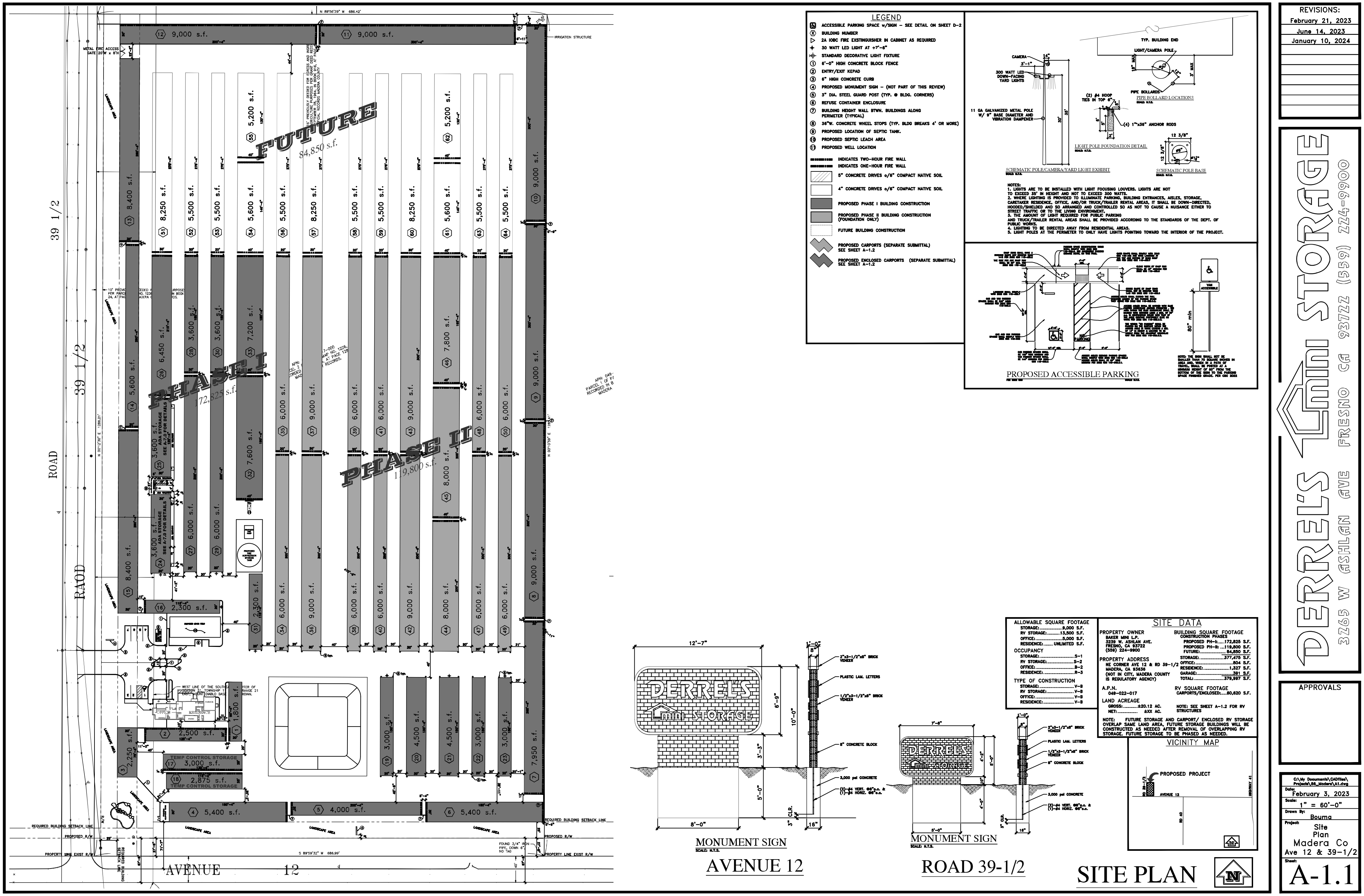
SITE PLAN

REVISIONS:
February 21, 2023
April 27, 2023
June 14, 2023
January 10, 2024

DERREL'S mini STORAGE
3265 W ASHLAN AVE FRESNO CA 93722 (559) 224-9900

APPROVALS

Date: February 3, 2023
Scale: 1" = 60'-0"
Drawn By: Bouma
Project: Site Plan Madera Co Ave 12 & 39-1/2
Sheet: A-1.2



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DERREL'S mini STORAGE
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REVISIONS:
February 21, 2023
June 14, 2023
January 10, 2024
APPROVALS
LEGEND
ACCESSIBLE PARKING SPACE w/SIGN – SEE DETAIL ON SHEET D-2
BUILDING NUMBER
2A IOBC FIRE EXSTINGUISHER IN CABINET AS REQUIRED
30 WATT LED LIGHT AT +7'-6"
STANDARD DECORATIVE LIGHT FIXTURE
1 6'-0" HIGH CONCRETE BLOCK FENCE
2 ENTRY/EXIT KEPAD
3 6" HIGH CONCRETE CURB
4 PROPOSED MONUMENT SIGN – (NOT PART OF THIS REVIEW)
5 3" DIA. STEEL GUARD POST (TYP. @ BLDG. CORNERS)
6 REFUSE CONTAINER ENCLOSURE
7 BUILDING HEIGHT WALL BTWN. BUILDINGS ALONG PERIMETER (TYPICAL)
8 36"W. CONCRETE WHEEL STOPS (TYP. BLDG BREAKS 4' OR MORE)
9 PROPOSED LOCATION OF SEPTIC TANK.
10 PROPOSED SEPTIC LEACH AREA
11 PROPOSED WELL LOCATION
INDICATES TWO-HOUR FIRE WALL
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SCHEMATIC POLE BASE
PIPE BOLLARD LOCATIONS
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PROPOSED ACCESSIBLE PARKING
FUTURE 84,850 s.f.
PHASE I 172,825 s.f.
PHASE II 119,800 s.f.
ROAD 39 1/2
AVENUE 12
MONUMENT SIGN
AVENUE 12
MONUMENT SIGN
ROAD 39-1/2
ALLOWABLE SQUARE FOOTAGE
STORAGE: 9,000 S.F.
RV STORAGE: 13,500 S.F.
OFFICE: 5,000 S.F.
RESIDENCE: UNLIMITED S.F.
OCCUPANCY
STORAGE: S-1
RV STORAGE: S-2
OFFICE: B-2
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TYPE OF CONSTRUCTION
STORAGE: V-B
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STORAGE: 377,475 S.F.
OFFICE: 804 S.F.
RESIDENCE: 1,327 S.F.
GARAGE: 391 S.F.
TOTAL: 379,997 S.F.
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VICINITY MAP
PROPOSED PROJECT
HIGHWAY 41
C:\My Documents\CADfiles\Projects\86_Madera\A1.dwg
Date: February 3, 2023
Scale: 1" = 60'-0"
Drawn By: Bouma
Project: Site Plan Madera Co Ave 12 & 39-1/2
Sheet: A-1.1

TRAFFIC STUDY

Proposed Derrel's Mini Storage

Northeast of the Intersection of Avenue 12 and Road 39½
Madera County, California

Prepared For:

Derrel's Mini Storage
3265 West Ashlan Avenue
Fresno, California 93722

Date:

March 13, 2024
Revised April 15, 2024

Job No.:

23-052.01

PETERS ENGINEERING GROUP
A CALIFORNIA CORPORATION

Table 1
Project Trip Generation – Phases 1 and 2 Developed

Phase	Units	A.M. Peak Hour Traffic Volumes			P.M. Peak Hour Traffic Volumes			Weekday Traffic Volume	
		Rate Split	Enter	Exit	Rate Split	Enter	Exit	Rate	Total
1	172,825 sq. ft.	0.09 59/41	9	7	0.15 47/53	12	14	1.45	251
2	119,800 sq. ft.	0.09 59/41	6	4	0.15 47/53	9	9	1.45	174
RV storage	126 spaces	0.01 50/50	1	1	0.01 50/50	1	1	0.10	13
TOTALS:			**16**	**12**		**22**	**24**		**438**

Reference: *Trip Generation Manual, 11th Edition, Institute of Transportation Engineers, September 2021* and *Trip Generation Study, RV Storage Areas Within Mini-Storage Complexes, Peters Engineering Group, March 12, 2012.*
Rates are reported in trips per 1,000 square feet of net rentable area for mini storage buildings and trips per parking space for RV storage.
Splits are reported as Entering/Exiting as a percentage of the total

Table 2
Project Trip Generation – Phases 1 through 3 Developed

Phase	Units	A.M. Peak Hour Traffic Volumes			P.M. Peak Hour Traffic Volumes			Weekday Traffic Volume	
		Rate Split	Enter	Exit	Rate Split	Enter	Exit	Rate	Total
1	172,825 sq. ft.	0.09 59/41	9	7	0.15 47/53	12	14	1.45	251
2	119,800 sq. ft.	0.09 59/41	6	4	0.15 47/53	9	9	1.45	174
3	84,850 sq. ft.	0.09 59/41	5	3	0.15 47/53	6	7	1.45	123
1-3	377,475 sq. ft.	0.09 59/41	**20**	**14**	0.15 47/53	**27**	**30**	1.45	**548**

Reference: *Trip Generation Manual, 11th Edition, Institute of Transportation Engineers, September 2021*
Rates are reported in trips per 1,000 square feet of net rentable area.
Splits are reported as Entering/Exiting as a percentage of the total

6.3 Trip Trace

Caltrans requested that the volume of Project trips (trip trace) expected at the intersection of Avenue 12 and State Route (SR) 41 be presented in the traffic study. The Project trips were assigned to the intersection based on the criteria described above and the results are presented in Figure 6, Project Peak-Hour Traffic Volumes – Phases 1 Through 3 Developed.

7.0 EXISTING-PLUS-PROJECT PHASES 1 THROUGH 3 TRAFFIC VOLUMES

Existing-plus-Project traffic volumes (considering the worst-case scenario with development of Phases 1 through 3) are presented in Figure 7, Existing-Plus-Project Peak-Hour Traffic Volumes, and were determined by adding the values in Figures 4 and 6.

Madera County Derrel's Mini Storage - Phases 1 & 2 + RV Storage Custom Report

Table of Contents

5.18.2. Sequestration

5.18.2.1. Unmitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Madera County Derrel's Mini Storage - Phases 1 & 2 + RV Storage
Construction Start Date	6/1/2025
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	16.0
Location	36.924933, -119.829353
County	Madera
City	Unincorporated
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2549
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.22

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

General Office Building	0.80	1000sqft	0.02	804	0.00	—	—	—
Unrefrigerated Warehouse-No Rail	173	1000sqft	3.97	172,825	0.00	—	—	Phase 1
Unrefrigerated Warehouse-No Rail	120	1000sqft	2.75	119,800	0.00	—	—	Phase 2
Single Family Housing	1.00	Dwelling Unit	0.32	1,718	11,713	—	3.00	Residence + garage
Enclosed Parking Structure	60.6	1000sqft	1.39	60,620	0.00	—	—	—
Parking Lot	11.7	Acre	11.7	0.00	76,235	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

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.	4.05	3.41	32.1	31.4	0.07	1.37	7.91	9.28	1.26	4.00	5.26	—	7,890	7,890	0.29	0.33	10.8	7,968
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.16	77.1	13.4	20.7	0.04	0.46	1.90	2.36	0.42	0.46	0.89	—	5,535	5,535	0.15	0.33	0.28	5,636
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.47	4.32	8.94	14.5	0.03	0.29	1.34	1.63	0.27	0.37	0.64	—	3,944	3,944	0.11	0.22	3.05	4,016

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.27	0.79	1.63	2.64	< 0.005	0.05	0.25	0.30	0.05	0.07	0.12	—	653	653	0.02	0.04	0.50	665

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	4.05	3.41	32.1	31.4	0.07	1.37	7.91	9.28	1.26	4.00	5.26	—	7,890	7,890	0.29	0.33	10.8	7,968
2026	2.13	1.84	12.4	22.0	0.04	0.40	1.90	2.30	0.37	0.46	0.84	—	5,646	5,646	0.14	0.31	9.87	5,753
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	2.16	1.85	13.4	20.7	0.04	0.46	1.90	2.36	0.42	0.46	0.89	—	5,535	5,535	0.15	0.33	0.28	5,636
2026	2.05	1.76	12.6	20.0	0.04	0.40	1.90	2.30	0.37	0.46	0.84	—	5,475	5,475	0.15	0.31	0.26	5,573
2027	1.92	77.1	12.0	19.5	0.04	0.36	1.90	2.26	0.33	0.46	0.80	—	5,413	5,413	0.15	0.31	0.23	5,511
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.07	1.00	7.51	9.39	0.02	0.29	1.08	1.36	0.27	0.37	0.64	—	2,374	2,374	0.07	0.11	1.33	2,409
2026	1.47	1.26	8.94	14.5	0.03	0.29	1.34	1.63	0.27	0.33	0.59	—	3,944	3,944	0.11	0.22	3.05	4,016
2027	0.12	4.32	0.75	1.25	< 0.005	0.02	0.13	0.15	0.02	0.03	0.05	—	348	348	0.01	0.02	0.26	355
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.20	0.18	1.37	1.71	< 0.005	0.05	0.20	0.25	0.05	0.07	0.12	—	393	393	0.01	0.02	0.22	399
2026	0.27	0.23	1.63	2.64	< 0.005	0.05	0.25	0.30	0.05	0.06	0.11	—	653	653	0.02	0.04	0.50	665
2027	0.02	0.79	0.14	0.23	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	57.6	57.6	< 0.005	< 0.005	0.04	58.7

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.	5.28	11.6	3.52	37.3	0.06	0.11	4.72	4.83	0.10	1.20	1.30	279	8,796	9,075	28.8	0.64	19.5	10,006
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.32	8.88	3.80	18.4	0.06	0.09	4.72	4.81	0.08	1.20	1.28	279	8,276	8,555	28.8	0.66	0.52	9,473
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.68	10.1	3.66	26.2	0.06	0.10	4.65	4.75	0.09	1.18	1.27	279	8,395	8,674	28.8	0.65	8.39	9,596
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.67	1.85	0.67	4.78	0.01	0.02	0.85	0.87	0.02	0.22	0.23	46.2	1,390	1,436	4.77	0.11	1.39	1,589

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	2.49	2.29	2.94	21.5	0.06	0.05	4.72	4.77	0.05	1.20	1.25	—	5,935	5,935	0.18	0.28	19.5	6,041
Area	2.75	9.32	0.14	15.5	< 0.005	0.03	—	0.03	0.02	—	0.02	0.00	74.0	74.0	< 0.005	< 0.005	—	74.2
Energy	0.05	0.02	0.44	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	2,663	2,663	0.39	0.04	—	2,685
Water	—	—	—	—	—	—	—	—	—	—	—	130	125	255	13.4	0.32	—	684
Waste	—	—	—	—	—	—	—	—	—	—	—	149	0.00	149	14.9	0.00	—	522
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	5.28	11.6	3.52	37.3	0.06	0.11	4.72	4.83	0.10	1.20	1.30	279	8,796	9,075	28.8	0.64	19.5	10,006

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.27	2.07	3.35	18.1	0.05	0.05	4.72	4.77	0.05	1.20	1.25	—	5,478	5,478	0.20	0.30	0.51	5,572
Area	< 0.005	6.78	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	10.5	10.5	< 0.005	< 0.005	—	10.5
Energy	0.05	0.02	0.44	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	2,663	2,663	0.39	0.04	—	2,685
Water	—	—	—	—	—	—	—	—	—	—	—	130	125	255	13.4	0.32	—	684
Waste	—	—	—	—	—	—	—	—	—	—	—	149	0.00	149	14.9	0.00	—	522
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	2.32	8.88	3.80	18.4	0.06	0.09	4.72	4.81	0.08	1.20	1.28	279	8,276	8,555	28.8	0.66	0.52	9,473
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.28	2.08	3.15	18.2	0.05	0.05	4.65	4.70	0.05	1.18	1.23	—	5,574	5,574	0.18	0.28	8.37	5,672
Area	1.35	8.03	0.07	7.62	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	33.7	33.7	< 0.005	< 0.005	—	33.8
Energy	0.05	0.02	0.44	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	2,663	2,663	0.39	0.04	—	2,685
Water	—	—	—	—	—	—	—	—	—	—	—	130	125	255	13.4	0.32	—	684
Waste	—	—	—	—	—	—	—	—	—	—	—	149	0.00	149	14.9	0.00	—	522
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	3.68	10.1	3.66	26.2	0.06	0.10	4.65	4.75	0.09	1.18	1.27	279	8,395	8,674	28.8	0.65	8.39	9,596
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.42	0.38	0.58	3.32	0.01	0.01	0.85	0.86	0.01	0.22	0.22	—	923	923	0.03	0.05	1.39	939
Area	0.25	1.47	0.01	1.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.57	5.57	< 0.005	< 0.005	—	5.59
Energy	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	441	441	0.06	0.01	—	445
Water	—	—	—	—	—	—	—	—	—	—	—	21.5	20.7	42.2	2.21	0.05	—	113
Waste	—	—	—	—	—	—	—	—	—	—	—	24.7	0.00	24.7	2.47	0.00	—	86.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.67	1.85	0.67	4.78	0.01	0.02	0.85	0.87	0.02	0.22	0.23	46.2	1,390	1,436	4.77	0.11	1.39	1,589

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.87	0.83	< 0.005	0.04	—	0.04	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	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	0.02	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1

Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	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	0.07	1.06	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	190	190	0.01	0.01	0.73	193
Vendor	0.02	0.01	0.36	0.13	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	291	291	< 0.005	0.04	0.79	305
Hauling	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	4.80	4.80	< 0.005	< 0.005	0.01	4.87
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.98	7.98	< 0.005	< 0.005	0.01	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	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.79	0.79	< 0.005	< 0.005	< 0.005	0.81
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

3.3. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	—	—	—	—	—	3.59	3.59	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.31	2.85	2.71	0.01	0.12	—	0.12	0.11	—	0.11	—	633	633	0.03	0.01	—	635
Dust From Material Movement	—	—	—	—	—	—	0.34	0.34	—	0.14	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.52	0.50	< 0.005	0.02	—	0.02	0.02	—	0.02	—	105	105	< 0.005	< 0.005	—	105
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	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	0.11	0.10	0.08	1.22	0.00	0.00	0.19	0.19	0.00	0.05	0.05	—	218	218	0.01	0.01	0.84	221
Vendor	0.02	0.01	0.36	0.13	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	291	291	< 0.005	0.04	0.79	305
Hauling	0.02	0.01	0.94	0.19	0.01	0.01	0.21	0.22	0.01	0.06	0.07	—	782	782	0.01	0.12	1.93	821
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.2	19.2	< 0.005	< 0.005	0.03	19.5
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.9	27.9	< 0.005	< 0.005	0.03	29.2
Hauling	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	75.0	75.0	< 0.005	0.01	0.08	78.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.18	3.18	< 0.005	< 0.005	0.01	3.22
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.62	4.62	< 0.005	< 0.005	0.01	4.83
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	0.01	13.0

3.5. 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	0.33	0.27	2.53	3.16	0.01	0.10	—	0.10	0.10	—	0.10	—	582	582	0.02	< 0.005	—	584
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.46	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	96.3	96.3	< 0.005	< 0.005	—	96.7
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.82	0.76	0.57	9.07	0.00	0.00	1.45	1.45	0.00	0.34	0.34	—	1,620	1,620	0.07	0.06	6.22	1,646
Vendor	0.09	0.06	2.09	0.76	0.01	0.02	0.45	0.48	0.02	0.12	0.15	—	1,692	1,692	0.02	0.25	4.59	1,771
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.73	0.67	0.74	6.91	0.00	0.00	1.45	1.45	0.00	0.34	0.34	—	1,444	1,444	0.04	0.06	0.16	1,462
Vendor	0.08	0.05	2.23	0.78	0.01	0.02	0.45	0.48	0.02	0.12	0.15	—	1,694	1,694	0.02	0.25	0.12	1,768
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.15	1.75	0.00	0.00	0.35	0.35	0.00	0.08	0.08	—	362	362	0.01	0.01	0.65	367
Vendor	0.02	0.01	0.53	0.18	< 0.005	0.01	0.11	0.11	0.01	0.03	0.04	—	411	411	< 0.005	0.06	0.48	429
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.32	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	59.9	59.9	< 0.005	< 0.005	0.11	60.8
Vendor	< 0.005	< 0.005	0.10	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	68.0	68.0	< 0.005	0.01	0.08	71.1
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. 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	0.91	0.77	7.04	9.26	0.02	0.27	—	0.27	0.25	—	0.25	—	1,712	1,712	0.07	0.01	—	1,718

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.28	1.69	< 0.005	0.05	—	0.05	0.05	—	0.05	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.77	0.71	0.52	8.33	0.00	0.00	1.45	1.45	0.00	0.34	0.34	—	1,587	1,587	0.03	0.06	5.68	1,611
Vendor	0.08	0.06	2.00	0.71	0.01	0.02	0.45	0.48	0.02	0.12	0.15	—	1,662	1,662	0.02	0.24	4.20	1,737
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.69	0.63	0.64	6.35	0.00	0.00	1.45	1.45	0.00	0.34	0.34	—	1,414	1,414	0.04	0.06	0.15	1,433
Vendor	0.07	0.05	2.14	0.72	0.01	0.02	0.45	0.48	0.02	0.12	0.15	—	1,664	1,664	0.02	0.24	0.11	1,734
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	0.50	0.46	0.41	4.71	0.00	0.00	1.02	1.02	0.00	0.24	0.24	—	1,044	1,044	0.02	0.04	1.75	1,059
Vendor	0.05	0.04	1.49	0.50	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.01	0.17	1.30	1,239
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.86	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	173	173	< 0.005	0.01	0.29	175
Vendor	0.01	0.01	0.27	0.09	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	197	197	< 0.005	0.03	0.21	205
Hauling	0.00	0.00	0.00	0.00	0.00	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. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.07	0.06	0.53	0.73	< 0.005	0.02	—	0.02	0.02	—	0.02	—	136	136	0.01	< 0.005	—	137
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.5	22.5	< 0.005	< 0.005	—	22.6
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.62	0.60	0.58	5.85	0.00	0.00	1.45	1.45	0.00	0.34	0.34	—	1,387	1,387	0.04	0.06	0.13	1,405
Vendor	0.07	0.05	2.05	0.68	0.01	0.02	0.45	0.48	0.02	0.12	0.15	—	1,630	1,630	0.02	0.24	0.10	1,700
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.03	0.03	0.35	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	81.3	81.3	< 0.005	< 0.005	0.13	82.5
Vendor	< 0.005	< 0.005	0.11	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	92.4	92.4	< 0.005	0.01	0.09	96.5
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.5	13.5	< 0.005	< 0.005	0.02	13.7
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.3	15.3	< 0.005	< 0.005	0.02	16.0
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

3.11. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	1.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.05	0.04	0.41	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.06	0.91	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	163	163	0.01	0.01	0.63	166
Vendor	0.02	0.01	0.36	0.13	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	291	291	< 0.005	0.04	0.79	305
Hauling	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	8.23	8.23	< 0.005	< 0.005	0.01	8.35
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.0	16.0	< 0.005	< 0.005	0.02	16.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	—	1.36	1.36	< 0.005	< 0.005	< 0.005	1.38
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.64	2.64	< 0.005	< 0.005	< 0.005	2.76
Hauling	0.00	0.00	0.00	0.00	0.00	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. 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	—	76.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	4.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.12	0.12	1.17	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	277	277	0.01	0.01	0.03	281
Vendor	0.01	0.01	0.35	0.12	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	280	280	< 0.005	0.04	0.02	292
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.7	15.7	< 0.005	< 0.005	0.02	15.9
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.02	16.0
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.60	2.60	< 0.005	< 0.005	< 0.005	2.64
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.54	2.54	< 0.005	< 0.005	< 0.005	2.65
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

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.05	0.04	0.06	0.41	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.02	—	113	113	< 0.005	0.01	0.37	115
Unrefrigerated Warehouse-No Rail	2.32	2.13	2.74	20.0	0.05	0.05	4.40	4.45	0.05	1.11	1.16	—	5,529	5,529	0.16	0.26	18.2	5,628
Single Family Housing	0.05	0.05	0.06	0.45	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.03	—	124	124	< 0.005	0.01	0.41	126
Enclosed Parking Structure	0.07	0.07	0.08	0.61	< 0.005	< 0.005	0.13	0.14	< 0.005	0.03	0.04	—	169	169	< 0.005	0.01	0.56	172
Parking Lot	0.00	0.00	0.00	0.00	0.00	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	2.29	2.94	21.5	0.06	0.05	4.72	4.77	0.05	1.20	1.25	—	5,935	5,935	0.18	0.28	19.5	6,041
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.04	0.04	0.06	0.34	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.02	—	105	105	< 0.005	0.01	0.01	106
Unrefrigerated Warehouse-No Rail	2.12	1.93	3.12	16.8	0.05	0.05	4.40	4.45	0.05	1.11	1.16	—	5,103	5,103	0.18	0.28	0.47	5,190
Single Family Housing	0.05	0.04	0.07	0.38	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.03	—	114	114	< 0.005	0.01	0.01	116
Enclosed Parking Structure	0.06	0.06	0.10	0.51	< 0.005	< 0.005	0.13	0.14	< 0.005	0.03	0.04	—	156	156	0.01	0.01	0.01	159

Parking Lot	0.00	0.00	0.00	0.00	0.00	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	2.27	2.07	3.35	18.1	0.05	0.05	4.72	4.77	0.05	1.20	1.25	—	5,478	5,478	0.20	0.30	0.51	5,572
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.01	0.01	0.01	0.05	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	13.3	13.3	< 0.005	< 0.005	0.02	13.6
Unrefrigerated Warehouse-No Rail	0.39	0.36	0.54	3.11	0.01	0.01	0.79	0.80	0.01	0.20	0.21	—	864	864	0.03	0.04	1.30	879
Single Family Housing	0.01	0.01	0.01	0.07	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	19.0	19.0	< 0.005	< 0.005	0.03	19.3
Enclosed Parking Structure	0.01	0.01	0.02	0.10	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	26.4	26.4	< 0.005	< 0.005	0.04	26.9
Parking Lot	0.00	0.00	0.00	0.00	0.00	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	0.42	0.38	0.58	3.32	0.01	0.01	0.85	0.86	0.01	0.22	0.22	—	923	923	0.03	0.05	1.39	939

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	< 0.005	< 0.005	—	10.6

Unrefrige Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,756	1,756	0.28	0.03	—	1,774
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	5.22	5.22	< 0.005	< 0.005	—	5.28
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	119	119	0.02	< 0.005	—	120
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	249	249	0.04	< 0.005	—	251
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,140	2,140	0.35	0.04	—	2,161
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	< 0.005	< 0.005	—	10.6
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,756	1,756	0.28	0.03	—	1,774
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	5.22	5.22	< 0.005	< 0.005	—	5.28
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	119	119	0.02	< 0.005	—	120
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	249	249	0.04	< 0.005	—	251
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,140	2,140	0.35	0.04	—	2,161
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	1.74	1.74	< 0.005	< 0.005	—	1.76

Unrefrige Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	291	291	0.05	0.01	—	294
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.86	0.86	< 0.005	< 0.005	—	0.87
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	19.6	19.6	< 0.005	< 0.005	—	19.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	41.2	41.2	0.01	< 0.005	—	41.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	354	354	0.06	0.01	—	358

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.42	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	500	500	0.04	< 0.005	—	502
Single Family Housing	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.5	12.5	< 0.005	< 0.005	—	12.5
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Parking Lot	0.00	0.00	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	0.02	0.44	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	523	523	0.05	< 0.005	—	524
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.42	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	500	500	0.04	< 0.005	—	502
Single Family Housing	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.5	12.5	< 0.005	< 0.005	—	12.5
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	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	0.02	0.44	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	523	523	0.05	< 0.005	—	524
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.70	1.70	< 0.005	< 0.005	—	1.71
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	82.8	82.8	0.01	< 0.005	—	83.1
Single Family Housing	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.06	2.06	< 0.005	< 0.005	—	2.07

Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	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	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	86.6	86.6	0.01	< 0.005	—	86.8

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	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	10.5	10.5	< 0.005	< 0.005	—	10.5
Consumer Products	—	6.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.75	2.53	0.13	15.5	< 0.005	0.03	—	0.03	0.02	—	0.02	—	63.5	63.5	< 0.005	< 0.005	—	63.7
Total	2.75	9.32	0.14	15.5	< 0.005	0.03	—	0.03	0.02	—	0.02	0.00	74.0	74.0	< 0.005	< 0.005	—	74.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	10.5	10.5	< 0.005	< 0.005	—	10.5

Consumer Products	—	6.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	< 0.005	6.78	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	10.5	10.5	< 0.005	< 0.005	—	10.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	0.39	0.39	< 0.005	< 0.005	—	0.39
Consumer Products	—	1.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.25	0.23	0.01	1.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.18	5.18	< 0.005	< 0.005	—	5.20
Total	0.25	1.47	0.01	1.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.57	5.57	< 0.005	< 0.005	—	5.59

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.27	0.26	0.53	0.03	< 0.005	—	1.44

Unrefrige Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	130	123	253	13.3	0.32	—	681
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.08	0.25	0.33	0.01	< 0.005	—	0.59
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.95	0.95	< 0.005	< 0.005	—	0.96
Total	—	—	—	—	—	—	—	—	—	—	—	130	125	255	13.4	0.32	—	684
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.27	0.26	0.53	0.03	< 0.005	—	1.44
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	130	123	253	13.3	0.32	—	681
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.08	0.25	0.33	0.01	< 0.005	—	0.59
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.95	0.95	< 0.005	< 0.005	—	0.96
Total	—	—	—	—	—	—	—	—	—	—	—	130	125	255	13.4	0.32	—	684
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.05	0.04	0.09	< 0.005	< 0.005	—	0.24

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	21.5	20.4	41.9	2.20	0.05	—	113
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.01	0.04	0.05	< 0.005	< 0.005	—	0.10
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.16	0.16	< 0.005	< 0.005	—	0.16
Total	—	—	—	—	—	—	—	—	—	—	—	21.5	20.7	42.2	2.21	0.05	—	113

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.40	0.00	0.40	0.04	0.00	—	1.41
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	148	0.00	148	14.8	0.00	—	519
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.47	0.00	0.47	0.05	0.00	—	1.63

Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	149	0.00	149	14.9	0.00	—	522
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.40	0.00	0.40	0.04	0.00	—	1.41
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	148	0.00	148	14.8	0.00	—	519
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.47	0.00	0.47	0.05	0.00	—	1.63
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	149	0.00	149	14.9	0.00	—	522
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.07	0.00	0.07	0.01	0.00	—	0.23
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	24.5	0.00	24.5	2.45	0.00	—	85.9

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.08	0.00	0.08	0.01	0.00	—	0.27
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	24.7	0.00	24.7	2.47	0.00	—	86.4

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

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

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	6/1/2025	6/13/2025	5.00	10.0	—
Grading	Grading	6/14/2025	8/1/2025	5.00	35.0	—
Building Construction	Building Construction	8/30/2025	1/29/2027	5.00	370	—
Paving	Paving	8/2/2025	8/29/2025	5.00	20.0	—
Architectural Coating	Architectural Coating	1/30/2027	2/26/2027	5.00	20.0	—

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	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
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
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
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	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
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	13.8	LDA,LDT1,LDT2
Site Preparation	Vendor	10.0	9.27	HHDT,MHDT

Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	13.8	LDA,LDT1,LDT2
Grading	Vendor	10.0	9.27	HHDT,MHDT
Grading	Hauling	11.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	149	13.8	LDA,LDT1,LDT2
Building Construction	Vendor	58.1	9.27	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	13.8	LDA,LDT1,LDT2
Paving	Vendor	10.0	9.27	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	29.8	13.8	LDA,LDT1,LDT2
Architectural Coating	Vendor	10.0	9.27	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

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction

Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

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	3,479	1,160	442,871	147,018	34,131

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	—	—	15.0	0.00	—
Grading	2,000	2,000	105	0.00	—
Paving	0.00	0.00	0.00	0.00	13.1

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
General Office Building	0.00	0%
Unrefrigerated Warehouse-No Rail	0.00	0%
Unrefrigerated Warehouse-No Rail	0.00	0%
Single Family Housing	0.01	0%
Enclosed Parking Structure	1.39	100%

Parking Lot	11.7	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	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005

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
General Office Building	8.72	1.78	0.56	2,394	128	26.0	8.23	35,031
Unrefrigerated Warehouse-No Rail	251	251	251	91,615	3,672	3,672	3,672	1,340,460
Unrefrigerated Warehouse-No Rail	174	174	174	63,510	2,546	2,546	2,546	929,243
Single Family Housing	9.43	9.48	8.48	3,395	139	139	125	49,894
Enclosed Parking Structure	13.0	13.0	13.0	4,745	190	190	190	69,426
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	1
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	1
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)
3478.95	1,160	442,871	147,018	34,131

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)
General Office Building	18,851	204	0.0330	0.0040	32,111
Unrefrigerated Warehouse-No Rail	1,856,109	204	0.0330	0.0040	921,875
Unrefrigerated Warehouse-No Rail	1,286,630	204	0.0330	0.0040	639,031
Single Family Housing	9,347	204	0.0330	0.0040	38,912
Enclosed Parking Structure	212,257	204	0.0330	0.0040	0.00
Parking Lot	445,214	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Office Building	142,898	0.00
Unrefrigerated Warehouse-No Rail	39,965,781	0.00
Unrefrigerated Warehouse-No Rail	27,703,750	0.00
Single Family Housing	41,177	182,902
Enclosed Parking Structure	0.00	0.00
Parking Lot	0.00	973,996

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Office Building	0.75	—
Unrefrigerated Warehouse-No Rail	162	—

Unrefrigerated Warehouse-No Rail	113	—
Single Family Housing	0.87	—
Enclosed Parking Structure	0.00	—
Parking Lot	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
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
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

5.16. 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)

8. User Changes to Default Data

Screen	Justification

Land Use	Phase 1 & 2 + RV storage Project site is approximately 20.12 gross acres
Construction: Construction Phases	Construction for Phases 1 & 2 + RV Storage Existing site is clear - no demolition Approximate construction start date for Phase 1: 06/01/2025 (applicant-provided information) Default phase durations retained
Operations: Hearths	SJVAPCD Rule 4901 Woodburning - no woodburning fireplaces
Operations: Vehicle Data	Project Trip Generation – Phases 1 and 2 Developed with RV Stroage Scenario Additional trips added for the single-family home (ITE 210) and general office building (ITE 710) - ITE 11th Edition rates

Phase 3 Construction and Removal of RV Storage Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Phase 3 Construction and Removal of RV Storage
Construction Start Date	2/27/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	16.0
Location	36.924933, -119.829353
County	Madera
City	Unincorporated
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2549
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.22

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
Unrefrigerated Warehouse-No Rail	84.8	1000sqft	1.95	84,850	0.00	—	—	Phase 3

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

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.	1.70	1.43	12.5	14.5	0.02	0.54	2.94	3.48	0.50	1.38	1.88	—	2,840	2,840	0.10	0.09	2.13	2,863
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.74	39.5	16.0	15.8	0.04	0.54	5.11	5.63	0.50	1.38	1.88	—	5,249	5,249	0.13	0.44	0.16	5,383
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.83	1.12	5.75	7.18	0.01	0.18	0.56	0.74	0.16	0.12	0.28	—	1,671	1,671	0.05	0.07	0.64	1,693
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.15	0.20	1.05	1.31	< 0.005	0.03	0.10	0.13	0.03	0.02	0.05	—	277	277	0.01	0.01	0.11	280

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	1.70	1.43	12.5	14.5	0.02	0.54	2.94	3.48	0.50	1.38	1.88	—	2,840	2,840	0.10	0.09	2.13	2,863
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.74	1.45	16.0	15.8	0.04	0.54	5.11	5.63	0.50	1.38	1.88	—	5,249	5,249	0.13	0.44	0.16	5,383
2028	1.27	39.5	8.49	11.3	0.02	0.24	0.45	0.69	0.22	0.11	0.33	—	2,507	2,507	0.09	0.08	0.05	2,534
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.83	0.70	5.75	7.18	0.01	0.18	0.56	0.74	0.16	0.12	0.28	—	1,671	1,671	0.05	0.07	0.64	1,693
2028	0.05	1.12	0.34	0.48	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.01	—	105	105	< 0.005	< 0.005	0.04	106
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.15	0.13	1.05	1.31	< 0.005	0.03	0.10	0.13	0.03	0.02	0.05	—	277	277	0.01	0.01	0.11	280
2028	0.01	0.20	0.06	0.09	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	17.4	17.4	< 0.005	< 0.005	0.01	17.6

3. Construction Emissions Details

3.1. Demolition (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	1.60	1.34	12.4	14.4	0.02	0.47	—	0.47	0.43	—	0.43	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	—	1.94	1.94	—	0.29	0.29	—	—	—	—	—	—	—

Onsite truck	0.01	0.01	0.23	0.15	< 0.005	< 0.005	2.32	2.32	< 0.005	0.23	0.23	—	42.8	42.8	< 0.005	0.01	< 0.005	44.9
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.07	0.68	0.79	< 0.005	0.03	—	0.03	0.02	—	0.02	—	137	137	0.01	< 0.005	—	137
Demolitio n	—	—	—	—	—	—	0.11	0.11	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.12	0.12	< 0.005	0.01	0.01	—	2.33	2.33	< 0.005	< 0.005	< 0.005	2.44
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolitio n	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.39	0.39	< 0.005	< 0.005	< 0.005	0.40
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.49	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	116	116	< 0.005	< 0.005	0.01	118
Vendor	0.01	0.01	0.35	0.12	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	280	280	< 0.005	0.04	0.02	292
Hauling	0.06	0.04	2.96	0.58	0.02	0.05	0.65	0.69	0.05	0.18	0.22	—	2,316	2,316	0.02	0.36	0.13	2,425
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	—	6.59	6.59	< 0.005	< 0.005	0.01	6.68
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.02	16.0
Hauling	< 0.005	< 0.005	0.16	0.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	127	127	< 0.005	0.02	0.12	133

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.54	2.54	< 0.005	< 0.005	< 0.005	2.65
Hauling	< 0.005	< 0.005	0.03	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

3.3. 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	1.42	1.19	10.4	11.6	0.02	0.47	—	0.47	0.43	—	0.43	—	2,065	2,065	0.08	0.02	—	2,072
Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.4
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	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

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.87	1.87	< 0.005	< 0.005	—	1.88
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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	69.8	69.8	< 0.005	< 0.005	0.01	70.7
Vendor	0.01	0.01	0.35	0.12	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	280	280	< 0.005	0.04	0.02	292
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.40	0.40	< 0.005	< 0.005	< 0.005	0.40
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.54	1.54	< 0.005	< 0.005	< 0.005	1.60
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.07	0.07	< 0.005	< 0.005	< 0.005	0.07
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.25	0.25	< 0.005	< 0.005	< 0.005	0.27
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

3.5. 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	1.63	1.37	12.2	13.9	0.02	0.54	—	0.54	0.50	—	0.50	—	2,455	2,455	0.10	0.02	—	2,464
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.63	1.37	12.2	13.9	0.02	0.54	—	0.54	0.50	—	0.50	—	2,455	2,455	0.10	0.02	—	2,464
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.13	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.9	26.9	< 0.005	< 0.005	—	27.0
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.46	4.46	< 0.005	< 0.005	—	4.47
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.51	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	104	104	< 0.005	< 0.005	0.35	106
Vendor	0.01	0.01	0.33	0.11	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	280	280	< 0.005	0.04	0.65	293
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.39	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	93.1	93.1	< 0.005	< 0.005	0.01	94.3
Vendor	0.01	0.01	0.35	0.12	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	280	280	< 0.005	0.04	0.02	292
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.05	1.05	< 0.005	< 0.005	< 0.005	1.07
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.07	3.07	< 0.005	< 0.005	< 0.005	3.21
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.17	0.17	< 0.005	< 0.005	< 0.005	0.18
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.53
Hauling	0.00	0.00	0.00	0.00	0.00	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. 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	1.17	0.97	8.25	9.91	0.02	0.26	—	0.26	0.24	—	0.24	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	1.17	0.97	8.25	9.91	0.02	0.26	—	0.26	0.24	—	0.24	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.51	4.36	5.23	0.01	0.14	—	0.14	0.13	—	0.13	—	952	952	0.04	0.01	—	955
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.80	0.96	< 0.005	0.03	—	0.03	0.02	—	0.02	—	158	158	0.01	< 0.005	—	158
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	1.83	0.00	0.00	0.35	0.35	0.00	0.08	0.08	—	372	372	0.01	0.01	1.23	378
Vendor	0.02	0.01	0.46	0.16	< 0.005	0.01	0.11	0.11	0.01	0.03	0.04	—	389	389	< 0.005	0.06	0.90	407
Hauling	0.00	0.00	0.00	0.00	0.00	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	1.40	0.00	0.00	0.35	0.35	0.00	0.08	0.08	—	332	332	0.01	0.01	0.03	336
Vendor	0.02	0.01	0.49	0.16	< 0.005	0.01	0.11	0.11	0.01	0.03	0.04	—	390	390	< 0.005	0.06	0.02	407
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.08	0.07	0.77	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	181	181	< 0.005	0.01	0.28	184
Vendor	0.01	0.01	0.25	0.09	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	206	206	< 0.005	0.03	0.20	215
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	30.0	30.0	< 0.005	< 0.005	0.05	30.4
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.1	34.1	< 0.005	< 0.005	0.03	35.6
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

3.9. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.12	0.93	7.89	9.88	0.02	0.23	—	0.23	0.21	—	0.21	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	38.8	38.8	< 0.005	< 0.005	—	38.9
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	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.42	6.42	< 0.005	< 0.005	—	6.44
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.13	1.29	0.00	0.00	0.35	0.35	0.00	0.08	0.08	—	325	325	0.01	0.01	0.03	330
Vendor	0.02	0.01	0.47	0.16	< 0.005	0.01	0.11	0.11	0.01	0.03	0.04	—	381	381	< 0.005	0.05	0.02	397
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	—	7.24	7.24	< 0.005	< 0.005	0.01	7.34
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.19	8.19	< 0.005	< 0.005	0.01	8.54
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	—	1.20	1.20	< 0.005	< 0.005	< 0.005	1.22
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.36	1.36	< 0.005	< 0.005	< 0.005	1.41
Hauling	0.00	0.00	0.00	0.00	0.00	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. 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	0.51	0.43	4.13	6.47	0.01	0.15	—	0.15	0.13	—	0.13	—	991	991	0.04	0.01	—	995
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	0.11	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.2	27.2	< 0.005	< 0.005	—	27.3
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	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.50	4.50	< 0.005	< 0.005	—	4.51
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	0.04	0.45	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	114	114	< 0.005	< 0.005	0.01	116
Vendor	0.01	0.01	0.34	0.11	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	274	274	< 0.005	0.04	0.01	285
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	—	3.23	3.23	< 0.005	< 0.005	< 0.005	3.28
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.49	7.49	< 0.005	< 0.005	0.01	7.82
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.29
Hauling	0.00	0.00	0.00	0.00	0.00	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. 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	—	39.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Architectural Coatings	—	1.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Architectural Coatings	—	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.26	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	65.1	65.1	< 0.005	< 0.005	0.01	65.9

Vendor	0.01	0.01	0.34	0.11	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	274	274	< 0.005	0.04	0.01	285
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	—	1.84	1.84	< 0.005	< 0.005	< 0.005	1.87
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.49	7.49	< 0.005	< 0.005	0.01	7.82
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.30	0.30	< 0.005	< 0.005	< 0.005	0.31
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.29
Hauling	0.00	0.00	0.00	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	2/27/2027	3/27/2027	5.00	20.0	—
Site Preparation	Site Preparation	3/28/2027	3/30/2027	5.00	2.00	—

Grading	Grading	3/31/2027	4/5/2027	5.00	4.00	—
Building Construction	Building Construction	4/6/2027	1/11/2028	5.00	200	—
Paving	Paving	1/12/2028	1/26/2028	5.00	10.0	—
Architectural Coating	Architectural Coating	1/27/2028	2/10/2028	5.00	10.0	—

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
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	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
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56

Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
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
Demolition	—	—	—	—
Demolition	Worker	12.5	13.8	LDA,LDT1,LDT2
Demolition	Vendor	10.0	9.27	HHDT,MHDT
Demolition	Hauling	34.9	20.0	HHDT
Demolition	Onsite truck	12.5	0.50	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	13.8	LDA,LDT1,LDT2
Site Preparation	Vendor	10.0	9.27	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	13.8	LDA,LDT1,LDT2
Grading	Vendor	10.0	9.27	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	35.6	13.8	LDA,LDT1,LDT2

Building Construction	Vendor	13.9	9.27	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	0.00	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	13.8	LDA,LDT1,LDT2
Paving	Vendor	10.0	9.27	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	7.13	13.8	LDA,LDT1,LDT2
Architectural Coating	Vendor	10.0	9.27	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

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

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	0.00	0.00	127,275	42,425	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	60,620	—
Site Preparation	—	—	1.88	0.00	—
Grading	—	—	4.00	0.00	—
Paving	0.00	0.00	0.00	0.00	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%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	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
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. 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)

8. User Changes to Default Data

Madera County Derrel's Mini Storage - Phases 1 - 3 (Operations) Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Madera County Derrel's Mini Storage - Phases 1 - 3 (Operations)
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	16.0
Location	36.924933, -119.829353
County	Madera
City	Unincorporated
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2549
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.22

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
General Office Building	0.80	1000sqft	0.02	804	0.00	—	—	—

Unrefrigerated Warehouse-No Rail	173	1000sqft	3.97	172,825	0.00	—	—	Phase 1
Unrefrigerated Warehouse-No Rail	120	1000sqft	2.75	119,800	0.00	—	—	Phase 2
Single Family Housing	1.00	Dwelling Unit	0.32	1,718	11,713	—	3.00	Residence + garage
Parking Lot	11.1	Acre	11.1	0.00	76,235	—	—	—
Unrefrigerated Warehouse-No Rail	84.8	1000sqft	1.95	84,850	0.00	—	—	Phase 3

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.	6.08	14.3	4.36	43.7	0.08	0.14	5.86	5.99	0.13	1.49	1.61	360	10,791	11,151	37.1	0.81	24.2	12,343
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.89	11.3	4.73	22.9	0.07	0.11	5.86	5.97	0.10	1.49	1.59	360	10,157	10,516	37.1	0.83	0.64	11,692
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.34	12.6	4.55	31.2	0.07	0.12	5.77	5.90	0.11	1.46	1.58	360	10,308	10,668	37.1	0.82	10.4	11,849
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.79	2.31	0.83	5.70	0.01	0.02	1.05	1.08	0.02	0.27	0.29	59.6	1,707	1,766	6.14	0.14	1.72	1,962

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	3.09	2.84	3.65	26.7	0.07	0.06	5.86	5.92	0.06	1.49	1.55	—	7,366	7,366	0.22	0.34	24.2	7,498
Area	2.93	11.4	0.15	16.5	< 0.005	0.03	—	0.03	0.02	—	0.02	0.00	78.3	78.3	< 0.005	< 0.005	—	78.6
Energy	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	3,186	3,186	0.47	0.05	—	3,213
Water	—	—	—	—	—	—	—	—	—	—	—	168	160	328	17.2	0.41	—	881
Waste	—	—	—	—	—	—	—	—	—	—	—	192	0.00	192	19.2	0.00	—	672
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	6.08	14.3	4.36	43.7	0.08	0.14	5.86	5.99	0.13	1.49	1.61	360	10,791	11,151	37.1	0.81	24.2	12,343
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.82	2.57	4.16	22.4	0.07	0.07	5.86	5.92	0.06	1.49	1.55	—	6,799	6,799	0.24	0.37	0.63	6,915
Area	< 0.005	8.69	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	10.5	10.5	< 0.005	< 0.005	—	10.5
Energy	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	3,186	3,186	0.47	0.05	—	3,213
Water	—	—	—	—	—	—	—	—	—	—	—	168	160	328	17.2	0.41	—	881
Waste	—	—	—	—	—	—	—	—	—	—	—	192	0.00	192	19.2	0.00	—	672
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	2.89	11.3	4.73	22.9	0.07	0.11	5.86	5.97	0.10	1.49	1.59	360	10,157	10,516	37.1	0.83	0.64	11,692
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.83	2.59	3.92	22.6	0.07	0.06	5.77	5.84	0.06	1.46	1.53	—	6,925	6,925	0.23	0.35	10.4	7,047
Area	1.45	10.0	0.07	8.14	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	35.8	35.8	< 0.005	< 0.005	—	35.9

Energy	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	3,186	3,186	0.47	0.05	—	3,213
Water	—	—	—	—	—	—	—	—	—	—	—	168	160	328	17.2	0.41	—	881
Waste	—	—	—	—	—	—	—	—	—	—	—	192	0.00	192	19.2	0.00	—	672
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	4.34	12.6	4.55	31.2	0.07	0.12	5.77	5.90	0.11	1.46	1.58	360	10,308	10,668	37.1	0.82	10.4	11,849
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.52	0.47	0.72	4.13	0.01	0.01	1.05	1.07	0.01	0.27	0.28	—	1,147	1,147	0.04	0.06	1.72	1,167
Area	0.26	1.83	0.01	1.49	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.93	5.93	< 0.005	< 0.005	—	5.95
Energy	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	528	528	0.08	0.01	—	532
Water	—	—	—	—	—	—	—	—	—	—	—	27.8	26.6	54.3	2.85	0.07	—	146
Waste	—	—	—	—	—	—	—	—	—	—	—	31.8	0.00	31.8	3.18	0.00	—	111
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.79	2.31	0.83	5.70	0.01	0.02	1.05	1.08	0.02	0.27	0.29	59.6	1,707	1,766	6.14	0.14	1.72	1,962

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.05	0.04	0.06	0.41	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.02	—	113	113	< 0.005	0.01	0.37	115

Unrefrigerated Warehou Rail	2.99	2.75	3.53	25.8	0.07	0.06	5.67	5.73	0.06	1.44	1.50	—	7,129	7,129	0.21	0.33	23.4	7,256
Single Family Housing	0.05	0.05	0.06	0.45	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.03	—	124	124	< 0.005	0.01	0.41	126
Parking Lot	0.00	0.00	0.00	0.00	0.00	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	3.09	2.84	3.65	26.7	0.07	0.06	5.86	5.92	0.06	1.49	1.55	—	7,366	7,366	0.22	0.34	24.2	7,498
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.04	0.04	0.06	0.34	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.02	—	105	105	< 0.005	0.01	0.01	106
Unrefrigerated Warehouse-No Rail	2.73	2.48	4.03	21.7	0.06	0.06	5.67	5.73	0.06	1.44	1.50	—	6,580	6,580	0.23	0.35	0.61	6,692
Single Family Housing	0.05	0.04	0.07	0.38	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.03	—	114	114	< 0.005	0.01	0.01	116
Parking Lot	0.00	0.00	0.00	0.00	0.00	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	2.82	2.57	4.16	22.4	0.07	0.07	5.86	5.92	0.06	1.49	1.55	—	6,799	6,799	0.24	0.37	0.63	6,915
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.01	0.01	0.01	0.05	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	13.3	13.3	< 0.005	< 0.005	0.02	13.6
Unrefrigerated Warehouse-No Rail	0.50	0.46	0.69	4.01	0.01	0.01	1.02	1.04	0.01	0.26	0.27	—	1,114	1,114	0.04	0.06	1.67	1,134

Single Family Housing	0.01	0.01	0.01	0.07	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	19.0	19.0	< 0.005	< 0.005	0.03	19.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	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	0.52	0.47	0.72	4.13	0.01	0.01	1.05	1.07	0.01	0.27	0.28	—	1,147	1,147	0.04	0.06	1.72	1,167

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	< 0.005	< 0.005	—	10.6
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,266	2,266	0.37	0.04	—	2,288
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	5.22	5.22	< 0.005	< 0.005	—	5.28
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	237	237	0.04	< 0.005	—	239
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,518	2,518	0.41	0.05	—	2,543
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	< 0.005	< 0.005	—	10.6
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,266	2,266	0.37	0.04	—	2,288
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	5.22	5.22	< 0.005	< 0.005	—	5.28
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	237	237	0.04	< 0.005	—	239
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,518	2,518	0.41	0.05	—	2,543
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	1.74	1.74	< 0.005	< 0.005	—	1.76
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	375	375	0.06	0.01	—	379
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.86	0.86	< 0.005	< 0.005	—	0.87
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	39.2	39.2	0.01	< 0.005	—	39.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	417	417	0.07	0.01	—	421

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Unrefrigerated Warehouse-No Rail	0.06	0.03	0.54	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	645	645	0.06	< 0.005	—	647
Single Family Housing	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.5	12.5	< 0.005	< 0.005	—	12.5
Parking Lot	0.00	0.00	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	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	668	668	0.06	< 0.005	—	670
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Unrefrigerated Warehouse-No Rail	0.06	0.03	0.54	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	645	645	0.06	< 0.005	—	647
Single Family Housing	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.5	12.5	< 0.005	< 0.005	—	12.5
Parking Lot	0.00	0.00	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	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	668	668	0.06	< 0.005	—	670
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.70	1.70	< 0.005	< 0.005	—	1.71
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	107	107	0.01	< 0.005	—	107
Single Family Housing	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.06	2.06	< 0.005	< 0.005	—	2.07
Parking Lot	0.00	0.00	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	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	111	111	0.01	< 0.005	—	111

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	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	10.5	10.5	< 0.005	< 0.005	—	10.5
Consumer Products	—	8.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.93	2.71	0.14	16.5	< 0.005	0.03	—	0.03	0.02	—	0.02	—	67.8	67.8	< 0.005	< 0.005	—	68.1

145

Total	2.93	11.4	0.15	16.5	< 0.005	0.03	—	0.03	0.02	—	0.02	0.00	78.3	78.3	< 0.005	< 0.005	—	78.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	10.5	10.5	< 0.005	< 0.005	—	10.5
Consumer Products	—	8.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	< 0.005	8.69	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	10.5	10.5	< 0.005	< 0.005	—	10.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	0.39	0.39	< 0.005	< 0.005	—	0.39
Consumer Products	—	1.49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.49	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.54	5.54	< 0.005	< 0.005	—	5.56
Total	0.26	1.83	0.01	1.49	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.93	5.93	< 0.005	< 0.005	—	5.95

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.27	0.26	0.53	0.03	< 0.005	—	1.44
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	167	159	326	17.2	0.41	—	878
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.08	0.25	0.33	0.01	< 0.005	—	0.59
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.95	0.95	< 0.005	< 0.005	—	0.96
Total	—	—	—	—	—	—	—	—	—	—	—	168	160	328	17.2	0.41	—	881
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.27	0.26	0.53	0.03	< 0.005	—	1.44
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	167	159	326	17.2	0.41	—	878
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.08	0.25	0.33	0.01	< 0.005	—	0.59
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.95	0.95	< 0.005	< 0.005	—	0.96
Total	—	—	—	—	—	—	—	—	—	—	—	168	160	328	17.2	0.41	—	881
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.05	0.04	0.09	< 0.005	< 0.005	—	0.24
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	27.7	26.3	54.0	2.84	0.07	—	145
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.01	0.04	0.05	< 0.005	< 0.005	—	0.10
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.16	0.16	< 0.005	< 0.005	—	0.16
Total	—	—	—	—	—	—	—	—	—	—	—	27.8	26.6	54.3	2.85	0.07	—	146

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.40	0.00	0.40	0.04	0.00	—	1.41
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	191	0.00	191	19.1	0.00	—	669
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.47	0.00	0.47	0.05	0.00	—	1.63

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	192	0.00	192	19.2	0.00	—	672
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.40	0.00	0.40	0.04	0.00	—	1.41
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	191	0.00	191	19.1	0.00	—	669
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.47	0.00	0.47	0.05	0.00	—	1.63
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	192	0.00	192	19.2	0.00	—	672
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.07	0.00	0.07	0.01	0.00	—	0.23
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	31.7	0.00	31.7	3.16	0.00	—	111
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.08	0.00	0.08	0.01	0.00	—	0.27
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	31.8	0.00	31.8	3.18	0.00	—	111

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
General Office Building	8.72	1.78	0.56	2,394	128	26.0	8.23	35,031
Unrefrigerated Warehouse-No Rail	251	251	251	91,615	3,672	3,672	3,672	1,340,460
Unrefrigerated Warehouse-No Rail	174	174	174	63,510	2,546	2,546	2,546	929,243
Single Family Housing	9.43	9.48	8.48	3,395	139	139	125	49,894
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unrefrigerated Warehouse-No Rail	123	123	123	44,895	1,800	1,800	1,800	656,879

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	1
Propane Fireplaces	0
Electric Fireplaces	0

No Fireplaces	1
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)
3478.95	1,160	567,419	189,140	29,040

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)
General Office Building	18,851	204	0.0330	0.0040	32,111
Unrefrigerated Warehouse-No Rail	1,856,109	204	0.0330	0.0040	921,875
Unrefrigerated Warehouse-No Rail	1,286,630	204	0.0330	0.0040	639,031
Single Family Housing	9,347	204	0.0330	0.0040	38,912
Parking Lot	423,989	204	0.0330	0.0040	0.00

Unrefrigerated Warehouse-No Rail	911,273	204	0.0330	0.0040	452,603

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Office Building	142,898	0.00
Unrefrigerated Warehouse-No Rail	39,965,781	0.00
Unrefrigerated Warehouse-No Rail	27,703,750	0.00
Single Family Housing	41,177	182,902
Parking Lot	0.00	973,996
Unrefrigerated Warehouse-No Rail	19,621,563	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Office Building	0.75	—
Unrefrigerated Warehouse-No Rail	162	—
Unrefrigerated Warehouse-No Rail	113	—
Single Family Housing	0.87	—
Parking Lot	0.00	—
Unrefrigerated Warehouse-No Rail	79.8	—

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
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
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

5.16. 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)

8. User Changes to Default Data

Screen	Justification
Land Use	Phase 1 - 3 (full project buildout) Project site is approximately 20.12 gross acres
Construction: Construction Phases	—
Operations: Hearths	SJVAPCD Rule 4901 Woodburning - no woodburning fireplaces
Operations: Vehicle Data	Project Trip Generation – Phases 1 - 3 Developed Additional trips added for the single-family home (ITE 210) and general office building (ITE 710) - ITE 11th Edition rates

Phases 1 & 2 + RV Storage Localized Analysis Custom Report

Table of Contents

5.18.2.1. Unmitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Phases 1 & 2 + RV Storage Localized Analysis
Construction Start Date	6/1/2025
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	16.0
Location	36.924933, -119.829353
County	Madera
City	Unincorporated
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2549
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.22

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

General Office Building	0.80	1000sqft	0.02	804	0.00	—	—	—
Unrefrigerated Warehouse-No Rail	173	1000sqft	3.97	172,825	0.00	—	—	Phase 1
Unrefrigerated Warehouse-No Rail	120	1000sqft	2.75	119,800	0.00	—	—	Phase 2
Single Family Housing	1.00	Dwelling Unit	0.32	1,718	11,713	—	3.00	Residence + garage
Enclosed Parking Structure	60.6	1000sqft	1.39	60,620	0.00	—	—	—
Parking Lot	11.7	Acre	11.7	0.00	76,235	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

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.	4.03	3.39	31.8	30.5	0.06	1.37	7.68	9.04	1.26	3.94	5.20	—	6,677	6,677	0.27	0.07	0.47	6,703
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.99	77.0	11.3	15.9	0.02	0.43	0.08	0.51	0.40	0.02	0.42	—	2,633	2,633	0.14	0.06	0.01	2,654
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.35	4.31	7.64	10.9	0.02	0.28	0.58	0.86	0.26	0.25	0.51	—	1,877	1,877	0.10	0.04	0.13	1,892

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.25	0.79	1.39	1.99	< 0.005	0.05	0.11	0.16	0.05	0.05	0.09	—	311	311	0.02	0.01	0.02	313

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	4.03	3.39	31.8	30.5	0.06	1.37	7.68	9.04	1.26	3.94	5.20	—	6,677	6,677	0.27	0.07	0.47	6,703
2026	1.96	1.73	10.7	15.0	0.02	0.38	0.08	0.46	0.35	0.02	0.37	—	2,632	2,632	0.13	0.06	0.43	2,652
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.99	1.74	11.3	15.9	0.02	0.43	0.08	0.51	0.40	0.02	0.42	—	2,633	2,633	0.14	0.06	0.01	2,654
2026	1.88	1.65	10.7	15.6	0.02	0.38	0.08	0.46	0.35	0.02	0.37	—	2,628	2,628	0.14	0.06	0.01	2,649
2027	1.80	77.0	10.3	15.4	0.02	0.34	0.08	0.41	0.31	0.02	0.33	—	2,623	2,623	0.14	0.06	0.01	2,644
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.03	0.97	6.91	7.91	0.01	0.28	0.58	0.86	0.26	0.25	0.51	—	1,510	1,510	0.07	0.02	0.06	1,518
2026	1.35	1.18	7.64	10.9	0.02	0.27	0.05	0.33	0.25	0.01	0.26	—	1,877	1,877	0.10	0.04	0.13	1,892
2027	0.12	4.31	0.63	0.94	< 0.005	0.02	0.01	0.03	0.02	< 0.005	0.02	—	158	158	0.01	< 0.005	0.01	160
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.19	0.18	1.26	1.44	< 0.005	0.05	0.11	0.16	0.05	0.05	0.09	—	250	250	0.01	< 0.005	0.01	251
2026	0.25	0.22	1.39	1.99	< 0.005	0.05	0.01	0.06	0.05	< 0.005	0.05	—	311	311	0.02	0.01	0.02	313
2027	0.02	0.79	0.12	0.17	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	26.2	26.2	< 0.005	< 0.005	< 0.005	26.5

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.	4.50	11.0	1.13	19.2	0.01	0.07	0.16	0.23	0.06	0.04	0.10	279	3,154	3,434	28.7	0.40	0.68	4,273
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.53	8.24	1.08	4.86	0.01	0.04	0.16	0.20	0.04	0.04	0.08	279	3,078	3,357	28.7	0.41	0.03	4,198
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.91	9.52	1.09	11.8	0.01	0.05	0.16	0.21	0.05	0.04	0.09	279	3,103	3,382	28.7	0.41	0.30	4,221
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.53	1.74	0.20	2.15	< 0.005	0.01	0.03	0.04	0.01	0.01	0.02	46.2	514	560	4.76	0.07	0.05	699

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	1.70	1.67	0.56	3.40	< 0.005	< 0.005	0.16	0.16	< 0.005	0.04	0.04	—	293	293	0.07	0.04	0.67	308
Area	2.75	9.32	0.14	15.5	< 0.005	0.03	—	0.03	0.02	—	0.02	0.00	74.0	74.0	< 0.005	< 0.005	—	74.2
Energy	0.05	0.02	0.44	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	2,663	2,663	0.39	0.04	—	2,685
Water	—	—	—	—	—	—	—	—	—	—	—	130	125	255	13.4	0.32	—	684
Waste	—	—	—	—	—	—	—	—	—	—	—	149	0.00	149	14.9	0.00	—	522
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	4.50	11.0	1.13	19.2	0.01	0.07	0.16	0.23	0.06	0.04	0.10	279	3,154	3,434	28.7	0.40	0.68	4,273

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.48	1.43	0.63	4.49	< 0.005	< 0.005	0.16	0.16	< 0.005	0.04	0.04	—	280	280	0.09	0.05	0.02	296
Area	< 0.005	6.78	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	10.5	10.5	< 0.005	< 0.005	—	10.5
Energy	0.05	0.02	0.44	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	2,663	2,663	0.39	0.04	—	2,685
Water	—	—	—	—	—	—	—	—	—	—	—	130	125	255	13.4	0.32	—	684
Waste	—	—	—	—	—	—	—	—	—	—	—	149	0.00	149	14.9	0.00	—	522
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	1.53	8.24	1.08	4.86	0.01	0.04	0.16	0.20	0.04	0.04	0.08	279	3,078	3,357	28.7	0.41	0.03	4,198
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.50	1.46	0.59	3.80	< 0.005	< 0.005	0.16	0.16	< 0.005	0.04	0.04	—	282	282	0.08	0.04	0.29	297
Area	1.35	8.03	0.07	7.62	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	33.7	33.7	< 0.005	< 0.005	—	33.8
Energy	0.05	0.02	0.44	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	2,663	2,663	0.39	0.04	—	2,685
Water	—	—	—	—	—	—	—	—	—	—	—	130	125	255	13.4	0.32	—	684
Waste	—	—	—	—	—	—	—	—	—	—	—	149	0.00	149	14.9	0.00	—	522
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	2.91	9.52	1.09	11.8	0.01	0.05	0.16	0.21	0.05	0.04	0.09	279	3,103	3,382	28.7	0.41	0.30	4,221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.27	0.27	0.11	0.69	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	46.6	46.6	0.01	0.01	0.05	49.1
Area	0.25	1.47	0.01	1.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.57	5.57	< 0.005	< 0.005	—	5.59
Energy	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	441	441	0.06	0.01	—	445
Water	—	—	—	—	—	—	—	—	—	—	—	21.5	20.7	42.2	2.21	0.05	—	113
Waste	—	—	—	—	—	—	—	—	—	—	—	24.7	0.00	24.7	2.47	0.00	—	86.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.53	1.74	0.20	2.15	< 0.005	0.01	0.03	0.04	0.01	0.01	0.02	46.2	514	560	4.76	0.07	0.05	699

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.87	0.83	< 0.005	0.04	—	0.04	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	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	0.02	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1

Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	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	0.02	0.20	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.98	9.98	< 0.005	< 0.005	0.03	10.6
Vendor	0.01	0.01	0.12	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	26.5	26.5	< 0.005	< 0.005	0.04	27.7
Hauling	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.28
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.73	0.73	< 0.005	< 0.005	< 0.005	0.76
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.05
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.12	0.12	< 0.005	< 0.005	< 0.005	0.13
Hauling	0.00	0.00	0.00	0.00	0.00	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 (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	3.80	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	—	—	—	—	—	—	3.59	3.59	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.31	2.85	2.71	0.01	0.12	—	0.12	0.11	—	0.11	—	633	633	0.03	0.01	—	635
Dust From Material Movement	—	—	—	—	—	—	0.34	0.34	—	0.14	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.52	0.50	< 0.005	0.02	—	0.02	0.02	—	0.02	—	105	105	< 0.005	< 0.005	—	105
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	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	0.09	0.09	0.02	0.23	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.4	11.4	< 0.005	< 0.005	0.03	12.1
Vendor	0.01	0.01	0.12	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	26.5	26.5	< 0.005	< 0.005	0.04	27.7
Hauling	0.01	0.01	0.19	0.13	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	39.8	39.8	< 0.005	0.01	0.05	41.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.04	1.04	< 0.005	< 0.005	< 0.005	1.11
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.55	2.55	< 0.005	< 0.005	< 0.005	2.67
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.84	3.84	< 0.005	< 0.005	< 0.005	4.02
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.17	0.17	< 0.005	< 0.005	< 0.005	0.18
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	0.44
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.64	0.64	< 0.005	< 0.005	< 0.005	0.67

3.5. 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	0.33	0.27	2.53	3.16	0.01	0.10	—	0.10	0.10	—	0.10	—	582	582	0.02	< 0.005	—	584
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.46	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	96.3	96.3	< 0.005	< 0.005	—	96.7
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.69	0.67	0.14	1.70	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	85.0	85.0	0.03	0.01	0.23	90.4
Vendor	0.04	0.03	0.69	0.46	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	154	154	0.01	0.02	0.25	161
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.60	0.58	0.17	2.33	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	79.9	79.9	0.04	0.01	0.01	85.3
Vendor	0.04	0.03	0.73	0.48	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	155	155	0.01	0.02	0.01	162
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.04	0.47	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	19.6	19.6	0.01	< 0.005	0.02	20.9
Vendor	0.01	0.01	0.17	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	37.5	37.5	< 0.005	0.01	0.03	39.2
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	0.03	0.03	0.01	0.09	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.25	3.25	< 0.005	< 0.005	< 0.005	3.47
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.21	6.21	< 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

3.7. 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	0.91	0.77	7.04	9.26	0.02	0.27	—	0.27	0.25	—	0.25	—	1,712	1,712	0.07	0.01	—	1,718

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.28	1.69	< 0.005	0.05	—	0.05	0.05	—	0.05	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.64	0.62	0.13	1.58	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	83.1	83.1	0.03	0.01	0.21	88.4
Vendor	0.04	0.03	0.68	0.45	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	151	151	0.01	0.02	0.23	158
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.55	0.16	2.17	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	78.1	78.1	0.04	0.01	0.01	83.5
Vendor	0.04	0.03	0.72	0.47	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	153	153	0.01	0.02	0.01	160
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.41	0.39	0.10	1.29	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	56.5	56.5	0.02	0.01	0.06	60.3
Vendor	0.03	0.02	0.50	0.33	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	108	108	0.01	0.02	0.07	113
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.02	0.24	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.36	9.36	< 0.005	< 0.005	0.01	9.99
Vendor	0.01	< 0.005	0.09	0.06	< 0.005	< 0.005	< 0.005	< 0.005	< 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

3.9. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.07	0.06	0.53	0.73	< 0.005	0.02	—	0.02	0.02	—	0.02	—	136	136	0.01	< 0.005	—	137
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.5	22.5	< 0.005	< 0.005	—	22.6
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.53	0.51	0.15	2.02	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	76.5	76.5	0.04	0.01	< 0.005	81.8
Vendor	0.04	0.03	0.71	0.47	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	150	150	0.01	0.02	0.01	157
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.01	0.10	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.40	4.40	< 0.005	< 0.005	< 0.005	4.69
Vendor	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.45	8.45	< 0.005	< 0.005	< 0.005	8.84
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.73	0.73	< 0.005	< 0.005	< 0.005	0.78
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.40	1.40	< 0.005	< 0.005	< 0.005	1.46
Hauling	0.00	0.00	0.00	0.00	0.00	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. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	1.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.05	0.04	0.41	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.01	0.17	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.56	8.56	< 0.005	< 0.005	0.02	9.10
Vendor	0.01	0.01	0.12	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	26.5	26.5	< 0.005	< 0.005	0.04	27.7
Hauling	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	0.45	0.45	< 0.005	< 0.005	< 0.005	0.48
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.46	1.46	< 0.005	< 0.005	< 0.005	1.52
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.07	0.07	< 0.005	< 0.005	< 0.005	0.08
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.24	0.24	< 0.005	< 0.005	< 0.005	0.25
Hauling	0.00	0.00	0.00	0.00	0.00	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. 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	—	76.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	4.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.03	0.40	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	15.3	15.3	0.01	< 0.005	< 0.005	16.4
Vendor	0.01	< 0.005	0.12	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	25.8	25.8	< 0.005	< 0.005	< 0.005	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.85	0.85	< 0.005	< 0.005	< 0.005	0.91
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.40	1.40	< 0.005	< 0.005	< 0.005	1.47
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.15
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.23	0.23	< 0.005	< 0.005	< 0.005	0.24
Hauling	0.00	0.00	0.00	0.00	0.00	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

4.1. Mobile Emissions by Land Use

4.1.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.03	0.03	0.01	0.06	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.60	5.60	< 0.005	< 0.005	0.01	5.88
Unrefrigerated Warehouse-No Rail	1.59	1.55	0.52	3.17	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	—	273	273	0.06	0.04	0.62	287
Single Family Housing	0.04	0.03	0.01	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.09	6.09	< 0.005	< 0.005	0.01	6.40
Enclosed Parking Structure	0.05	0.05	0.02	0.10	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.35	8.35	< 0.005	< 0.005	0.02	8.78
Parking Lot	0.00	0.00	0.00	0.00	0.00	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	1.70	1.67	0.56	3.40	< 0.005	< 0.005	0.16	0.16	< 0.005	0.04	0.04	—	293	293	0.07	0.04	0.67	308
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.03	0.03	0.01	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.36	5.36	< 0.005	< 0.005	< 0.005	5.66
Unrefrigerated Warehouse-No Rail	1.38	1.34	0.59	4.18	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.04	—	261	261	0.08	0.04	0.02	276
Single Family Housing	0.03	0.03	0.01	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.83	5.83	< 0.005	< 0.005	< 0.005	6.16
Enclosed Parking Structure	0.04	0.04	0.02	0.13	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.99	7.99	< 0.005	< 0.005	< 0.005	8.45

Parking Lot	0.00	0.00	0.00	0.00	0.00	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	1.48	1.43	0.63	4.49	< 0.005	< 0.005	0.16	0.16	< 0.005	0.04	0.04	—	280	280	0.09	0.05	0.02	296
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.67	0.67	< 0.005	< 0.005	< 0.005	0.71
Unrefrigerated Warehouse-No Rail	0.26	0.25	0.10	0.65	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	43.7	43.7	0.01	0.01	0.04	46.0
Single Family Housing	0.01	0.01	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.96	0.96	< 0.005	< 0.005	< 0.005	1.01
Enclosed Parking Structure	0.01	0.01	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.34	1.34	< 0.005	< 0.005	< 0.005	1.41
Parking Lot	0.00	0.00	0.00	0.00	0.00	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	0.27	0.27	0.11	0.69	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	46.6	46.6	0.01	0.01	0.05	49.1

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	< 0.005	< 0.005	—	10.6

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,756	1,756	0.28	0.03	—	1,774
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	5.22	5.22	< 0.005	< 0.005	—	5.28
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	119	119	0.02	< 0.005	—	120
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	249	249	0.04	< 0.005	—	251
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,140	2,140	0.35	0.04	—	2,161
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	< 0.005	< 0.005	—	10.6
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,756	1,756	0.28	0.03	—	1,774
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	5.22	5.22	< 0.005	< 0.005	—	5.28
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	119	119	0.02	< 0.005	—	120
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	249	249	0.04	< 0.005	—	251
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,140	2,140	0.35	0.04	—	2,161
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	1.74	1.74	< 0.005	< 0.005	—	1.76

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	291	291	0.05	0.01	—	294
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.86	0.86	< 0.005	< 0.005	—	0.87
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	19.6	19.6	< 0.005	< 0.005	—	19.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	41.2	41.2	0.01	< 0.005	—	41.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	354	354	0.06	0.01	—	358

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.42	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	500	500	0.04	< 0.005	—	502
Single Family Housing	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.5	12.5	< 0.005	< 0.005	—	12.5
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Parking Lot	0.00	0.00	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	0.02	0.44	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	523	523	0.05	< 0.005	—	524
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.42	0.35	< 0.005	0.03	—	0.03	0.03	—	0.03	—	500	500	0.04	< 0.005	—	502
Single Family Housing	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.5	12.5	< 0.005	< 0.005	—	12.5
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	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	0.02	0.44	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	523	523	0.05	< 0.005	—	524
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.70	1.70	< 0.005	< 0.005	—	1.71
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	82.8	82.8	0.01	< 0.005	—	83.1
Single Family Housing	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.06	2.06	< 0.005	< 0.005	—	2.07

Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	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	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	86.6	86.6	0.01	< 0.005	—	86.8

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	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	10.5	10.5	< 0.005	< 0.005	—	10.5
Consumer Products	—	6.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.75	2.53	0.13	15.5	< 0.005	0.03	—	0.03	0.02	—	0.02	—	63.5	63.5	< 0.005	< 0.005	—	63.7
Total	2.75	9.32	0.14	15.5	< 0.005	0.03	—	0.03	0.02	—	0.02	0.00	74.0	74.0	< 0.005	< 0.005	—	74.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	10.5	10.5	< 0.005	< 0.005	—	10.5

Consumer Products	—	6.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	< 0.005	6.78	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	10.5	10.5	< 0.005	< 0.005	—	10.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	0.39	0.39	< 0.005	< 0.005	—	0.39
Consumer Products	—	1.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.25	0.23	0.01	1.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.18	5.18	< 0.005	< 0.005	—	5.20
Total	0.25	1.47	0.01	1.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.57	5.57	< 0.005	< 0.005	—	5.59

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.27	0.26	0.53	0.03	< 0.005	—	1.44

Unrefrige Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	130	123	253	13.3	0.32	—	681
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.08	0.25	0.33	0.01	< 0.005	—	0.59
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.95	0.95	< 0.005	< 0.005	—	0.96
Total	—	—	—	—	—	—	—	—	—	—	—	130	125	255	13.4	0.32	—	684
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.27	0.26	0.53	0.03	< 0.005	—	1.44
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	130	123	253	13.3	0.32	—	681
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.08	0.25	0.33	0.01	< 0.005	—	0.59
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.95	0.95	< 0.005	< 0.005	—	0.96
Total	—	—	—	—	—	—	—	—	—	—	—	130	125	255	13.4	0.32	—	684
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.05	0.04	0.09	< 0.005	< 0.005	—	0.24

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	21.5	20.4	41.9	2.20	0.05	—	113
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.01	0.04	0.05	< 0.005	< 0.005	—	0.10
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.16	0.16	< 0.005	< 0.005	—	0.16
Total	—	—	—	—	—	—	—	—	—	—	—	21.5	20.7	42.2	2.21	0.05	—	113

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.40	0.00	0.40	0.04	0.00	—	1.41
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	148	0.00	148	14.8	0.00	—	519
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.47	0.00	0.47	0.05	0.00	—	1.63

Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	149	0.00	149	14.9	0.00	—	522
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.40	0.00	0.40	0.04	0.00	—	1.41
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	148	0.00	148	14.8	0.00	—	519
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.47	0.00	0.47	0.05	0.00	—	1.63
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	149	0.00	149	14.9	0.00	—	522
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.07	0.00	0.07	0.01	0.00	—	0.23
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	24.5	0.00	24.5	2.45	0.00	—	85.9

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.08	0.00	0.08	0.01	0.00	—	0.27
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	24.7	0.00	24.7	2.47	0.00	—	86.4

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

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

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	6/1/2025	6/13/2025	5.00	10.0	—
Grading	Grading	6/14/2025	8/1/2025	5.00	35.0	—
Building Construction	Building Construction	8/30/2025	1/29/2027	5.00	370	—
Paving	Paving	8/2/2025	8/29/2025	5.00	20.0	—
Architectural Coating	Architectural Coating	1/30/2027	2/26/2027	5.00	20.0	—

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	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
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
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
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	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
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	0.50	LDA,LDT1,LDT2
Site Preparation	Vendor	10.0	0.50	HHDT,MHDT

Site Preparation	Hauling	0.00	0.50	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	0.50	LDA,LDT1,LDT2
Grading	Vendor	10.0	0.50	HHDT,MHDT
Grading	Hauling	11.3	0.50	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	149	0.50	LDA,LDT1,LDT2
Building Construction	Vendor	58.1	0.50	HHDT,MHDT
Building Construction	Hauling	0.00	0.50	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	0.50	LDA,LDT1,LDT2
Paving	Vendor	10.0	0.50	HHDT,MHDT
Paving	Hauling	0.00	0.50	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	29.8	0.50	LDA,LDT1,LDT2
Architectural Coating	Vendor	10.0	0.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	0.50	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction

Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

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	3,479	1,160	442,871	147,018	34,131

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	—	—	15.0	0.00	—
Grading	2,000	2,000	105	0.00	—
Paving	0.00	0.00	0.00	0.00	13.1

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
General Office Building	0.00	0%
Unrefrigerated Warehouse-No Rail	0.00	0%
Unrefrigerated Warehouse-No Rail	0.00	0%
Single Family Housing	0.01	0%
Enclosed Parking Structure	1.39	100%

Parking Lot	11.7	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	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005

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
General Office Building	8.72	1.78	0.56	2,394	4.36	0.89	0.28	1,197
Unrefrigerated Warehouse-No Rail	251	251	251	91,615	126	126	126	45,808
Unrefrigerated Warehouse-No Rail	174	174	174	63,510	87.0	87.0	87.0	31,755
Single Family Housing	9.43	9.48	8.48	3,395	4.72	4.74	4.24	1,698
Enclosed Parking Structure	13.0	13.0	13.0	4,745	6.50	6.50	6.50	2,373
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	1
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	1
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)
3478.95	1,160	442,871	147,018	34,131

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)
General Office Building	18,851	204	0.0330	0.0040	32,111
Unrefrigerated Warehouse-No Rail	1,856,109	204	0.0330	0.0040	921,875
Unrefrigerated Warehouse-No Rail	1,286,630	204	0.0330	0.0040	639,031
Single Family Housing	9,347	204	0.0330	0.0040	38,912
Enclosed Parking Structure	212,257	204	0.0330	0.0040	0.00
Parking Lot	445,214	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Office Building	142,898	0.00
Unrefrigerated Warehouse-No Rail	39,965,781	0.00
Unrefrigerated Warehouse-No Rail	27,703,750	0.00
Single Family Housing	41,177	182,902
Enclosed Parking Structure	0.00	0.00
Parking Lot	0.00	973,996

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Office Building	0.75	—
Unrefrigerated Warehouse-No Rail	162	—

Unrefrigerated Warehouse-No Rail	113	—
Single Family Housing	0.87	—
Enclosed Parking Structure	0.00	—
Parking Lot	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
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
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

5.16. 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)

8. User Changes to Default Data

Screen	Justification

Land Use	Phase 1 & 2 + RV storage Project site is approximately 20.12 gross acres
Construction: Construction Phases	Construction for Phases 1 & 2 + RV Storage Existing site is clear - no demolition Approximate construction start date for Phase 1: 06/01/2025 (applicant-provided information) Default phase durations retained
Operations: Hearths	SJVAPCD Rule 4901 Woodburning - no woodburning fireplaces
Operations: Vehicle Data	Project Trip Generation – Phases 1 and 2 Developed with RV Stroage Scenario Trip lengths updated to 0.5 mile to account for on-site and localized emissions from mobile sources.
Construction: Trips and VMT	Trip lengths updated to 0.5 mile to account for on-site and localized emissions from construction vehicles.

Phase 3 Construction and Removal of RV Storage - Localized Analysis Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Phase 3 Construction and Removal of RV Storage - Localized Analysis
Construction Start Date	2/27/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	16.0
Location	36.924933, -119.829353
County	Madera
City	Unincorporated
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2549
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.22

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
Unrefrigerated Warehouse-No Rail	84.8	1000sqft	1.95	84,850	0.00	—	—	Phase 3

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

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.	1.68	1.42	12.3	14.0	0.02	0.54	2.77	3.31	0.50	1.34	1.83	—	2,486	2,486	0.10	0.02	0.09	2,496
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.70	39.5	13.4	15.3	0.03	0.54	4.28	4.76	0.50	1.34	1.83	—	2,688	2,688	0.11	0.05	0.01	2,706
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.81	1.12	5.39	6.56	0.01	0.17	0.28	0.46	0.16	0.05	0.21	—	1,166	1,166	0.05	0.02	0.03	1,172
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.15	0.20	0.98	1.20	< 0.005	0.03	0.05	0.08	0.03	0.01	0.04	—	193	193	0.01	< 0.005	< 0.005	194

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	1.68	1.42	12.3	14.0	0.02	0.54	2.77	3.31	0.50	1.34	1.83	—	2,486	2,486	0.10	0.02	0.09	2,496
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.70	1.43	13.4	15.3	0.03	0.54	4.28	4.76	0.50	1.34	1.83	—	2,688	2,688	0.11	0.05	0.01	2,706
2028	1.24	39.5	8.09	10.4	0.02	0.23	0.02	0.25	0.21	< 0.005	0.22	—	1,854	1,854	0.08	0.02	< 0.005	1,863
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.81	0.68	5.39	6.56	0.01	0.17	0.28	0.46	0.16	0.05	0.21	—	1,166	1,166	0.05	0.02	0.03	1,172
2028	0.05	1.12	0.32	0.44	< 0.005	0.01	< 0.005	0.01	0.01	< 0.005	0.01	—	72.4	72.4	< 0.005	< 0.005	< 0.005	72.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.15	0.12	0.98	1.20	< 0.005	0.03	0.05	0.08	0.03	0.01	0.04	—	193	193	0.01	< 0.005	< 0.005	194
2028	0.01	0.20	0.06	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.0	12.0	< 0.005	< 0.005	< 0.005	12.0

3. Construction Emissions Details

3.1. Demolition (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	1.60	1.34	12.4	14.4	0.02	0.47	—	0.47	0.43	—	0.43	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	—	1.94	1.94	—	0.29	0.29	—	—	—	—	—	—	—

Onsite truck	0.01	0.01	0.23	0.15	< 0.005	< 0.005	2.32	2.32	< 0.005	0.23	0.23	—	42.8	42.8	< 0.005	0.01	< 0.005	44.9
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.07	0.68	0.79	< 0.005	0.03	—	0.03	0.02	—	0.02	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	—	0.11	0.11	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.12	0.12	< 0.005	0.01	0.01	—	2.33	2.33	< 0.005	< 0.005	< 0.005	2.44
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.39	0.39	< 0.005	< 0.005	< 0.005	0.40
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.01	0.17	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	6.42	6.42	< 0.005	< 0.005	< 0.005	6.86
Vendor	0.01	< 0.005	0.12	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	25.8	25.8	< 0.005	< 0.005	< 0.005	26.9
Hauling	0.03	0.03	0.63	0.42	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	119	119	0.01	0.02	< 0.005	125
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	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.38
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.40	1.40	< 0.005	< 0.005	< 0.005	1.47
Hauling	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.49	6.49	< 0.005	< 0.005	< 0.005	6.81

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.23	0.23	< 0.005	< 0.005	< 0.005	0.24
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.08	1.08	< 0.005	< 0.005	< 0.005	1.13

3.3. 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	1.42	1.19	10.4	11.6	0.02	0.47	—	0.47	0.43	—	0.43	—	2,065	2,065	0.08	0.02	—	2,072
Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.4
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	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

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.87	1.87	< 0.005	< 0.005	—	1.88
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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.01	0.10	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.85	3.85	< 0.005	< 0.005	< 0.005	4.12
Vendor	0.01	< 0.005	0.12	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	25.8	25.8	< 0.005	< 0.005	< 0.005	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.15
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	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	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Hauling	0.00	0.00	0.00	0.00	0.00	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. 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	1.63	1.37	12.2	13.9	0.02	0.54	—	0.54	0.50	—	0.50	—	2,455	2,455	0.10	0.02	—	2,464
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.63	1.37	12.2	13.9	0.02	0.54	—	0.54	0.50	—	0.50	—	2,455	2,455	0.10	0.02	—	2,464
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.13	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.9	26.9	< 0.005	< 0.005	—	27.0
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.46	4.46	< 0.005	< 0.005	—	4.47
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.01	0.10	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	5.47	5.47	< 0.005	< 0.005	0.01	5.82
Vendor	0.01	0.01	0.12	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	25.5	25.5	< 0.005	< 0.005	0.03	26.7
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.03	0.01	0.14	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	5.13	5.13	< 0.005	< 0.005	< 0.005	5.49
Vendor	0.01	< 0.005	0.12	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	25.8	25.8	< 0.005	< 0.005	< 0.005	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.28	0.28	< 0.005	< 0.005	< 0.005	0.29
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.05
Hauling	0.00	0.00	0.00	0.00	0.00	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. 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	1.17	0.97	8.25	9.91	0.02	0.26	—	0.26	0.24	—	0.24	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	1.17	0.97	8.25	9.91	0.02	0.26	—	0.26	0.24	—	0.24	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.51	4.36	5.23	0.01	0.14	—	0.14	0.13	—	0.13	—	952	952	0.04	0.01	—	955
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.80	0.96	< 0.005	0.03	—	0.03	0.02	—	0.02	—	158	158	0.01	< 0.005	—	158
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.03	0.35	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	19.5	19.5	0.01	< 0.005	0.04	20.7
Vendor	0.01	0.01	0.16	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.5	35.5	< 0.005	0.01	0.05	37.2
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.04	0.48	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	18.3	18.3	0.01	< 0.005	< 0.005	19.6
Vendor	0.01	0.01	0.17	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.8	35.8	< 0.005	0.01	< 0.005	37.5
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.02	0.21	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.79	9.79	< 0.005	< 0.005	0.01	10.5
Vendor	< 0.005	< 0.005	0.09	0.06	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	18.8	18.8	< 0.005	< 0.005	0.01	19.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.04	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.62	1.62	< 0.005	< 0.005	< 0.005	1.73
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.12	3.12	< 0.005	< 0.005	< 0.005	3.26
Hauling	0.00	0.00	0.00	0.00	0.00	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. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.12	0.93	7.89	9.88	0.02	0.23	—	0.23	0.21	—	0.21	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	38.8	38.8	< 0.005	< 0.005	—	38.9
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	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.42	6.42	< 0.005	< 0.005	—	6.44
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.12	0.03	0.45	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	17.9	17.9	0.01	< 0.005	< 0.005	19.2
Vendor	0.01	0.01	0.17	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.1	35.1	< 0.005	0.01	< 0.005	36.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.39	0.39	< 0.005	< 0.005	< 0.005	0.42
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.75	0.75	< 0.005	< 0.005	< 0.005	0.79
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.07
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.12	0.12	< 0.005	< 0.005	< 0.005	0.13
Hauling	0.00	0.00	0.00	0.00	0.00	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. 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	0.51	0.43	4.13	6.47	0.01	0.15	—	0.15	0.13	—	0.13	—	991	991	0.04	0.01	—	995
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	0.11	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	27.2	27.2	< 0.005	< 0.005	—	27.3
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	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.50	4.50	< 0.005	< 0.005	—	4.51
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	0.01	0.16	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	6.28	6.28	< 0.005	< 0.005	< 0.005	6.72
Vendor	0.01	< 0.005	0.12	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	25.2	25.2	< 0.005	< 0.005	< 0.005	26.4
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	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.17	0.17	< 0.005	< 0.005	< 0.005	0.19
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.69	0.69	< 0.005	< 0.005	< 0.005	0.72
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	0.12
Hauling	0.00	0.00	0.00	0.00	0.00	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. 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	—	39.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Architectural Coatings	—	1.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Architectural Coatings	—	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.09	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.58	3.58	< 0.005	< 0.005	< 0.005	3.83

Vendor	0.01	< 0.005	0.12	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	25.2	25.2	< 0.005	< 0.005	< 0.005	26.4
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	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.10	0.10	< 0.005	< 0.005	< 0.005	0.11
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.69	0.69	< 0.005	< 0.005	< 0.005	0.72
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	0.12
Hauling	0.00	0.00	0.00	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	2/27/2027	3/27/2027	5.00	20.0	—
Site Preparation	Site Preparation	3/28/2027	3/30/2027	5.00	2.00	—

Grading	Grading	3/31/2027	4/5/2027	5.00	4.00	—
Building Construction	Building Construction	4/6/2027	1/11/2028	5.00	200	—
Paving	Paving	1/12/2028	1/26/2028	5.00	10.0	—
Architectural Coating	Architectural Coating	1/27/2028	2/10/2028	5.00	10.0	—

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
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	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
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56

Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
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
Demolition	—	—	—	—
Demolition	Worker	12.5	0.50	LDA,LDT1,LDT2
Demolition	Vendor	10.0	0.50	HHDT,MHDT
Demolition	Hauling	34.9	0.50	HHDT
Demolition	Onsite truck	12.5	0.50	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	0.50	LDA,LDT1,LDT2
Site Preparation	Vendor	10.0	0.50	HHDT,MHDT
Site Preparation	Hauling	0.00	0.50	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	0.50	LDA,LDT1,LDT2
Grading	Vendor	10.0	0.50	HHDT,MHDT
Grading	Hauling	0.00	0.50	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	35.6	0.50	LDA,LDT1,LDT2

Building Construction	Vendor	13.9	0.50	HHDT,MHDT
Building Construction	Hauling	0.00	0.50	HHDT
Building Construction	Onsite truck	0.00	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	0.50	LDA,LDT1,LDT2
Paving	Vendor	10.0	0.50	HHDT,MHDT
Paving	Hauling	0.00	0.50	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	7.13	0.50	LDA,LDT1,LDT2
Architectural Coating	Vendor	10.0	0.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	0.50	HHDT
Architectural Coating	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%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

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	0.00	0.00	127,275	42,425	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	60,620	—
Site Preparation	—	—	1.88	0.00	—
Grading	—	—	4.00	0.00	—
Paving	0.00	0.00	0.00	0.00	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%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	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
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. 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)

8. User Changes to Default Data

Screen	Justification
Construction: Trips and VMT	Trip lengths updated to 0.5 mile to account for on-site and localized emissions from construction vehicles.

Phases 1 - 3 (Operations) - Localized Analysis Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Phases 1 - 3 (Operations) - Localized Analysis
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	16.0
Location	36.924933, -119.829353
County	Madera
City	Unincorporated
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2549
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.22

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
General Office Building	0.80	1000sqft	0.02	804	0.00	—	—	—

Unrefrigerated Warehouse-No Rail	173	1000sqft	3.97	172,825	0.00	—	—	Phase 1
Unrefrigerated Warehouse-No Rail	120	1000sqft	2.75	119,800	0.00	—	—	Phase 2
Single Family Housing	1.00	Dwelling Unit	0.32	1,718	11,713	—	3.00	Residence + garage
Parking Lot	11.1	Acre	11.1	0.00	76,235	—	—	—
Unrefrigerated Warehouse-No Rail	84.8	1000sqft	1.95	84,850	0.00	—	—	Phase 3

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.	5.11	13.5	1.40	21.2	0.01	0.08	0.20	0.28	0.07	0.05	0.12	360	3,789	4,149	37.0	0.52	0.84	5,227
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.90	10.5	1.35	6.04	0.01	0.05	0.20	0.25	0.05	0.05	0.10	360	3,705	4,065	37.0	0.52	0.04	5,145
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.38	11.9	1.36	13.3	0.01	0.06	0.20	0.26	0.06	0.05	0.11	360	3,733	4,092	37.0	0.52	0.37	5,171
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.62	2.17	0.25	2.43	< 0.005	0.01	0.04	0.05	0.01	0.01	0.02	59.6	618	678	6.12	0.09	0.06	856

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	2.11	2.07	0.69	4.22	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.06	—	364	364	0.08	0.05	0.83	382
Area	2.93	11.4	0.15	16.5	< 0.005	0.03	—	0.03	0.02	—	0.02	0.00	78.3	78.3	< 0.005	< 0.005	—	78.6
Energy	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	3,186	3,186	0.47	0.05	—	3,213
Water	—	—	—	—	—	—	—	—	—	—	—	168	160	328	17.2	0.41	—	881
Waste	—	—	—	—	—	—	—	—	—	—	—	192	0.00	192	19.2	0.00	—	672
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	5.11	13.5	1.40	21.2	0.01	0.08	0.20	0.28	0.07	0.05	0.12	360	3,789	4,149	37.0	0.52	0.84	5,227
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.84	1.78	0.78	5.58	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.06	—	348	348	0.11	0.06	0.02	368
Area	< 0.005	8.69	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	10.5	10.5	< 0.005	< 0.005	—	10.5
Energy	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	3,186	3,186	0.47	0.05	—	3,213
Water	—	—	—	—	—	—	—	—	—	—	—	168	160	328	17.2	0.41	—	881
Waste	—	—	—	—	—	—	—	—	—	—	—	192	0.00	192	19.2	0.00	—	672
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	1.90	10.5	1.35	6.04	0.01	0.05	0.20	0.25	0.05	0.05	0.10	360	3,705	4,065	37.0	0.52	0.04	5,145
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.87	1.81	0.73	4.72	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	350	350	0.10	0.05	0.36	369
Area	1.45	10.0	0.07	8.14	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	35.8	35.8	< 0.005	< 0.005	—	35.9

Energy	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	3,186	3,186	0.47	0.05	—	3,213
Water	—	—	—	—	—	—	—	—	—	—	—	168	160	328	17.2	0.41	—	881
Waste	—	—	—	—	—	—	—	—	—	—	—	192	0.00	192	19.2	0.00	—	672
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	3.38	11.9	1.36	13.3	0.01	0.06	0.20	0.26	0.06	0.05	0.11	360	3,733	4,092	37.0	0.52	0.37	5,171
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.34	0.33	0.13	0.86	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	57.9	57.9	0.02	0.01	0.06	61.0
Area	0.26	1.83	0.01	1.49	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.93	5.93	< 0.005	< 0.005	—	5.95
Energy	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	528	528	0.08	0.01	—	532
Water	—	—	—	—	—	—	—	—	—	—	—	27.8	26.6	54.3	2.85	0.07	—	146
Waste	—	—	—	—	—	—	—	—	—	—	—	31.8	0.00	31.8	3.18	0.00	—	111
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.62	2.17	0.25	2.43	< 0.005	0.01	0.04	0.05	0.01	0.01	0.02	59.6	618	678	6.12	0.09	0.06	856

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.03	0.03	0.01	0.06	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.60	5.60	< 0.005	< 0.005	0.01	5.88

240

Unrefrigerated Warehou Rail	2.04	2.00	0.67	4.08	< 0.005	< 0.005	0.19	0.20	< 0.005	0.05	0.05	—	352	352	0.08	0.05	0.80	370
Single Family Housing	0.04	0.03	0.01	0.07	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.09	6.09	< 0.005	< 0.005	0.01	6.40
Parking Lot	0.00	0.00	0.00	0.00	0.00	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	2.11	2.07	0.69	4.22	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.06	—	364	364	0.08	0.05	0.83	382
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.03	0.03	0.01	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.36	5.36	< 0.005	< 0.005	< 0.005	5.66
Unrefrigerated Warehouse-No Rail	1.78	1.72	0.76	5.40	< 0.005	< 0.005	0.19	0.20	< 0.005	0.05	0.05	—	337	337	0.11	0.06	0.02	356
Single Family Housing	0.03	0.03	0.01	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.83	5.83	< 0.005	< 0.005	< 0.005	6.16
Parking Lot	0.00	0.00	0.00	0.00	0.00	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	1.84	1.78	0.78	5.58	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.06	—	348	348	0.11	0.06	0.02	368
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.67	0.67	< 0.005	< 0.005	< 0.005	0.71
Unrefrigerated Warehouse-No Rail	0.33	0.32	0.13	0.84	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	56.3	56.3	0.02	0.01	0.06	59.3

Single Family Housing	0.01	0.01	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.96	0.96	< 0.005	< 0.005	< 0.005	1.01
Parking Lot	0.00	0.00	0.00	0.00	0.00	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	0.34	0.33	0.13	0.86	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	57.9	57.9	0.02	0.01	0.06	61.0

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	< 0.005	< 0.005	—	10.6
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,266	2,266	0.37	0.04	—	2,288
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	5.22	5.22	< 0.005	< 0.005	—	5.28
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	237	237	0.04	< 0.005	—	239
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,518	2,518	0.41	0.05	—	2,543
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	10.5	10.5	< 0.005	< 0.005	—	10.6
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,266	2,266	0.37	0.04	—	2,288
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	5.22	5.22	< 0.005	< 0.005	—	5.28
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	237	237	0.04	< 0.005	—	239
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,518	2,518	0.41	0.05	—	2,543
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	1.74	1.74	< 0.005	< 0.005	—	1.76
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	375	375	0.06	0.01	—	379
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	0.86	0.86	< 0.005	< 0.005	—	0.87
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	39.2	39.2	0.01	< 0.005	—	39.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	417	417	0.07	0.01	—	421

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Unrefrigerated Warehouse-No Rail	0.06	0.03	0.54	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	645	645	0.06	< 0.005	—	647
Single Family Housing	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.5	12.5	< 0.005	< 0.005	—	12.5
Parking Lot	0.00	0.00	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	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	668	668	0.06	< 0.005	—	670
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.3	10.3	< 0.005	< 0.005	—	10.3
Unrefrigerated Warehouse-No Rail	0.06	0.03	0.54	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	645	645	0.06	< 0.005	—	647
Single Family Housing	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.5	12.5	< 0.005	< 0.005	—	12.5
Parking Lot	0.00	0.00	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	0.06	0.03	0.56	0.47	< 0.005	0.04	—	0.04	0.04	—	0.04	—	668	668	0.06	< 0.005	—	670
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.70	1.70	< 0.005	< 0.005	—	1.71
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	107	107	0.01	< 0.005	—	107
Single Family Housing	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.06	2.06	< 0.005	< 0.005	—	2.07
Parking Lot	0.00	0.00	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	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	111	111	0.01	< 0.005	—	111

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	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	10.5	10.5	< 0.005	< 0.005	—	10.5
Consumer Products	—	8.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.93	2.71	0.14	16.5	< 0.005	0.03	—	0.03	0.02	—	0.02	—	67.8	67.8	< 0.005	< 0.005	—	68.1

Total	2.93	11.4	0.15	16.5	< 0.005	0.03	—	0.03	0.02	—	0.02	0.00	78.3	78.3	< 0.005	< 0.005	—	78.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	10.5	10.5	< 0.005	< 0.005	—	10.5
Consumer Products	—	8.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	< 0.005	8.69	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	10.5	10.5	< 0.005	< 0.005	—	10.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	0.39	0.39	< 0.005	< 0.005	—	0.39
Consumer Products	—	1.49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.49	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.54	5.54	< 0.005	< 0.005	—	5.56
Total	0.26	1.83	0.01	1.49	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	5.93	5.93	< 0.005	< 0.005	—	5.95

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.27	0.26	0.53	0.03	< 0.005	—	1.44
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	167	159	326	17.2	0.41	—	878
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.08	0.25	0.33	0.01	< 0.005	—	0.59
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.95	0.95	< 0.005	< 0.005	—	0.96
Total	—	—	—	—	—	—	—	—	—	—	—	168	160	328	17.2	0.41	—	881
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.27	0.26	0.53	0.03	< 0.005	—	1.44
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	167	159	326	17.2	0.41	—	878
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.08	0.25	0.33	0.01	< 0.005	—	0.59
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.95	0.95	< 0.005	< 0.005	—	0.96
Total	—	—	—	—	—	—	—	—	—	—	—	168	160	328	17.2	0.41	—	881
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.05	0.04	0.09	< 0.005	< 0.005	—	0.24
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	27.7	26.3	54.0	2.84	0.07	—	145
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.01	0.04	0.05	< 0.005	< 0.005	—	0.10
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.16	0.16	< 0.005	< 0.005	—	0.16
Total	—	—	—	—	—	—	—	—	—	—	—	27.8	26.6	54.3	2.85	0.07	—	146

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.40	0.00	0.40	0.04	0.00	—	1.41
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	191	0.00	191	19.1	0.00	—	669
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.47	0.00	0.47	0.05	0.00	—	1.63

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	192	0.00	192	19.2	0.00	—	672
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.40	0.00	0.40	0.04	0.00	—	1.41
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	191	0.00	191	19.1	0.00	—	669
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.47	0.00	0.47	0.05	0.00	—	1.63
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	192	0.00	192	19.2	0.00	—	672
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.07	0.00	0.07	0.01	0.00	—	0.23
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	31.7	0.00	31.7	3.16	0.00	—	111
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.08	0.00	0.08	0.01	0.00	—	0.27
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	31.8	0.00	31.8	3.18	0.00	—	111

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

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
General Office Building	8.72	1.78	0.56	2,394	4.36	0.89	0.28	1,197
Unrefrigerated Warehouse-No Rail	251	251	251	91,615	126	126	126	45,808
Unrefrigerated Warehouse-No Rail	174	174	174	63,510	87.0	87.0	87.0	31,755
Single Family Housing	9.43	9.48	8.48	3,395	4.72	4.74	4.24	1,698
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unrefrigerated Warehouse-No Rail	123	123	123	44,895	61.5	61.5	61.5	22,447

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	1
Propane Fireplaces	0
Electric Fireplaces	0

No Fireplaces	1
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)
3478.95	1,160	567,419	189,140	29,040

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)
General Office Building	18,851	204	0.0330	0.0040	32,111
Unrefrigerated Warehouse-No Rail	1,856,109	204	0.0330	0.0040	921,875
Unrefrigerated Warehouse-No Rail	1,286,630	204	0.0330	0.0040	639,031
Single Family Housing	9,347	204	0.0330	0.0040	38,912
Parking Lot	423,989	204	0.0330	0.0040	0.00

Unrefrigerated Warehouse-No Rail	911,273	204	0.0330	0.0040	452,603

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Office Building	142,898	0.00
Unrefrigerated Warehouse-No Rail	39,965,781	0.00
Unrefrigerated Warehouse-No Rail	27,703,750	0.00
Single Family Housing	41,177	182,902
Parking Lot	0.00	973,996
Unrefrigerated Warehouse-No Rail	19,621,563	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Office Building	0.75	—
Unrefrigerated Warehouse-No Rail	162	—
Unrefrigerated Warehouse-No Rail	113	—
Single Family Housing	0.87	—
Parking Lot	0.00	—
Unrefrigerated Warehouse-No Rail	79.8	—

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
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
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

5.16. 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)

8. User Changes to Default Data

Screen	Justification
Land Use	Phase 1 - 3 (full project buildout) Project site is approximately 20.12 gross acres
Construction: Construction Phases	—
Operations: Hearths	SJVAPCD Rule 4901 Woodburning - no woodburning fireplaces
Operations: Vehicle Data	Project Trip Generation – Phases 1 - 3 Developed Trip lengths updated to 0.5 mile to account for on-site and localized emissions from mobile sources.

ATTACHMENT B

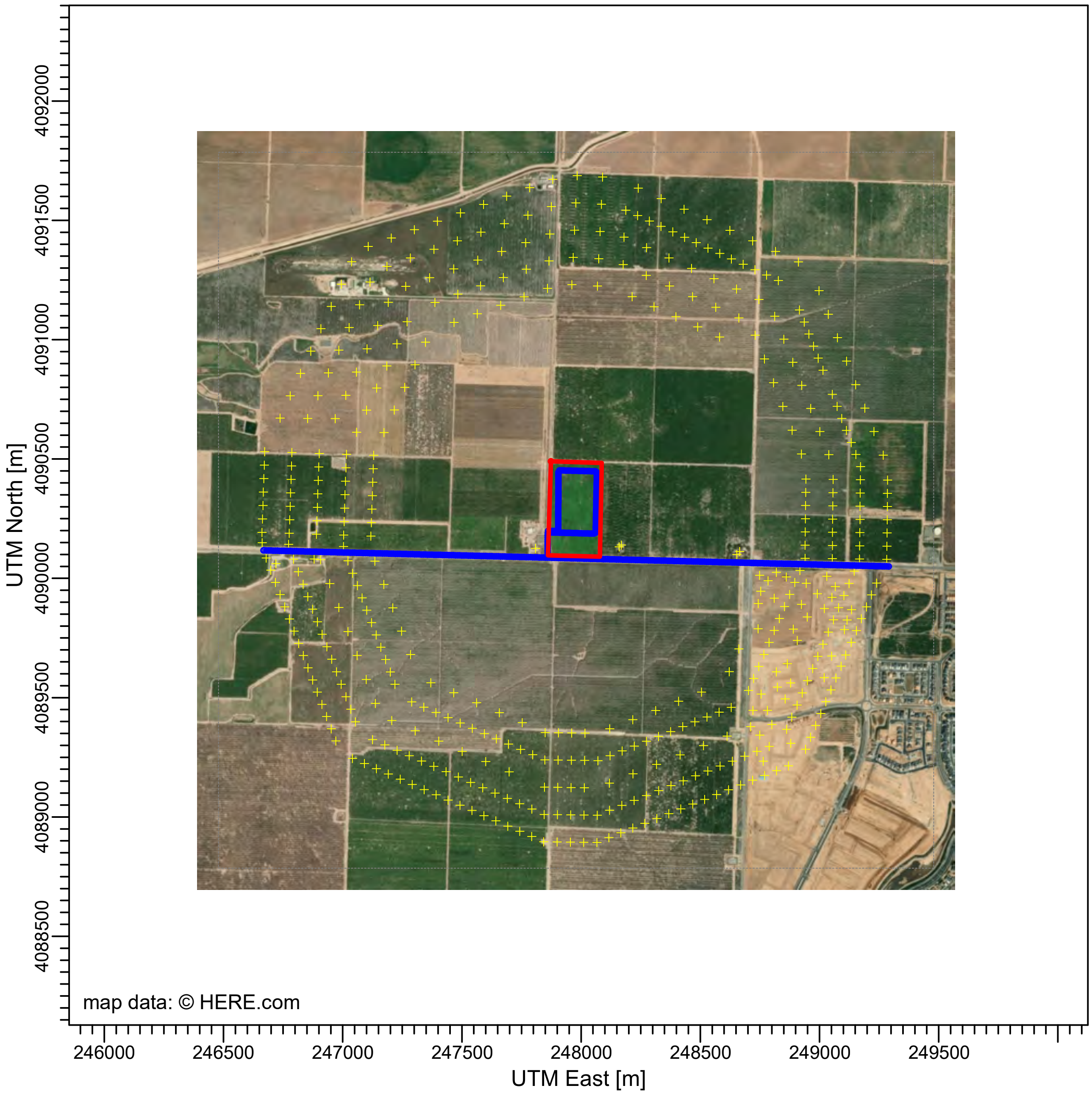
Health Risk Assessment and Health Risk Screening

Health Risk Assessment

General Parameters

PROJECT TITLE:

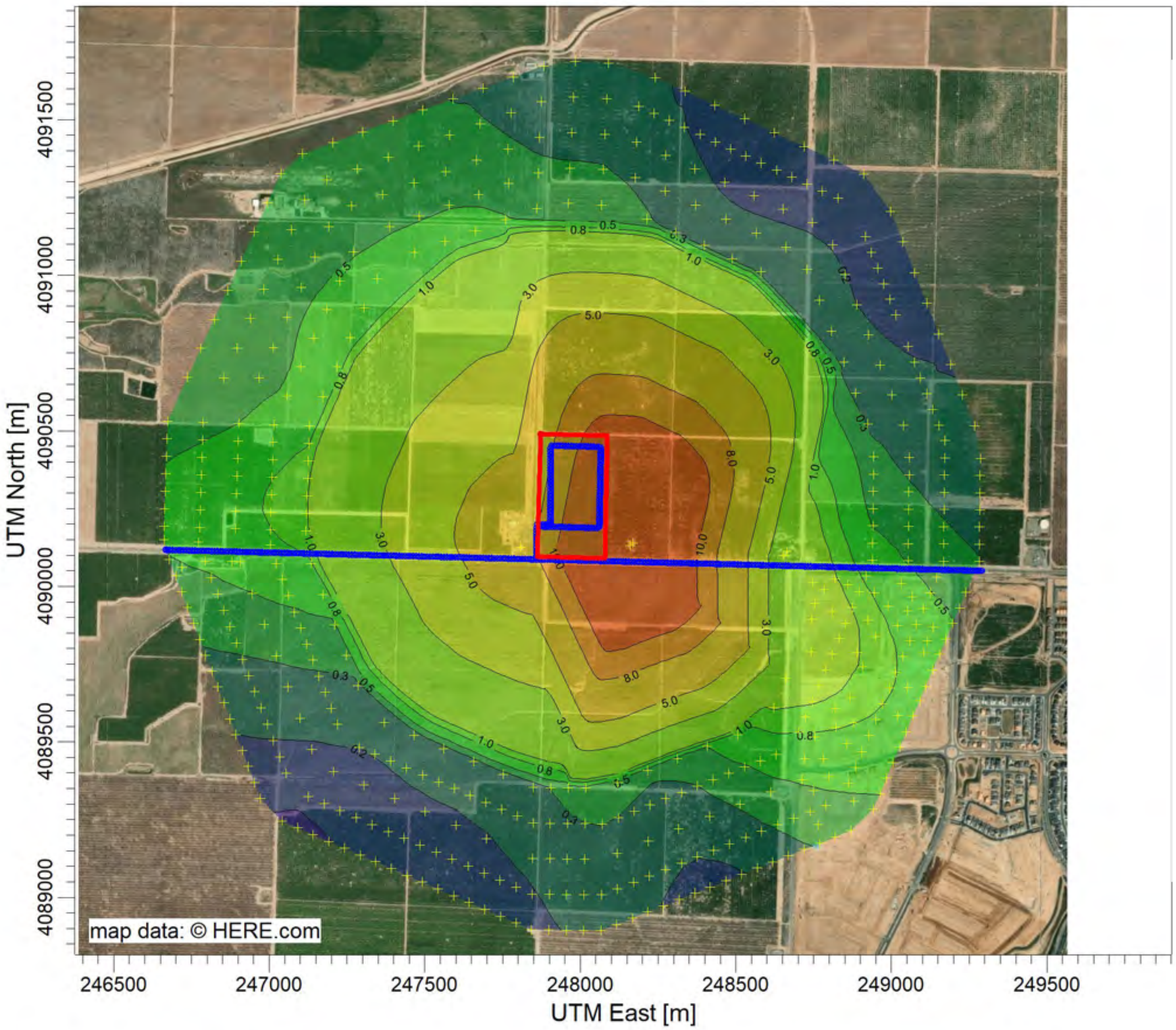
Graphical Representation of AERMOD Inputs
Construction Health Risk Assessment



COMMENTS:	SOURCES: **3**	COMPANY NAME:	
	RECEPTORS: **482**	MODELER:	
		SCALE: 1:26,862 0 1 km	
		DATE: **4/20/2024**	PROJECT NO.:

PROJECT TITLE:

Air Dispersion Trend
(Construction – Unit Emissions)



PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 3 YEARS FOR SOURCE GROUP: AREA ug/m^3

Max: 17.5 [ug/m^3] at (248159.46, 4090132.07)

0.0 0.1 0.1 0.2 0.3 0.5 0.8 1.0 3.0 5.0 8.0 10.0 17.5

COMMENTS:	SOURCES:	COMPANY NAME:	
	3		
	RECEPTORS:	MODELER:	
	482		
	OUTPUT TYPE:	SCALE: 1:22,173	
	Concentration	0 — 0.5 km	
	MAX:	DATE:	PROJECT NO.:
	17.5 ug/m^3	**4/20/2024**	

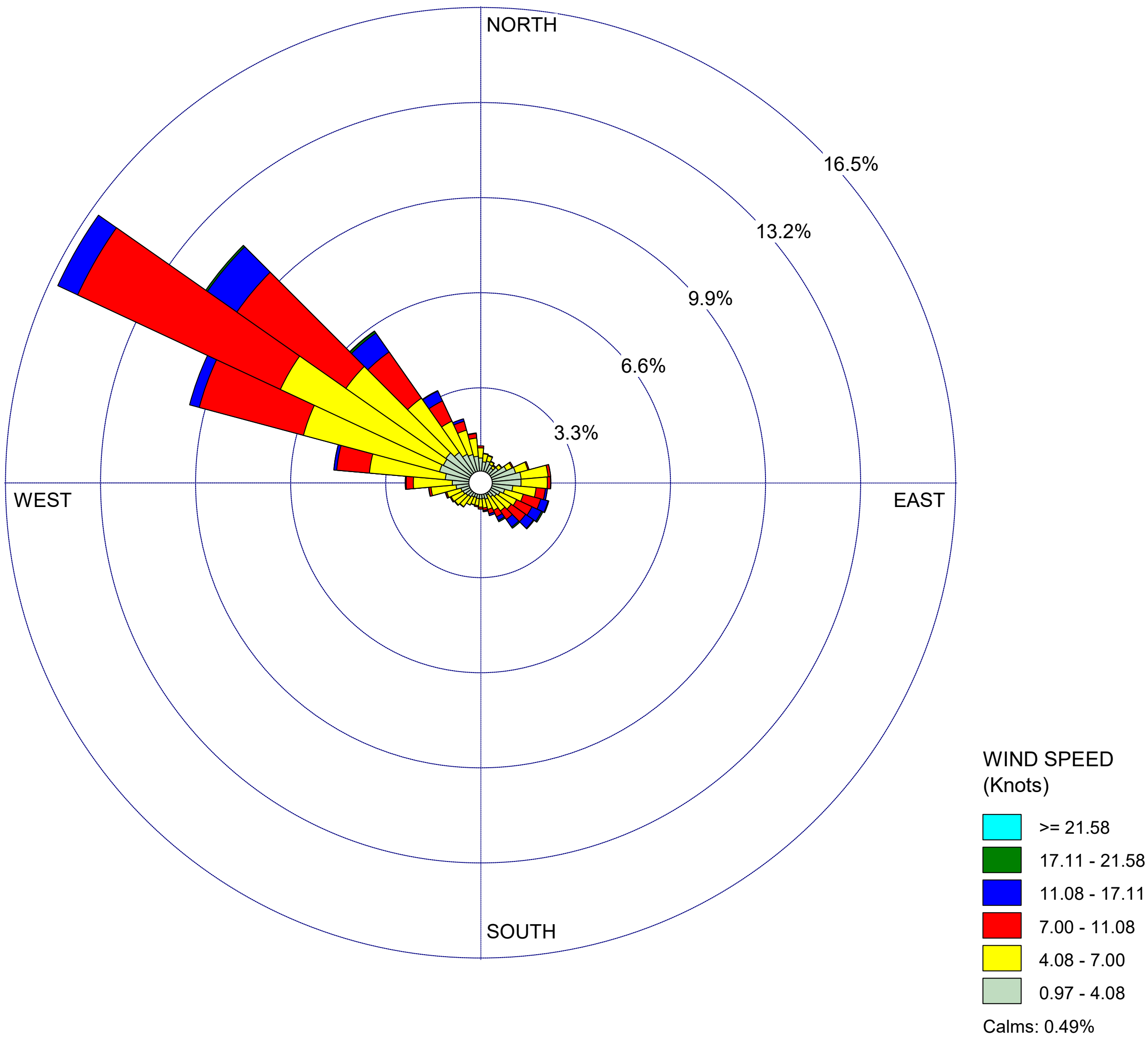
Maximally Exposed Receptor (MER) During Construction
Legend
Maximally Exposed Receptor
Polygon Measure
Bella Vista Dr
Bella Vista Dr
Rd 39 1/2
Maximally Exposed Sensitive Receptor
Ave 12
Ave 12
Ave 12
Ave 12
Google Earth
Image © 2024 Airbus
N
900 ft

WIND ROSE PLOT:

Wind Rose – Station #93242 – Blowing From

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

DATA PERIOD:

Start Date: 1/1/2015 - 00:00
End Date: 12/31/2017 - 23:59

COMPANY NAME:

MODELER:

CALM WINDS:

0.49%

TOTAL COUNT:

26038 hrs.

AVG. WIND SPEED:

5.86 Knots

DATE:

2/6/2024

PROJECT NO.:

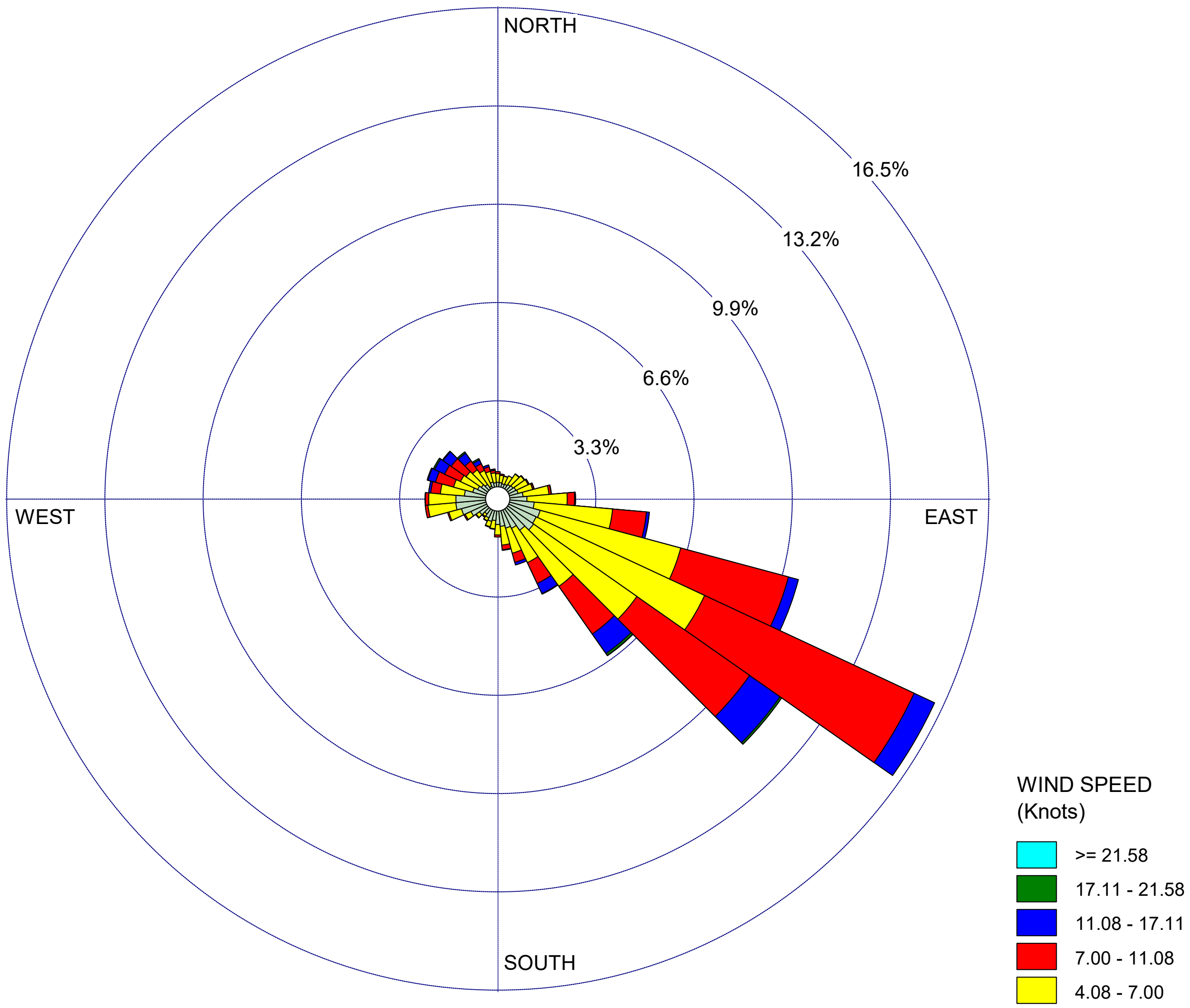
WRPLOT View - Lakes Environmental Software

WIND ROSE PLOT:

Wind Rose – Station #93242 – Blowing To

DISPLAY:

Wind Speed
Flow Vector (blowing to)



COMMENTS:

DATA PERIOD:

Start Date: 1/1/2015 - 00:00
End Date: 12/31/2017 - 23:59

COMPANY NAME:

MODELER:

CALM WINDS:

0.49%

TOTAL COUNT:

26038 hrs.

AVG. WIND SPEED:

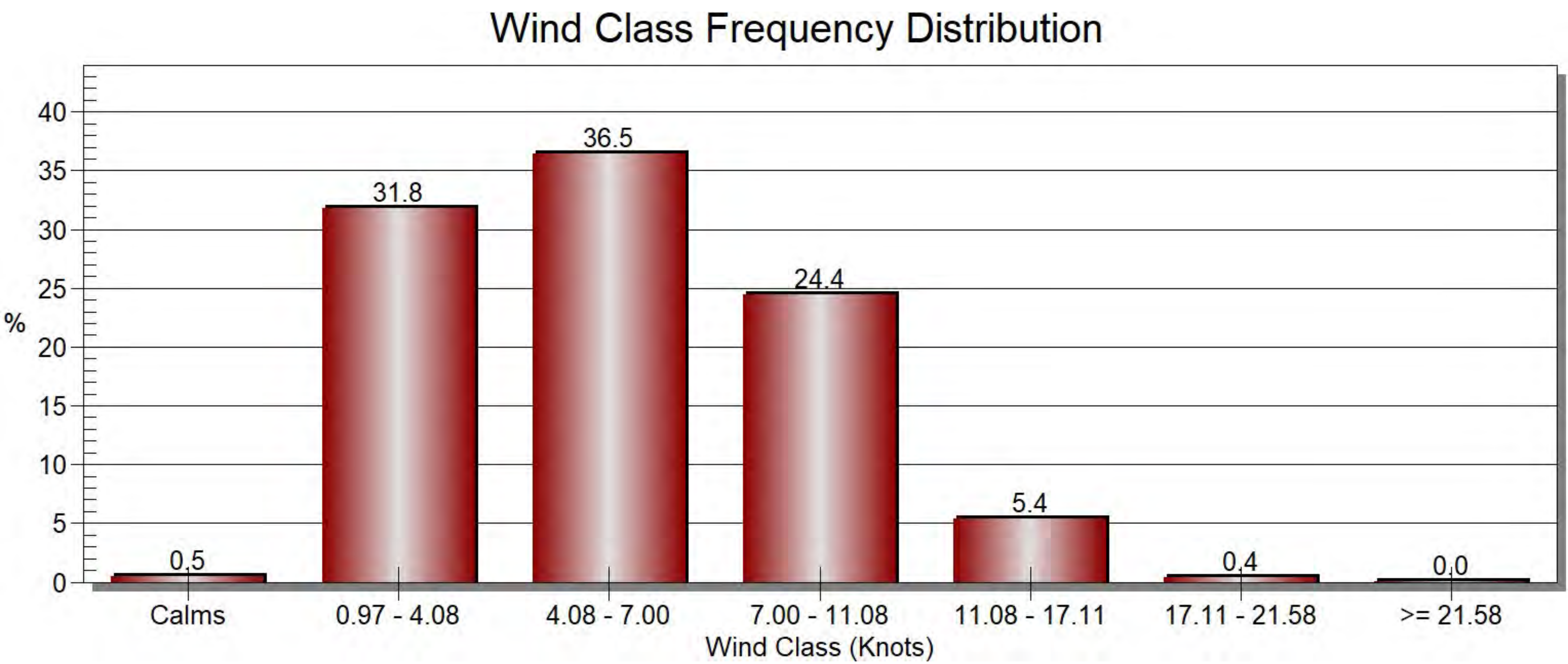
5.86 Knots

DATE:

2/6/2024

PROJECT NO.:

WRPLOT View - Lakes Environmental Software


Wind Class Frequency Distribution
%
40
35
30
25
20
15
10
5
0
36.5
31.8
24.4
5.4
0.5
0.4
0.0
Calms
0.97 - 4.08
4.08 - 7.00
7.00 - 11.08
11.08 - 17.11
17.11 - 21.58
>= 21.58
Wind Class (Knots)

Health Risk Assessment

Unmitigated Construction

Derrel's Mini Storage Project—Madera County, CA (Unmitigated Construction)

Estimation of Annual Onsite Construction Emissions		
Start of Construction	6/1/2025	
End of Construction	2/10/2028	**Total**
Number of Days	984	984
Number of Hours	23,616	23,616

Size of the construction area source: **84,923.1** **sq-meters**

Run	**Year**	**On-site Construction Activity**	**Unmitigated On-site DPM (pounds)**
Phases 1 & 2 + RV Storage	2025	Site Preparation	13.6555
Phases 1 & 2 + RV Storage	2025	Grading	43.2241
Phases 1 & 2 + RV Storage	2025	Paving	6.9718
Phases 1 & 2 + RV Storage	2025	Building Construction	38.2487
Phases 1 & 2 + RV Storage	2026	Building Construction	98.7205
Phases 1 & 2 + RV Storage	2027	Building Construction	6.9719
Phases 1 & 2 + RV Storage	2027	Architectural Coating	0.3810
Phase 3 & RV Removal	2027	Demolition (Removal of RV Storage)	9.4065
Phase 3 & RV Removal	2027	Site Preparation	0.9455
Phase 3 & RV Removal	2027	Grading	2.1559
Phase 3 & RV Removal	2027	Building Construction	50.3969
Phase 3 & RV Removal	2028	Building Construction	1.8140
Phase 3 & RV Removal	2028	Paving	1.4628
Phase 3 & RV Removal	2028	Architectural Coating	0.1536

Total Unmitigated DPM (On-site) 2.745E+02 pounds

Factor in AERMOD to Account for 5 days per week/8 hours per day: 4.2

Average Emission for Project Site (AREA)	1.246E+05	grams
	1.466E-03	grams/sec
	1.726E-08	grams/m2-sec

Pounds/Construction Period	2.745E+02
Pounds/Day	2.790E-01
Pounds/Hour	1.162E-02
Pounds/Year	1.018E+02
Years	2.69589

Derrel’s Mini Storage Project—Madera County, CA (Unmitigated Construction)

Estimation of Annual Offsite Construction DPM Emissions (Unmitigated)

Start of Construction	6/1/2025	
End of Construction	2/10/2028	**Total**
Number of Days	984	984
Number of Hours	23,616	23,616

	2025	2025	2025	2025-2027	2027	2027	2027	2027	2027-2028	2028	2028	
	Phases 1 & 2 + RV Storage	Phases 1 & 2 + RV Storage	Phases 1 & 2 + RV Storage	Phases 1 & 2 + RV Storage	Phases 1 & 2 + RV Storage	Phase 3 & RV Removal	Phase 3 & RV Removal	Phase 3 & RV Removal	Phase 3 & RV Removal	Phase 3 & RV Removal	Phase 3 & RV Removal	
Construction Trip Type	Site Preparation	Grading	Paving	Building Construction	Architectural Coating	Demolition (Removal of RV Storage)	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	**Total (pounds)**
Total (pounds)	0.04087	0.66688	0.08175	8.79199	0.08175	1.01331	0.00817	0.01635	1.14091	0.04087	0.04087	**11.92374**

		Haul Truck (Trips)	**Vendor Truck (Trips)**	**Worker (Trips)**	**Total (Trips)**
Site Preparation (2025)	P1, P2, RV	0.00	100.00	175.00	275.00
Grading (2025)	P1, P2, RV	396.00	350.00	700.00	1,446.00
Paving (2025)	P1, P2, RV	0.00	200.00	300.00	500.00
Building Construction (2025-2027)	P1, P2, RV	0.00	21,510.15	55,122.67	76,632.81
Architectural Coating (2027)	P1, P2, RV	0.00	200.00	595.92	795.92
Demolition (2027)	P3 + RV Removal	698.00	200.00	250.00	1,148.00
Site Preparation (2027)	P3 + RV Removal	0.00	20.00	15.00	35.00
Grading (2027)	P3 + RV Removal	0.00	40.00	40.00	80.00
Building Construction (2027-2028)	P3 + RV Removal	0.00	2,781.38	7,127.40	9,908.78
Paving (2028)	P3 + RV Removal	0.00	100.00	125.00	225.00
Architectural Coating (2028)	P3 + RV Removal	0.00	100.00	71.27	171.27
Total		**1,094.00**	**25,601.53**	**64,522.26**	**91,217.79**

	Haul Truck (pounds)	**Vendor Truck (pounds)**	**Worker (pounds)**	**Total (pounds)**
Total DPM	1.430E-01	3.347E+00	8.434E+00	1.192E+01
Average Emissions				
Grams	6.492E+01	1.519E+03	3.829E+03	
Grams/sec	7.637E-07	1.787E-05	4.504E-05	
Default Distance	20	9.27	13.77	Default Vehicle Travel Distance in CalEEMod
Vehicle Travel Distances in the Construction HRA (miles)				
Off-site Road Segment	1.64	1.64	1.64	miles
On-site Construction Travel	0.63	0.63	0.63	miles
Trip Distribution (percent)				
Off-site Road Segment	100.0%	100.0%	100.0%	off-site
On-site Construction Travel	100.0%	100.0%	100.0%	on-site
Total Average Offsite Vehicle Emissions Along Travel Distance (g/sec)				**Total**
Off-site Road Segment	6.246E-08	3.154E-06	5.350E-06	8.566E-06
On-site Construction Travel	2.405E-08	1.214E-06	2.060E-06	3.298E-06

	Grams/sec	Pounds/Hour	Pounds/Day	Pounds/year	Tons/year
Off-site Road Segment	8.566E-06	6.799E-05	1.632E-03	5.956E-01	2.978E-04
On-site Construction Travel	3.298E-06	2.618E-05	6.283E-04	2.293E-01	1.147E-04

Health Risk Summary - Unmitigated Construction (Summary of HARP2 Results)

Derrel's Mini Storage Project—Madera County, CA (Unmitigated Construction)

	RISK_SUM	Cancer Risk/million	MAXHI NonCancer Chronic	MAXHI Acute
Maximum Risk	9.5003E-06	9.50	5.1445E-03	0.00E+00

	X	Y
MER UTM	248159.46	4090132.07

Lat/Long 36°55'25.0"N 119°49'38.2"W
36.923604, -119.827282

Receptor # 448

*HARP - HRACalc v22118 4/20/2024 3:21:16 PM - Cancer Risk - Input File: F:\HRA\0008-004\01 - HARP UNMIT\hra\Unmit ConHRAInput.hra
*HARP - HRACalc v22118 4/20/2024 3:21:16 PM - Chronic Risk - Input File: F:\HRA\0008-004\01 - HARP UNMIT\hra\Unmit ConHRAInput.hra
*HARP - HRACalc v22118 4/20/2024 3:21:16 PM - Acute Risk - Input File: F:\HRA\0008-004\01 - HARP UNMIT\hra\Unmit ConHRAInput.hra

Health Risk Summary - Unmitigated Construction (Summary of HARP2 Results)

Derrel's Mini Storage Project—Madera County, CA (Unmitigated Construction)

	RISK_SUM	Cancer Risk/million	MAXHI NonCancer Chronic	MAXHI Acute
Maximum Risk	9.5003E-06	9.50	5.1445E-03	0.00E+00

	X	Y
MER UTM	248159.46	4090132.07
Lat/Long	36°55'25.0"N 119°49'38.2"W	
	36.923604, -119.827282	

Receptor # 448

*HARP - HRACalc v22118 4/20/2024 3:21:16 PM - Cancer Risk - Input File: F:\HRA\0008-004\01 - HARP UNMIT\hra\Unmit ConHRAInput.hra
*HARP - HRACalc v22118 4/20/2024 3:21:16 PM - Chronic Risk - Input File: F:\HRA\0008-004\01 - HARP UNMIT\hra\Unmit ConHRAInput.hra
*HARP - HRACalc v22118 4/20/2024 3:21:16 PM - Acute Risk - Input File: F:\HRA\0008-004\01 - HARP UNMIT\hra\Unmit ConHRAInput.hra

REC	GRP	X	Y	RISK_SUM	SCENARIO	MAXHI NonCancerChronic	MAXHI Acute
1	ALL	248581.12	4091011.33	1.29900E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	7.0344E-05	0.00E+00
2	ALL	248489.30	4091053.60	1.28300E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	6.9475E-05	0.00E+00
3	ALL	248397.47	4091095.88	1.30260E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	7.0536E-05	0.00E+00
4	ALL	248305.65	4091138.15	1.44960E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	7.8496E-05	0.00E+00
5	ALL	248213.82	4091180.43	1.70470E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	9.2310E-05	0.00E+00
6	ALL	248924.08	4090520.77	1.57630E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	8.5357E-05	0.00E+00
7	ALL	248885.19	4090620.37	1.42520E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	7.7174E-05	0.00E+00
8	ALL	248846.31	4090719.97	1.27960E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	6.9292E-05	0.00E+00
9	ALL	248807.42	4090819.57	1.17410E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	6.3578E-05	0.00E+00
10	ALL	248768.54	4090919.17	1.13960E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	6.1710E-05	0.00E+00
11	ALL	248729.65	4091018.77	1.11120E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	6.0172E-05	0.00E+00
12	ALL	248661.65	4091090.93	1.07050E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.7967E-05	0.00E+00
13	ALL	248564.52	4091135.64	1.04990E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.6852E-05	0.00E+00
14	ALL	248467.40	4091180.36	1.04280E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.6470E-05	0.00E+00
15	ALL	248370.28	4091225.07	1.13070E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	6.1227E-05	0.00E+00
16	ALL	248273.15	4091269.79	1.32540E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	7.1770E-05	0.00E+00
17	ALL	248176.03	4091314.50	1.52820E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	8.2751E-05	0.00E+00
18	ALL	248942.89	4090415.62	1.79820E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	9.7372E-05	0.00E+00
19	ALL	248942.26	4090360.27	1.96110E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	1.0620E-04	0.00E+00
20	ALL	248941.63	4090304.92	2.15620E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	1.1676E-04	0.00E+00
21	ALL	248941.00	4090249.57	2.40640E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	1.3031E-04	0.00E+00
22	ALL	248940.37	4090194.22	2.74070E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	1.4841E-04	0.00E+00
23	ALL	248939.75	4090138.87	3.20320E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	1.7346E-04	0.00E+00
24	ALL	248939.12	4090083.52	3.93940E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	2.1332E-04	0.00E+00
25	ALL	249038.91	4090518.05	1.33760E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	7.2434E-05	0.00E+00
26	ALL	249001.14	4090614.80	1.23700E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	6.6987E-05	0.00E+00
27	ALL	248963.36	4090711.56	1.11150E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	6.0190E-05	0.00E+00
28	ALL	248925.59	4090808.31	1.00480E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.4412E-05	0.00E+00
29	ALL	248887.81	4090905.07	9.55740E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.1754E-05	0.00E+00
30	ALL	248850.04	4091001.82	9.63540E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.2177E-05	0.00E+00
31	ALL	248812.27	4091098.58	9.37860E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.0786E-05	0.00E+00
32	ALL	248746.20	4091168.67	9.04020E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.8954E-05	0.00E+00
33	ALL	248651.86	4091212.11	8.80870E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.7700E-05	0.00E+00
34	ALL	248557.51	4091255.55	8.64070E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.6790E-05	0.00E+00
35	ALL	248463.16	4091298.99	8.99490E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.8708E-05	0.00E+00
36	ALL	248368.81	4091342.42	1.01090E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.4744E-05	0.00E+00
37	ALL	248274.46	4091385.86	1.17020E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	6.3367E-05	0.00E+00
38	ALL	248180.11	4091429.30	1.32380E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	7.1684E-05	0.00E+00
39	ALL	249057.17	4090414.32	1.49200E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	8.0793E-05	0.00E+00
40	ALL	249056.54	4090358.97	1.60550E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	8.6939E-05	0.00E+00
41	ALL	249055.91	4090303.62	1.74820E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	9.4666E-05	0.00E+00
42	ALL	249055.28	4090248.27	1.92910E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	1.0446E-04	0.00E+00
43	ALL	249054.65	4090192.92	2.15520E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	1.1671E-04	0.00E+00
44	ALL	249054.02	4090137.57	2.46370E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	1.3341E-04	0.00E+00
45	ALL	249053.40	4090082.22	3.02770E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	1.6395E-04	0.00E+00
46	ALL	249152.37	4090518.84	1.15040E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	6.2296E-05	0.00E+00
47	ALL	249132.67	4090569.30	1.11620E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	6.0444E-05	0.00E+00
48	ALL	249112.97	4090619.76	1.07810E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.8382E-05	0.00E+00
49	ALL	249093.27	4090670.23	1.03290E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.5930E-05	0.00E+00
50	ALL	249073.57	4090720.69	9.77320E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.2923E-05	0.00E+00
51	ALL	249053.86	4090771.16	9.18080E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.9715E-05	0.00E+00
52	ALL	249014.46	4090872.09	8.31280E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.5015E-05	0.00E+00
53	ALL	248994.76	4090922.55	8.13630E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.4059E-05	0.00E+00
54	ALL	248975.06	4090973.02	8.08400E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.3775E-05	0.00E+00
55	ALL	248955.36	4091023.48	8.17610E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.4274E-05	0.00E+00
56	ALL	248935.65	4091073.95	8.27610E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.4816E-05	0.00E+00
57	ALL	248915.95	4091124.41	8.25150E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.4683E-05	0.00E+00
58	ALL	248827.34	4091247.99	7.79000E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.2184E-05	0.00E+00
59	ALL	248778.13	4091270.65	7.72650E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.1840E-05	0.00E+00
60	ALL	248728.92	4091293.31	7.61350E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.1228E-05	0.00E+00
61	ALL	248679.71	4091315.96	7.48900E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.0554E-05	0.00E+00
62	ALL	248630.50	4091338.62	7.40190E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.0082E-05	0.00E+00
63	ALL	248581.29	4091361.27	7.40190E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.0082E-05	0.00E+00
64	ALL	248532.08	4091383.93	7.56510E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.0966E-05	0.00E+00
65	ALL	248482.87	4091406.58	7.85750E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.2549E-05	0.00E+00
66	ALL	248433.66	4091429.24	8.29880E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.4939E-05	0.00E+00
67	ALL	248384.46	4091451.89	8.91460E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.8274E-05	0.00E+00
68	ALL	248335.25	4091474.55	9.63780E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.2190E-05	0.00E+00
69	ALL	248286.04	4091497.20	1.03330E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.5954E-05	0.00E+00
70	ALL	248236.83	4091519.86	1.10170E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.9661E-05	0.00E+00
71	ALL	248187.62	4091542.51	1.16100E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	6.2870E-05	0.00E+00
72	ALL	249172.07	4090468.37	1.18340E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	6.4080E-05	0.00E+00
73	ALL	249171.45	4090413.02	1.26040E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	6.8250E-05	0.00E+00
74	ALL	249170.82	4090357.67	1.34720E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	7.2954E-05	0.00E+00
75	ALL	249170.19	4090302.32	1.44700E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	7.8358E-05	0.00E+00
76	ALL	249169.56	4090246.97	1.57370E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	8.5217E-05	0.00E+00
77	ALL	249168.93	4090191.62	1.75060E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	9.4794E-05	0.00E+00
78	ALL	249168.30	4090136.27	1.98530E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	1.0750E-04	0.00E+00
79	ALL	249167.67	4090080.92	2.43690E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	1.3196E-04	0.00E+00
80	ALL	249267.14	4090516.29	9.99930E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.4147E-05	0.00E+00
81	ALL	249228.71	4090614.72	9.58190E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.1887E-05	0.00E+00
82	ALL	249190.28	4090713.15	8.90010E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.8195E-05	0.00E+00
83	ALL	249151.86	4090811.58	7.90380E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.2800E-05	0.00E+00
84	ALL	249113.43	4090910.01	7.17150E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	3.8834E-05	0.00E+00
85	ALL	249075.00	4091008.43	6.95080E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	3.7639E-05	0.00E+00
86	ALL	249036.57	4091106.86	7.19690E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	3.8972E-05	0.00E+00
87	ALL	248998.15	4091205.29	7.19250E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	3.8948E-05	0.00E+00
88	ALL	248911.73	4091325.82	6.85330E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	3.7112E-05	0.00E+00
89	ALL	248815.75	4091370.00	6.70910E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	3.6330E-05	0.00E+00
90	ALL	248719.77	4091414.19	6.47210E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	3.5047E-05	0.00E+00
91	ALL	248623.79	4091458.38	6.45250E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	3.4941E-05	0.00E+00
92	ALL	248527.80	4091502.57	6.79650E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	3.6804E-05	0.00E+00
93	ALL	248431.82	4091546.76	7.62590E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.1295E-05	0.00E+00
94	ALL	248335.84	4091590.95	8.75800E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	4.7425E-05	0.00E+00
95	ALL	248239.86	4091635.14	9.89480E-08	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.3581E-05	0.00E+00
96	ALL	249285.72	4090411.72	1.07670E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	5.8305E-05	0.00E+00
97	ALL	249285.10	4090356.37	1.14130E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	6.1802E-05	0.00E+00
98	ALL	249284.47	4090301.02	1.21660E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	6.5881E-05	0.00E+00
99	ALL	249283.84	4090245.67	1.31050E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	7.0964E-05	0.00E+00
100	ALL	249283.21	4090190.32	1.42810E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	7.7332E-05	0.00E+00
101	ALL	249282.58	4090134.97	1.58770E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	8.5977E-05	0.00E+00
102	ALL	249281.95	4090079.62	1.88630E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	1.0215E-04	0.00E+00
103	ALL	248120.33	4089369.65	1.93570E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	1.0482E-04	0.00E+00
104	ALL	248216.43	4089408.04	1.79130E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	9.7001E-05	0.00E+00
105	ALL	248312.53	4089446.42	1.98840E-07	2.7YrCancerDerived_InhSoilDermMMilkCropsChickenEgg	1.0767E-04	0.00E+00

HARP2 - HRACalc (dated 22118) 4/20/2024 3:21:16 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 2.7

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0.7
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True

```
Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: True
Egg: True

**********************************
INHALATION

Daily breathing rate: LongTerm24HR

**Worker Adjustment Factors**
Worker adjustment factors enabled: NO

**Fraction at time at home**
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

**********************************
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Mixed

**********************************
HOMEGROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden
Fraction leafy: 0.137
Fraction exposed: 0.137
Fraction protected: 0.137
Fraction root: 0.137
```

```
*********************************
PIG, CHICKEN, & EGG PATHWAY SETTINGS

Surface area (m^2): 0
Volume (kg): 0
Volume changes per year: 0

Pig
Fraction consumed from contaminated water source: 0
Fraction consumed of contaminated leafy crop: 0.25
Fraction consumed of contaminated exposed crop: 0.25
Fraction consumed of contaminated protected crop: 0.25
Fraction consumed of contaminated root crop: 0.25

Chicken
Fraction consumed from contaminated water source: 0
Fraction consumed of contaminated leafy crop: 0.25
Fraction consumed of contaminated exposed crop: 0.25
Fraction consumed of contaminated protected crop: 0.25
Fraction consumed of contaminated root crop: 0.25

Egg
Fraction consumed from contaminated water source: 0
Fraction consumed of contaminated leafy crop: 0.25
Fraction consumed of contaminated exposed crop: 0.25
Fraction consumed of contaminated protected crop: 0.25
Fraction consumed of contaminated root crop: 0.25

*********************************
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment.  Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: F:\HRA\0008-004\01 - HARP UNMIT\hra\Unmit
```

```
ConCancerRisk.csv
Cancer risk total by receptor saved to: F:\HRA\0008-004\01 - HARP UNMIT\hra\Unmit ConCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: F:\HRA\0008-004\01 - HARP UNMIT\hra\Unmit
ConNCChronicRisk.csv
Chronic risk total by receptor saved to: F:\HRA\0008-004\01 - HARP UNMIT\hra\Unmit ConNCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to: F:\HRA\0008-004\01 - HARP UNMIT\hra\Unmit
ConNCAcuteRisk.csv
Acute risk total by receptor saved to: F:\HRA\0008-004\01 - HARP UNMIT\hra\Unmit ConNCAcuteRiskSumByRec.csv
HRA ran successfully
```

Health Risk Screening

Operational Screening Calculations and Prioritization (1 & 2 + RV Storage Developed Scenario)

Derrel's Mini Storage Project—Madera County, CA—Health Risk Screening Analysis for Project Operations (1 & 2 + RV Storage Developed)

Diesel Truck Trips

	Trucks Onsite Daily	Average Daily Truck Trips
Heavy Truck Trips	**19.44**	**38.89**

Truck Assumptions

Trucks Onsite per Day	19.44
Trucks Onsite per Year	7,097.3
Idling Events per Truck per day	2
Idling Time per Event (minutes)	15
Idling Minutes/Year	212,920
Idling Hours/Year	3,549

	Truck Entering	Trucks Exiting	Total
Average Travel Distance Onsite (ft)	660	660	1,320

(0.25 mile on-site and 0.25 mile off-site assumed for this localized assessment - mini storage project)

	Miles/Trip	Truck Trips/Year	Miles/Year
Offsite Miles Estimate	0.25	14,194.6	3,548.7

	Distance Onsite (ft) in and out	Distance to Receptor Meters	Direction to Receptor	Idling Emissions (lbs/year)	Running Emissions (lbs/yr)	Total Truck Emissions (lbs/year)	Grand Total (lbs/yr)	Average Lbs/Day	Max Lbs/Day*	Max lbs/Hr
Emissions	1,320	<100 M	All	0.10	0.61	**0.7136**	0.71	0.00196	0.00587	0.00049

*Max daily assumed to be 3 times the daily average. Max hr based on 12 hrs/day

Running Emission Calculations	**EMFAC2021 Rates**
Idling Emission Rate for Diesel g/day	0.12323
g/lb conversion factor	0.00220
HDT Onsite Running Emissions 5 mph g/mile	0.10114
HDT Running Emissions Onroad 5-25 mph	0.05595

EMFAC2021 PM10 running emissions Aggregated Fleet Age in 2024

EMFAC2021 Average Running Emissions

	PM10_RUNEX 5-25 MPH	PM10 RUNEX 5 MPH
Weighted Averages (Based on Project Fleet)	**0.05595**	**0.10114**

	Distance (Feet)	Distance (Miles)	Miles/Year/ Truck	Trucks/Day	Emission (g/mi)	Emissions g/year	Emission lbs/year	Emissions lbs/hour
Onsite Running Emissions	1,320.00	0.25	91.3	19.4	0.10114	179.46	0.40	9.033E-05

	Distance (Feet)	Miles/ Round Trip	Miles/Year/ Truck	Trucks/Day	Emissions Rate (g/mi)	Emissions g/year	Emission lbs/year	Emissions lbs/hour
Offsite Running Emissions	1,320.00	0.25	91.25	19.4	0.05595	99.27	0.22	4.997E-05
						Total Running	**0.61448**	**0.00014**

Total Emissions	**Lbs/Year**	**Max Lbs/Hours**
Onsite Running Emissions	0.3956	0.0000903
Offsite Running Emissions	0.2188	0.0000500
Idling Emissions	0.0992	0.0004888
Total	**0.7136422**	**0.0006291**

Health Risk Prioritization Results (Receptor 0-100 M) - Phases 1 & 2 + RV Storage Developed Scenario

	Cancer Score	Chronic Score	Acute Score
Prioritization Score Truck Run and Idle	**1.64851**	**0.00603**	**0.00000**

Operational Fuel Calculation—Project-generated Operational Trips

Daily Truck Trips

Derrel's Mini Storage Project—Madera County, CA - Buildout Year Operations (1 & 2 + RV Storage Developed)

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
General Office Building	8.71536	1.77684	0.5628	2394.214371	127.5183685	25.99774857	8.234580994	35030.83184
Unrefrigerated Warehouse-No Rail	251	251	251	91615	3672.494367	3672.494367	3672.494367	1340460.444
Unrefrigerated Warehouse-No Rail	174	174	174	63510	2545.872589	2545.872589	2545.872589	929243.4949
Single Family Housing	9.430943	9.480948	8.480848	3395.360931	138.5859689	139.3207831	124.624498	49894.20297
Enclosed Parking Structure	13	13	13	4745	190.2088716	190.2088716	190.2088716	69426.23813
Parking Lot	0	0	0	0	0	0	0	0

	Weekday	Saturday	Sunday	Total Average Daily Trips
Trips per Day	456	449	447	**454**

Madera County Fleet Mix for the 2027 Operational Year

	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Project Fleet Mix (out of 100)	45.385581	4.115270	20.801936	17.907368	3.889877	1.009746	1.085874	2.583062	0.062740	0.022538	2.454324	0.214159	0.467524
Project Fleet Mix (out of 1)	0.453856	0.041153	0.208019	0.179074	0.038899	0.010097	0.010859	0.025831	0.000627	0.000225	0.024543	0.002142	0.004675
Daily Trips													
Project Total	**205.9878**	**18.6776**	**94.4121**	**81.2747**	**17.6547**	**4.5828**	**4.9284**	**11.7235**	**0.2848**	**0.1023**	**11.1392**	**0.9720**	**2.1219**

Heavy Trucks Only	Trips/Day	Truck Fleet	Truck Fleet
LHD1	17.655	0.453971	45.397099
LHD2	4.583	0.117843	11.784310
MHD	4.928	0.126728	12.672769
HHD	11.724	0.301458	30.145823
Heavy Trucks Total	*38.889*	1.000000	100.000000

On-site Truck Running and Idling Emissions for the Health Risk Screening Analysis—Derrel’s Mini Storage Project—Madera County, CA (Phases 1 & 2 + RV Storage Developed)

Source: EMFAC2021 (v1.0.2) Emission Rates
Region Type: County
Region: Tulare
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, g/mile for RUNEX, PMBW and PMTW, mph for Speed, kWh/mile for Energy Consumption, gallon/mile for Fuel Consumption. PHEV calculated based on total VMT.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	SOx_RUNEX
Madera	2027	HHDT	Aggregate	5	Diesel	176.2601564	16.89650032	0.098744452	0.103209238	3351.620444	0.023223698	0.528049166	0.499999853	0.569211772	1.225740515	0.031737841
Madera	2027	HHDT	Aggregate	10	Diesel	3109.571921	8.368718152	0.016343044	0.017082004	2618.019117	0.004487511	0.412469978	0.096614883	0.109988689	0.682371579	0.024791075
Madera	2027	HHDT	Aggregate	15	Diesel	7324.140312	5.227523891	0.008705434	0.009099056	2113.535102	0.001730115	0.332988316	0.037248895	0.042405032	0.365577053	0.020013914
Madera	2027	HHDT	Aggregate	20	Diesel	11354.8769	3.757567676	0.006356073	0.006643467	1883.29576	0.001031079	0.296714014	0.022198847	0.025271698	0.249057545	0.017833685
Madera	2027	HHDT	Aggregate	25	Diesel	8895.708039	3.07697849	0.006343982	0.006630828	1697.775374	0.0008026	0.267485202	0.017279764	0.019671696	0.194367328	0.016076918
						Total	37.32728853	0.136492986	0.142664593	11664.2458	0.031275003	1.837706675	0.673342242	0.766548887	2.71711402	0.110453433
Madera	2027	LHDT1	Aggregate	5	Diesel	1725.026809	2.687043028	0.109473507	0.114423413	1198.568995	0.022854668	0.188835033	0.492047552	0.560163424	1.621158047	0.01135705
Madera	2027	LHDT1	Aggregate	10	Diesel	5736.500368	2.499308811	0.089280646	0.093317521	1037.711083	0.018607898	0.163491804	0.400617079	0.45607591	1.288163552	0.00983284
Madera	2027	LHDT1	Aggregate	15	Diesel	12423.61642	2.341225951	0.073351755	0.076668396	867.0759621	0.01535714	0.136608171	0.330630189	0.376400488	1.032454891	0.008215985
Madera	2027	LHDT1	Aggregate	20	Diesel	13620.2964	2.205710903	0.060476371	0.063210844	749.6149051	0.012776168	0.118102134	0.275063368	0.313141357	0.829843685	0.007102982
Madera	2027	LHDT1	Aggregate	25	Diesel	14577.35082	2.103916185	0.049972029	0.052231542	651.8325066	0.01068105	0.102696477	0.229956723	0.26179044	0.666874517	0.006176444
						Total	11.83720488	0.382554308	0.399851716	4504.803452	0.080276924	0.709733618	1.728314911	1.96757162	5.438494692	0.042685302
Madera	2027	LHDT2	Aggregate	5	Diesel	677.76946	2.267210973	0.09072693	0.0948292	1421.239842	0.018508168	0.223916916	0.398469965	0.453631564	1.322834584	0.01346697
Madera	2027	LHDT2	Aggregate	10	Diesel	2253.892366	2.054010209	0.075122152	0.078518842	1239.390666	0.015450933	0.195266504	0.332649501	0.378699341	1.068410782	0.011743856
Madera	2027	LHDT2	Aggregate	15	Diesel	4881.285174	1.87069998	0.062452437	0.06527626	1055.423506	0.013015658	0.166282403	0.280219458	0.319011223	0.864565897	0.010000674
Madera	2027	LHDT2	Aggregate	20	Diesel	5351.465199	1.711563634	0.051974989	0.054325067	913.6596385	0.011012227	0.143947448	0.237086753	0.269907506	0.697312072	0.008657389
Madera	2027	LHDT2	Aggregate	25	Diesel	5727.495444	1.585265502	0.043271011	0.045227534	794.1722113	0.00933345	0.125122155	0.200943684	0.228761025	0.558868195	0.007525185
						Total	9.488750298	0.323547519	0.338176902	5423.885865	0.067320437	0.854535427	1.449369362	1.650010658	4.51199153	0.051394075
Madera	2027	MHDT	Aggregate	5	Diesel	132.2279371	7.617725743	0.052154155	0.054512334	2328.24723	0.012405211	0.366816299	0.2670808	0.30405116	0.465876348	0.022047109
Madera	2027	MHDT	Aggregate	10	Diesel	1451.496121	3.108934452	0.027763174	0.029018501	1958.983872	0.006029992	0.308638707	0.129824081	0.147794834	0.346624129	0.018550406
Madera	2027	MHDT	Aggregate	15	Diesel	2513.828004	1.924538315	0.01695006	0.017716466	1539.204899	0.002864176	0.242502359	0.061664913	0.07020081	0.215207326	0.01457535
Madera	2027	MHDT	Aggregate	20	Diesel	3290.280835	1.451478716	0.010678088	0.011160904	1311.526805	0.001410006	0.206631582	0.030357033	0.034559171	0.152180316	0.012419375
Madera	2027	MHDT	Aggregate	25	Diesel	4515.063508	1.200320957	0.008356586	0.008734434	1184.559139	0.00102447	0.186627775	0.022056549	0.025109702	0.122382313	0.011217067
						Total	15.30299818	0.115902062	0.121142639	8322.521945	0.023733854	1.311216722	0.510983376	0.581715677	1.302270432	0.078809306

Running Emissions 5-25 MPH Averaged

	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	SOx_RUNEX
HHDT	**7.4655**	**0.0273**	**0.0285**	**2332.8492**	**0.0063**	**0.3675**	**0.1347**	**0.1533**	**0.5434**	**0.0221**
LHDT1	**2.3674**	**0.0765**	**0.0800**	**900.9607**	**0.0161**	**0.1419**	**0.3457**	**0.3935**	**1.0877**	**0.0085**
LHDT2	**1.8978**	**0.0647**	**0.0676**	**1084.7772**	**0.0135**	**0.1709**	**0.2899**	**0.3300**	**0.9024**	**0.0103**
MHDT	**3.0606**	**0.0232**	**0.0242**	**1664.5044**	**0.0047**	**0.2622**	**0.1022**	**0.1163**	**0.2605**	**0.0158**

HHDT		**LHDT1**		**LHDT2**		**MHDT**	
Localized Miles per Trip	0.50	Miles per Trip	0.50	Miles per Trip	0.50	Miles per Trip	0.50
Daily Trucks	5.86	Daily Trucks	8.83	Daily Trucks	2.29	Daily Trucks	2.46
Daily Trips	11.72	Daily Trips	17.65	Daily Trips	4.58	Daily Trips	4.93

Onsite Truck Max Daily Emissions	**ROG**	**NO_X**	**CO**	**SO2**	**PM10**	**PM2.5**
HHDT (g/day)	0.7894	43.7608	3.1854	0.1295	0.1673	0.1600
LHDT1 (g/day)	3.0513	20.8982	9.6015	0.0754	0.7059	0.6754
LHDT2 (g/day)	0.6642	4.3486	2.0678	0.0236	0.1550	0.1483
MHDT (g/day)	0.2518	7.5419	0.6418	0.0388	0.0597	0.0571
Total Trucks (g/day)	4.7567	76.5494	15.4965	0.2672	1.0879	1.0408
Running Emissions lbs/day	0.0105	0.1688	0.0342	0.0006	0.0024	0.0023
Idling Emissions Lbs/Day	0.095	1.142	1.404	0.002	0.001	0.001
Total Emissions/Day	**0.106**	**1.310**	**1.438**	**0.0026**	**0.004**	**0.003**

g/lb conversion factor		0.00220

Idling Minutes/Day Per Truck	15
Max Trucks per Day	19.44
Number Idling Trucks per Day	19.44
Max Trucks per Day—HHDT	5.86
Max Trucks per Day—LHDT1	8.83
Max Trucks per Day—LHDT2	2.29
Max Trucks per Day—MHDT	2.46

Idling Emissions	**Calendar Year**	**Season**	**Region**	**Vehicle Category**	**Fuel**	**Pollutant**	**g/vehicle/day**	**g/day**	**Max lbs/day**
IDLEX	2027	Annual	Madera	HHDT	Diesel	ROG	7.0532	41.3441	0.091148
IDLEX	2027	Annual	Madera	LHDT1	Diesel	ROG	0.1098	0.9689	0.002136
IDLEX	2027	Annual	Madera	LHDT2	Diesel	ROG	0.1098	0.2515	0.000554
IDLEX	2027	Annual	Madera	MHDT	Diesel	ROG	0.2185	0.5385	0.001187
IDLEX	2027	Annual	Madera	HHDT	Diesel	NOx	79.5566	466.3426	1.028110
IDLEX	2027	Annual	Madera	LHDT1	Diesel	NOx	2.1691	19.1478	0.042214
IDLEX	2027	Annual	Madera	LHDT2	Diesel	NOx	2.0951	4.8007	0.010584
IDLEX	2027	Annual	Madera	MHDT	Diesel	NOx	11.1854	27.5628	0.060766
IDLEX	2027	Annual	Madera	HHDT	Diesel	CO	103.8035	608.4719	1.341451
IDLEX	2027	Annual	Madera	LHDT1	Diesel	CO	0.9097	8.0306	0.017704
IDLEX	2027	Annual	Madera	LHDT2	Diesel	CO	0.9097	2.0846	0.004596
IDLEX	2027	Annual	Madera	MHDT	Diesel	CO	7.3454	18.1003	0.039904
IDLEX	2027	Annual	Madera	HHDT	Diesel	SO2	0.1475	0.8648	0.001907
IDLEX	2027	Annual	Madera	LHDT1	Diesel	SO2	0.0013	0.0113	0.000025
IDLEX	2027	Annual	Madera	LHDT2	Diesel	SO2	0.0020	0.0047	0.000010
IDLEX	2027	Annual	Madera	MHDT	Diesel	SO2	0.0204	0.0502	0.000111
IDLEX	2027	Annual	Madera	HHDT	Diesel	PM10	0.0332	0.1948	0.000429
IDLEX	2027	Annual	Madera	LHDT1	Diesel	PM10	0.0275	0.2425	0.000535
IDLEX	2027	Annual	Madera	LHDT2	Diesel	PM10	0.0276	0.0631	0.000139
IDLEX	2027	Annual	Madera	MHDT	Diesel	PM10	0.0201	0.0496	0.000109
IDLEX	2027	Annual	Madera	HHDT	Diesel	PM2.5	0.0318	0.1864	0.000411
IDLEX	2027	Annual	Madera	LHDT1	Diesel	PM2.5	0.0263	0.2320	0.000511
IDLEX	2027	Annual	Madera	LHDT2	Diesel	PM2.5	0.0264	0.0604	0.000133
IDLEX	2027	Annual	Madera	MHDT	Diesel	PM2.5	0.0193	0.0475	0.000105

For Weighted Average for Project (5-25 MPH)

	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	SOx_RUNEX
Weighted Average Using Project Truck Fleet Percentages										
HHDT	7.465457707	0.027298597	0.028532919	2332.849159	0.006255001	0.367541335	0.134668448	0.153309777	0.543422804	0.022090687
LHDT1	2.367440975	0.076510862	0.079970343	900.9606903	0.016055385	0.141946724	0.345662982	0.393514324	1.087698938	0.00853706
LHDT2	1.89775006	0.064709504	0.06763538	1084.777173	0.013464087	0.170907085	0.289873872	0.330002132	0.902398306	0.010278815
MHDT	3.060599637	0.023180412	0.024228528	1664.504389	0.004746771	0.262243344	0.102196675	0.116343135	0.260454086	0.015761861
HHDT	43.76077767	0.160018031	0.167253336	13674.61948	0.03666536	2.154441868	0.78939514	0.898666277	3.185418153	0.129490469
LHDT1	20.89819176	0.675386915	0.705924914	7953.080761	0.141726241	1.253011113	3.051282528	3.473682295	9.60148161	0.075359482
LHDT2	4.348551659	0.148276966	0.154981392	2485.685378	0.030851944	0.391620744	0.664224197	0.756175087	2.067777909	0.023553132
MHDT	7.541877612	0.057120779	0.059703527	4101.643428	0.011696912	0.646215592	0.25183131	0.286690777	0.641806533	0.038840111
Total	76.5493987	1.04080269	1.087863169	28215.02905	0.220940457	4.445289317	4.756733175	5.415214437	15.49648421	0.267243194
Weighted Average	3.936772613	0.053526267	0.055946487	1451.038879	0.011362497	0.228611766	0.244628661	0.27849295	0.796951193	0.013743749

Max Trucks per Day—HHDT	5.86
Max Trucks per Day—LHDT1	8.83
Max Trucks per Day—LHDT2	2.29
Max Trucks per Day—MHDT	2.46
Total	19.44

For Weighted Average for Project (5 MPH)

	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	SOx_RUNEX
Weighted Average Using Project Truck Fleet Percentages										
HHDT	16.89650032	0.098744452	0.103209238	3351.620444	0.023223698	0.528049166	0.499999853	0.569211772	1.225740515	0.031737841
LHDT1	2.687043028	0.109473507	0.114423413	1198.568995	0.022854668	0.188835033	0.492047552	0.560163424	1.621158047	0.01135705
LHDT2	2.267210973	0.09072693	0.0948292	1421.239842	0.018508168	0.223916916	0.398469965	0.453631564	1.322834584	0.01346697
MHDT	7.617725743	0.052154155	0.054512334	2328.24723	0.012405211	0.366816299	0.2670808	0.30405116	0.465876348	0.022047109
HHDT	99.04335717	0.578817026	0.604988564	19646.41993	0.13613192	3.095301461	2.930882911	3.336587092	7.185005963	0.186039848
LHDT1	23.71942576	0.966359186	1.01005366	10580.16861	0.201745786	1.666909873	4.343467989	4.944749532	14.31050323	0.100252474
LHDT2	5.19514358	0.207893943	0.217293985	3256.664302	0.042410077	0.513088787	0.913063984	1.039462641	3.031176047	0.030858549
MHDT	18.77147032	0.128517381	0.134328367	5737.227258	0.030568711	0.903902491	0.658135969	0.749237702	1.148004581	0.054328111
Total	146.7293968	1.881587537	1.966664576	39220.4801	0.410856494	6.179202612	8.845550852	10.07003697	25.67468982	0.371478983
Weighted Average	7.545980515	0.096766041	0.101141372	2017.025797	0.021129475	0.317783236	0.45490785	0.517880564	1.32039464	0.019104373

Max Trucks per Day—HHDT	5.86
Max Trucks per Day—LHDT1	8.83
Max Trucks per Day—LHDT2	2.29
Max Trucks per Day—MHDT	2.46
Total	19.44

For Weighted Average for Project (Idle)

	PM10_IDLEX
Weighted Average Using Project Truck Fleet Percentages	(g/d)
HHDT	0.352022682
LHDT1	0.012236249
LHDT2	0.012276975
MHDT	0.079729572
HHDT	2.063475133
LHDT1	0.108013454
LHDT2	0.028131765
MHDT	0.196468258
Total	2.39608861
Weighted Average	0.123225736

Diesel PM Screening — Prioritization Calculator

Applicability	Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in grey areas.
Author (Prioritization Calculator)	Matthew Cegielski *Last Update* October 13, 2016
Date Updated with Project Emissions	April 19, 2024
Facility:	**Madera County Derrel's Mini Storage Project - Phases 1 & 2 + RV Storage Developed**
ID#:	**(Diesel PM Screening Analysis)**
Project #:	**Truck Run and Idle Emissions**
Unit and Process#	**Mobile Source Diesel (Trucks Visiting the Mini Storage Project)**

Operating Hours hr/yr	3,548.66	**(operating hours assumed based on idle hours)**		
Receptor Proximity and Proximity Factors	**Cancer Score**	**Chronic Score**	**Acute Score**	**Max Score**
0< R<100 1.000	1.65E+00	6.03E-03	0.00E+00	1.65E+00
100≤R<250 0.250	4.12E-01	1.51E-03	0.00E+00	4.12E-01
250≤R<500 0.040	6.59E-02	2.41E-04	0.00E+00	6.59E-02
500≤R<1000 0.011	1.81E-02	6.64E-05	0.00E+00	1.81E-02
1000≤R<1500 0.003	4.95E-03	1.81E-05	0.00E+00	4.95E-03
1500≤R<2000 0.002	3.30E-03	1.21E-05	0.00E+00	3.30E-03
2000<R 0.001	1.65E-03	6.03E-06	0.00E+00	1.65E-03

Receptor proximity is in meters. Priortization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.

Mobile Source Diesel (Trucks Visiting the Mini Storage Project)

Enter the unit's CAS# of the substances emitted and their amounts.

Prioritzation score for each substance generated below. Totals on last row.

Substance	CAS#	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Average Hourly (lbs/hr)	Cancer	Chronic	Acute
Diesel engine exhaust, particulate matter (Diesel PM)	9901	7.14E-01	6.29E-04	2.01E-04	1.65E+00	6.03E-03	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				Totals	**1.65E+00**	**6.03E-03**	**0.00E+00**

Health Risk Screening

Operational Screening Calculations and Prioritization (Phases 1 - 3 Developed Scenario)

Derrel’s Mini Storage Project—Madera County, CA—Health Risk Screening Analysis for Project Operations (Phases 1 - 3 Developed)

Diesel Truck Trips

	Trucks Onsite Daily	Average Daily Truck Trips
Heavy Truck Trips	**24.16**	**48.31**

Truck Assumptions

Trucks Onsite per Day	24.16
Trucks Onsite per Year	8,817.5
Idling Events per Truck per day	2
Idling Time per Event (minutes)	15
Idling Minutes/Year	264,524
Idling Hours/Year	4,409

	Truck Entering	Trucks Exiting	Total
Average Travel Distance Onsite (ft)	660	660	1,320

(0.25 mile on-site and 0.25 mile off-site assumed for this localized assessment - mini storage project)

	Miles/Trip	Truck Trips/Year	Miles/Year
Offsite Miles Estimate	0.25	17,634.9	4,408.7

	Distance Onsite (ft) in and out	Distance to Receptor Meters	Direction to Receptor	Idling Emissions (lbs/year)	Running Emissions (lbs/yr)	Total Truck Emissions (lbs/year)	Grand Total (lbs/yr)	Average Lbs/Day	Max Lbs/Day*	Max lbs/Hr
Emissions	1,320	<100 M	All	0.10	0.76	**0.8626**	0.86	0.00236	0.00709	0.00059

*Max daily assumed to be 3 times the daily average. Max hr based on 12 hrs/day

Running Emission Calculations	**EMFAC2021 Rates**
Idling Emission Rate for Diesel g/day	0.12323
g/lb conversion factor	0.00220
HDT Onsite Running Emissions 5 mph g/mile	0.10114
HDT Running Emissions Onroad 5-25 mph	0.05595

EMFAC2021 PM10 running emissions Aggregated Fleet Age in 2024

EMFAC2021 Average Running Emissions

	PM10_RUNEX 5-25 MPH	PM10 RUNEX 5 MPH
Weighted Averages (Based on Project Fleet)	**0.05595**	**0.10114**

	Distance (Feet)	Distance (Miles)	Miles/Year/ Truck	Trucks/Day	Emission (g/mi)	Emissions g/year	Emission lbs/year	Emissions lbs/hour
Onsite Running Emissions	1,320.00	0.25	91.3	24.2	0.10114	222.95	0.49	0.0001122

	Distance (Feet)	Miles/ Round Trip	Miles/Year/ Truck	Trucks/Day	Emissions Rate (g/mi)	Emissions g/year	Emission lbs/year	Emissions lbs/hour
Offsite Running Emissions	1,320.00	0.25	91.25	24.2	0.05595	123.33	0.27	6.207E-05
						Total Running	**0.76341**	**0.00017**

Total Emissions	**Lbs/Year**	**Max Lbs/Hours**
Onsite Running Emissions	0.4915	0.0001122
Offsite Running Emissions	0.2719	0.0000621
Idling Emissions	0.0992	0.0005908
Total	**0.8625714**	**0.0007651**

Health Risk Prioritization Results (Receptor 0-100 M)

	Cancer Score	Chronic Score	Acute Score
Prioritization Score Truck Run and Idle	**1.99254**	**0.00587**	**0.00000**

Operational Fuel Calculation—Project-generated Operational Trips

Daily Truck Trips

Derrel's Mini Storage Project—Madera County, CA - Buildout Year Operations (Phases 1 - 3 Developed)

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
General Office Building	8.71536	1.77684	0.5628	2394.214371	127.5183685	25.99774857	8.234580994	35030.83184
Unrefrigerated Warehouse-No Rail	251	251	251	91615	3672.494367	3672.494367	3672.494367	1340460.444
Unrefrigerated Warehouse-No Rail	174	174	174	63510	2545.872589	2545.872589	2545.872589	929243.4949
Single Family Housing	9.430943	9.480948	8.480848	3395.360931	138.5859689	139.3207831	124.624498	49894.20297
Parking Lot	0	0	0	0	0	0	0	0
Unrefrigerated Warehouse-No Rail	123	123	123	44895	1799.668554	1799.668554	1799.668554	656879.0223

	Weekday	Saturday	Sunday	Total Average Daily Trips
Trips per Day	566	559	557	**564**

Madera County Fleet Mix for the 2027 Operational Year

	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Project Fleet Mix (out of 100)	45.385581	4.115270	20.801936	17.907368	3.889877	1.009746	1.085874	2.583062	0.062740	0.022538	2.454324	0.214159	0.467524
Project Fleet Mix (out of 1)	0.453856	0.041153	0.208019	0.179074	0.038899	0.010097	0.010859	0.025831	0.000627	0.000225	0.024543	0.002142	0.004675
Daily Trips													
Project Total	**255.9120**	**23.2044**	**117.2942**	**100.9728**	**21.9335**	**5.6936**	**6.1228**	**14.5649**	**0.3538**	**0.1271**	**13.8390**	**1.2076**	**2.6362**

Heavy Trucks Only	Trips/Day	Truck Fleet	Truck Fleet
LHD1	21.934	0.453971	45.397099
LHD2	5.694	0.117843	11.784310
MHD	6.123	0.126728	12.672769
HHD	14.565	0.301458	30.145823
Heavy Trucks Total	*48.315*	1.000000	100.000000

On-site Truck Running and Idling Emissions for the Health Risk Screening Analysis—Derrel's Mini Storage Project—Madera County, CA (Phases 1 - 3 Developed)

Source: EMFAC2021 (v1.0.2) Emission Rates
Region Type: County
Region: Tulare
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, g/mile for RUNEX, PMBW and PMTW, mph for Speed, kWh/mile for Energy Consumption, gallon/mile for Fuel Consumption. PHEV calculated based on total VMT.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	SOx_RUNEX
Madera	2027	HHDT	Aggregate	5	Diesel	176.2601564	16.89650032	0.098744452	0.103209238	3351.620444	0.023223698	0.528049166	0.499999853	0.569211772	1.225740515	0.031737841
Madera	2027	HHDT	Aggregate	10	Diesel	3109.571921	8.368718152	0.016343044	0.017082004	2618.019117	0.004487511	0.412469978	0.096614883	0.109988689	0.682371579	0.024791075
Madera	2027	HHDT	Aggregate	15	Diesel	7324.140312	5.227523891	0.008705434	0.009099056	2113.535102	0.001730115	0.332988316	0.037248895	0.042405032	0.365577053	0.020013914
Madera	2027	HHDT	Aggregate	20	Diesel	11354.8769	3.757567676	0.006356073	0.006643467	1883.29576	0.001031079	0.296714014	0.022198847	0.025271698	0.249057545	0.017833685
Madera	2027	HHDT	Aggregate	25	Diesel	8895.708039	3.07697849	0.006343982	0.006630828	1697.775374	0.0008026	0.267485202	0.017279764	0.019671696	0.194367328	0.016076918
						Total	37.32728853	0.136492986	0.142664593	11664.2458	0.031275003	1.837706675	0.673342242	0.766548887	2.71711402	0.110453433
Madera	2027	LHDT1	Aggregate	5	Diesel	1725.026809	2.687043028	0.109473507	0.114423413	1198.568995	0.022854668	0.188835033	0.492047552	0.560163424	1.621158047	0.01135705
Madera	2027	LHDT1	Aggregate	10	Diesel	5736.500368	2.499308811	0.089280646	0.093317521	1037.711083	0.018607898	0.163491804	0.400617079	0.45607591	1.288163552	0.00983284
Madera	2027	LHDT1	Aggregate	15	Diesel	12423.61642	2.341225951	0.073351755	0.076668396	867.0759621	0.01535714	0.136608171	0.330630189	0.376400488	1.032454891	0.008215985
Madera	2027	LHDT1	Aggregate	20	Diesel	13620.2964	2.205710903	0.060476371	0.063210844	749.6149051	0.012776168	0.118102134	0.275063368	0.313141357	0.829843685	0.007102982
Madera	2027	LHDT1	Aggregate	25	Diesel	14577.35082	2.103916185	0.049972029	0.052231542	651.8325066	0.01068105	0.102696477	0.229956723	0.26179044	0.666874517	0.006176444
						Total	11.83720488	0.382554308	0.399851716	4504.803452	0.080276924	0.709733618	1.728314911	1.96757162	5.438494692	0.042685302
Madera	2027	LHDT2	Aggregate	5	Diesel	677.76946	2.267210973	0.09072693	0.0948292	1421.239842	0.018508168	0.223916916	0.398469965	0.453631564	1.322834584	0.01346697
Madera	2027	LHDT2	Aggregate	10	Diesel	2253.892366	2.054010209	0.075122152	0.078518842	1239.390666	0.015450933	0.195266504	0.332649501	0.378699341	1.068410782	0.011743856
Madera	2027	LHDT2	Aggregate	15	Diesel	4881.285174	1.87069998	0.062452437	0.06527626	1055.423506	0.013015658	0.166282403	0.280219458	0.319011223	0.864565897	0.010000674
Madera	2027	LHDT2	Aggregate	20	Diesel	5351.465199	1.711563634	0.051974989	0.054325067	913.6596385	0.011012227	0.143947448	0.237086753	0.269907506	0.697312072	0.008657389
Madera	2027	LHDT2	Aggregate	25	Diesel	5727.495444	1.585265502	0.043271011	0.045227534	794.1722113	0.00933345	0.125122155	0.200943684	0.228761025	0.558868195	0.007525185
						Total	9.488750298	0.323547519	0.338176902	5423.885865	0.067320437	0.854535427	1.449369362	1.650010658	4.51199153	0.051394075
Madera	2027	MHDT	Aggregate	5	Diesel	132.2279371	7.617725743	0.052154155	0.054512334	2328.24723	0.012405211	0.366816299	0.2670808	0.30405116	0.465876348	0.022047109
Madera	2027	MHDT	Aggregate	10	Diesel	1451.496121	3.108934452	0.027763174	0.029018501	1958.983872	0.006029992	0.308638707	0.129824081	0.147794834	0.346624129	0.018550406
Madera	2027	MHDT	Aggregate	15	Diesel	2513.828004	1.924538315	0.01695006	0.017716466	1539.204899	0.002864176	0.242502359	0.061664913	0.07020081	0.215207326	0.01457535
Madera	2027	MHDT	Aggregate	20	Diesel	3290.280835	1.451478716	0.010678088	0.011160904	1311.526805	0.001410006	0.206631582	0.030357033	0.034559171	0.152180316	0.012419375
Madera	2027	MHDT	Aggregate	25	Diesel	4515.063508	1.200320957	0.008356586	0.008734434	1184.559139	0.00102447	0.186627775	0.022056549	0.025109702	0.122382313	0.011217067
						Total	15.30299818	0.115902062	0.121142639	8322.521945	0.023733854	1.311216722	0.510983376	0.581715677	1.302270432	0.078809306

Running Emissions 5-25 MPH Averaged

	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	SOx_RUNEX
HHDT	**7.4655**	**0.0273**	**0.0285**	**2332.8492**	**0.0063**	**0.3675**	**0.1347**	**0.1533**	**0.5434**	**0.0221**
LHDT1	**2.3674**	**0.0765**	**0.0800**	**900.9607**	**0.0161**	**0.1419**	**0.3457**	**0.3935**	**1.0877**	**0.0085**
LHDT2	**1.8978**	**0.0647**	**0.0676**	**1084.7772**	**0.0135**	**0.1709**	**0.2899**	**0.3300**	**0.9024**	**0.0103**
MHDT	**3.0606**	**0.0232**	**0.0242**	**1664.5044**	**0.0047**	**0.2622**	**0.1022**	**0.1163**	**0.2605**	**0.0158**

HHDT		**LHDT1**		**LHDT2**		**MHDT**	
Localized Miles per Trip	0.50	Miles per Trip	0.50	Miles per Trip	0.50	Miles per Trip	0.50
Daily Trucks	7.28	Daily Trucks	10.97	Daily Trucks	2.85	Daily Trucks	3.06
Daily Trips	14.56	Daily Trips	21.93	Daily Trips	5.69	Daily Trips	6.12

Onsite Truck Max Daily Emissions	**ROG**	**NO_X**	**CO**	**SO2**	**PM10**	**PM2.5**
HHDT (g/day)	0.9807	54.3668	3.9575	0.1609	0.2078	0.1988
LHDT1 (g/day)	3.7908	25.9632	11.9285	0.0936	0.8770	0.8391
LHDT2 (g/day)	0.8252	5.4025	2.5689	0.0293	0.1925	0.1842
MHDT (g/day)	0.3129	9.3698	0.7974	0.0483	0.0742	0.0710
Total Trucks (g/day)	5.9096	95.1023	19.2523	0.3320	1.3515	1.2931
Running Emissions lbs/day	0.0130	0.2097	0.0424	0.0007	0.0030	0.0029
Idling Emissions Lbs/Day	0.118	1.418	1.744	0.003	0.002	0.001
Total Emissions/Day	**0.131**	**1.628**	**1.786**	**0.0033**	**0.004**	**0.004**
g/lb conversion factor		0.00220				

Idling Minutes/Day Per Truck	15
Max Trucks per Day	24.16
Number Idling Trucks per Day	24.16
Max Trucks per Day—HHDT	7.28
Max Trucks per Day—LHDT1	10.97
Max Trucks per Day—LHDT2	2.85
Max Trucks per Day—MHDT	3.06

Idling Emissions	Calendar Year	Season	Region	Vehicle Category	Fuel	Pollutant	g/vehicle/day	g/day	Max lbs/day
IDLEX	2027	Annual	Madera	HHDT	Diesel	ROG	7.0532	51.3645	0.113239
IDLEX	2027	Annual	Madera	LHDT1	Diesel	ROG	0.1098	1.2037	0.002654
IDLEX	2027	Annual	Madera	LHDT2	Diesel	ROG	0.1098	0.3125	0.000689
IDLEX	2027	Annual	Madera	MHDT	Diesel	ROG	0.2185	0.6690	0.001475
IDLEX	2027	Annual	Madera	HHDT	Diesel	NOx	79.5566	579.3675	1.277287
IDLEX	2027	Annual	Madera	LHDT1	Diesel	NOx	2.1691	23.7885	0.052445
IDLEX	2027	Annual	Madera	LHDT2	Diesel	NOx	2.0951	5.9643	0.013149
IDLEX	2027	Annual	Madera	MHDT	Diesel	NOx	11.1854	34.2430	0.075493
IDLEX	2027	Annual	Madera	HHDT	Diesel	CO	103.8035	755.9439	1.666571
IDLEX	2027	Annual	Madera	LHDT1	Diesel	CO	0.9097	9.9770	0.021995
IDLEX	2027	Annual	Madera	LHDT2	Diesel	CO	0.9097	2.5898	0.005710
IDLEX	2027	Annual	Madera	MHDT	Diesel	CO	7.3454	22.4872	0.049576
IDLEX	2027	Annual	Madera	HHDT	Diesel	SO2	0.1475	1.0744	0.002369
IDLEX	2027	Annual	Madera	LHDT1	Diesel	SO2	0.0013	0.0140	0.000031
IDLEX	2027	Annual	Madera	LHDT2	Diesel	SO2	0.0020	0.0058	0.000013
IDLEX	2027	Annual	Madera	MHDT	Diesel	SO2	0.0204	0.0623	0.000137
IDLEX	2027	Annual	Madera	HHDT	Diesel	PM10	0.0332	0.2420	0.000534
IDLEX	2027	Annual	Madera	LHDT1	Diesel	PM10	0.0275	0.3012	0.000664
IDLEX	2027	Annual	Madera	LHDT2	Diesel	PM10	0.0276	0.0785	0.000173
IDLEX	2027	Annual	Madera	MHDT	Diesel	PM10	0.0201	0.0616	0.000136
IDLEX	2027	Annual	Madera	HHDT	Diesel	PM2.5	0.0318	0.2315	0.000510
IDLEX	2027	Annual	Madera	LHDT1	Diesel	PM2.5	0.0263	0.2882	0.000635
IDLEX	2027	Annual	Madera	LHDT2	Diesel	PM2.5	0.0264	0.0751	0.000165
IDLEX	2027	Annual	Madera	MHDT	Diesel	PM2.5	0.0193	0.0590	0.000130

For Weighted Average for Project (5-25 MPH)

	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	SOx_RUNEX
Weighted Average Using Project Truck Fleet Percentages										
HHDT	7.465457707	0.027298597	0.028532919	2332.849159	0.006255001	0.367541335	0.134668448	0.153309777	0.543422804	0.022090687
LHDT1	2.367440975	0.076510862	0.079970343	900.9606903	0.016055385	0.141946724	0.345662982	0.393514324	1.087698938	0.00853706
LHDT2	1.89775006	0.064709504	0.06763538	1084.777173	0.013464087	0.170907085	0.289873872	0.330002132	0.902398306	0.010278815
MHDT	3.060599637	0.023180412	0.024228528	1664.504389	0.004746771	0.262243344	0.102196675	0.116343135	0.260454086	0.015761861
HHDT	54.36683663	0.198800721	0.207789607	16988.86178	0.045551741	2.676602093	0.980716498	1.116471079	3.957450429	0.160874362
LHDT1	25.96317154	0.839076726	0.877016053	9880.625196	0.176075651	1.556696523	3.79080509	4.315579565	11.92853989	0.093623945
LHDT2	5.402486204	0.184214038	0.19254338	3088.12727	0.03832936	0.486535709	0.825208561	0.939445084	2.568933867	0.029261575
MHDT	9.369761002	0.070964827	0.074173542	5095.736184	0.014531828	0.802835311	0.31286628	0.356174444	0.797357652	0.048253574
Total	95.10225537	1.293056313	1.351522581	35053.35043	0.274488581	5.522669636	5.909596429	6.727670172	19.25228184	0.332013457
Weighted Average	3.936772613	0.053526267	0.055946487	1451.038879	0.011362497	0.228611766	0.244628661	0.27849295	0.796951193	0.013743749

Max Trucks per Day—HHDT	7.28
Max Trucks per Day—LHDT1	10.97
Max Trucks per Day—LHDT2	2.85
Max Trucks per Day—MHDT	3.06
Total	24.16

For Weighted Average for Project (5 MPH)

	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	SOx_RUNEX
Weighted Average Using Project Truck Fleet Percentages										
HHDT	16.89650032	0.098744452	0.103209238	3351.620444	0.023223698	0.528049166	0.499999853	0.569211772	1.225740515	0.031737841
LHDT1	2.687043028	0.109473507	0.114423413	1198.568995	0.022854668	0.188835033	0.492047552	0.560163424	1.621158047	0.01135705
LHDT2	2.267210973	0.09072693	0.0948292	1421.239842	0.018508168	0.223916916	0.398469965	0.453631564	1.322834584	0.01346697
MHDT	7.617725743	0.052154155	0.054512334	2328.24723	0.012405211	0.366816299	0.2670808	0.30405116	0.465876348	0.022047109
HHDT	123.0479508	0.719101725	0.751616314	24408.01466	0.169125465	3.845492649	3.64122488	4.145257351	8.926396335	0.231129303
LHDT1	29.46817251	1.200570346	1.254854809	13144.42588	0.250641802	2.07090965	5.396170433	6.143181276	17.77886118	0.124550115
LHDT2	6.454261952	0.258280055	0.269958333	4045.964114	0.052688774	0.637443294	1.134358279	1.291391483	3.765825511	0.038337566
MHDT	23.32100832	0.159665432	0.166884794	7127.727469	0.037977482	1.122976365	0.817644763	0.930826323	1.426240136	0.067495317
Total	182.2913936	2.337617557	2.44331425	48726.13211	0.510433522	7.676821958	10.98939835	12.51065643	31.89732316	0.461512301
Weighted Average	7.545980515	0.096766041	0.101141372	2017.025797	0.021129475	0.317783236	0.45490785	0.517880564	1.32039464	0.019104373

Max Trucks per Day—HHDT	7.28
Max Trucks per Day—LHDT1	10.97
Max Trucks per Day—LHDT2	2.85
Max Trucks per Day—MHDT	3.06
Total	24.16

For Weighted Average for Project (Idle)

	PM10_IDLEX
Weighted Average Using Project Truck Fleet Percentages	(g/d)
HHDT	0.352022682
LHDT1	0.012236249
LHDT2	0.012276975
MHDT	0.079729572
HHDT	2.56358825
LHDT1	0.134192081
LHDT2	0.034949906
MHDT	0.244085188
Total	2.976815426
Weighted Average	0.123225736

Diesel PM Screening — Prioritization Calculator

Applicability	Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in grey areas.
Author (Prioritization Calculator)	Matthew Cegielski *Last Update* October 13, 2016
Date Updated with Project Emissions	April 19, 2024
Facility:	**Madera County Derrel's Mini Storage Project - Phases 1 - 3 Developed**
ID#:	**(Diesel PM Screening Analysis)**
Project #:	**Truck Run and Idle Emissions**
Unit and Process#	**Mobile Source Diesel (Trucks Visiting the Mini Storage Project)**

Operating Hours hr/yr	4,409.00	**(operating hours assumed based on idle hours)**		
Receptor Proximity and Proximity Factors	**Cancer Score**	**Chronic Score**	**Acute Score**	**Max Score**
0< R<100 1.000	1.99E+00	5.87E-03	0.00E+00	1.99E+00
100≤R<250 0.250	4.98E-01	1.47E-03	0.00E+00	4.98E-01
250≤R<500 0.040	7.97E-02	2.35E-04	0.00E+00	7.97E-02
500≤R<1000 0.011	2.19E-02	6.46E-05	0.00E+00	2.19E-02
1000≤R<1500 0.003	5.98E-03	1.76E-05	0.00E+00	5.98E-03
1500≤R<2000 0.002	3.99E-03	1.17E-05	0.00E+00	3.99E-03
2000<R 0.001	1.99E-03	5.87E-06	0.00E+00	1.99E-03

Receptor proximity is in meters. Priortization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.

Mobile Source Diesel (Trucks Visiting the Mini Storage Project)

Enter the unit's CAS# of the substances emitted and their amounts.

Prioritzation score for each substance generated below. Totals on last row.

Substance	CAS#	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Average Hourly (lbs/hr)	Cancer	Chronic	Acute
Diesel engine exhaust, particulate matter (Diesel PM)	**9901**	8.63E-01	7.65E-04	1.96E-04	1.99E+00	5.87E-03	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				Totals	**1.99E+00**	**5.87E-03**	**0.00E+00**

BIOLOGICAL RESOURCE ASSESSMENT

Avenue 12 at Road 39 ½
Madera County, California

APNs: 049-022-017 (20.12 acres)

Prepared for:

Derrel's Mini Storage

ARGONAUT ECOLOGICAL CONSULTING, INC.

November 14, 2023

Table of Contents

List of Figures

List of Tables

Attachments Attachment A: Photographs

1.0 EXECUTIVE SUMMARY AND INTRODUCTION

EXECUTIVE SUMMARY

Argonaut Ecological, Inc. conducted a biological evaluation of an approximately 20-acre site at the northeast corner of Avenue 12 and Road 39 ½ in Madera County.

The assessment included evaluating the types of habitats present and sensitive species associated with those habitats. The biological evaluation focused on mapping existing habitat types based on a site walk and a review of public and commercial databases, aerial photographs (current and historical), and other published information and available data.

The Study Area has been historically agricultural (orchards and row crops) but is currently fallow. There are no sensitive habitats within the Study Area, including waters/wetlands or critical habitat for species of concern. The Study Area likely does not support suitable habitat for special status species, except for one ground-nesting bird (California horned lark). It's unlikely that the species nest on the site currently, but it could if the site remains undisturbed until the next breeding season (Feb-Aug).

1.1 INTRODUCTION

Argonaut conducted a biological resource assessment of the approximately 20-acre site. The property is vacant and is located within an agricultural area. Derrel's Mini Storages proposes to build a mini storage facility on a phased plan. The phasing would depend on market conditions.

1.2 STUDY OBJECTIVES

This report describes the biological resources present within and adjacent to the Study Area, describes the area's biological characteristics, and evaluates the Study Area's likelihood to support sensitive biological resources (such as wetlands, creeks/drainages, and special status species). This evaluation relied on available literature, aerial photography, historic topographic and aerial maps, and a site visit. For this study, wetland habitat includes those areas possibly considered "Waters of the U.S." by the U.S. Army Corps of Engineers (Army Corps) or Waters of the State of California. Section 1.2.1 describes wetlands as a subset of "Waters of the U.S." under the Federal Clean Water Act (CWA).

This report assesses the project's potential effects on biological resources and evaluates whether any associated regulatory approvals or permits are required. This report also evaluates the potential impacts that site development may have on protected habitat, species protected by the Federal Endangered Species Act (ESA), or those protected under the California Environmental Quality Act (CEQA) or California Endangered Species Act (CESA).

Figure 1

REGIONAL LOCATION AND VICINITY

DERREL'S MINI STORAGE

Madera County, CA

ARGONAUT ECOLOGICAL CONSULTING INC.

Basemap Source: ESRI (2023)

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1.3 REGULATORY JURISDICTION AND BACKGROUND

Several agencies share regulatory jurisdiction over biological resources. The following is a brief description of the primary jurisdiction of each agency.

Wetland Protection

U.S. Army Corps of Engineers

Wetlands are a type of water in the U.S. The U.S. Army Corps of Engineers (Army Corps) and the U.S. Environmental Protection Agency (EPA) regulate the placement of fill into the Waters of the U.S. under Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbor Act. For this purpose, "Waters of the U.S." is legally defined under Section 404 of the Federal CWA and includes interstate streams, creeks, and adjacent wetlands. The Army Corps defines wetlands as "*those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions*" (Environmental Laboratory 1987). In California, seasonally inundated areas that meet the criteria of all three wetland parameters (soils, hydrology, and vegetation), as defined in the recently issued Wetland Delineation Manual for the Arid West (USACE 2006), are also considered jurisdictional wetlands.

Since 2001, several U.S. Supreme Court rulings regarding the regulation of isolated, intrastate Waters by the Army Corps have limited the scope of federal jurisdiction under the CWA and excluded many California wetlands from federal regulation.

In December 2019, the U.S. EPA and the U.S. Army published the final rule to repeal the 2015 Clean Water Rule. The "Clean Water Rule" clarified what constitutes Waters of the U.S., and presumably, more precisely defined and made permitting more predictable, thus less costly, and more straightforward.

After several challenges to the "Clean Water Rule," the U.S. EPA and the Department of the Army proposed the pre-2015 (pre-Obama-era rules) definition "of Waters of the United States," updated to reflect consideration of Supreme Court decisions. The new rule went into effect on May 23, 2023; however, on May 25, 2023, the U.S. Supreme Court issued a decision in the case of *Sackett v. Environmental Protection Agency that rolled back the definition of Waters of the U.S. to better align with the original definition as included in the Rapanos decision*. The new definition limits "Waters" as "limited geographic[al] features that are described in ordinary parlance as 'streams, oceans, rivers, and lakes" and to "adjacent wetlands that are 'indistinguishable' from those bodies of water due to a continuous surface connection." The prior use of a "significant nexus" was set aside by the Court.

Waters typically do not include prior converted cropland (those areas converted before December 23, 1985). Notwithstanding the classification of a wetland as a prior converted cropland by any federal agency for the CWA, the final authority to determine jurisdiction remains with the U.S. EPA.

California State Water Resources Control Board

Since 1993, California has had a Wetlands Conservation Policy (a.k.a. Executive Order W-51 59-93). It is commonly called the *No Net Loss policy* for wetlands, establishing a state mandate for developing and adopting a policy framework and strategy to protect the State's wetland ecosystems. The policy was to be implemented voluntarily and was expressly not to be implemented on a "project-by-project" basis (See EO W-59-93, Section III).

In 2020, California adopted the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. The State definition of wetland differs from the Federal definition in that the state definition may include areas with no vegetation, assuming the other criteria are present. Wetlands of the State include 1) natural wetlands, 2) wetlands created by modification of Waters of the State (at any point in history), and 3) artificial wetlands that meet specific criteria. The State definition only exempts a few types of Waters. Water features excluded from the State's definition include industrial or municipal wastewater, certain stormwater treatment facilities, agricultural crop irrigation, industrial processing or cooling, and fields flooded for rice growing.

Listed Protected Species and Habitat Protection

U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (USFWS) implements the Migratory Bird Treaty Act (16 USC Section 703-711), Bald and Golden Eagle Protection Act (16 United States Code [USC] Section 668), and Federal Endangered Species Act (FESA; 16 USC § 153 *et seq.)*.

The **Migratory Bird Treaty Act (MBTA**) was first enacted in 1918 to protect migratory birds between the United States and Great Britain (acting on behalf of Canada). The MBTA makes it illegal for anyone to take, possess, import, transport, purchase, barter, offer for sale, or purchase any migratory birds, nests, or eggs unless a federal agency has issued a permit. The USFWS has statutory authority and responsibility for enforcing the MBTA. This act was revised in 2004 to include all species native to the U.S. or its territories due to natural biological or ecological processes (70 FR 12710, March 15, 2005). The MBTA does not include nonnative species whose occurrences in the U.S. result solely from intentional or unintentional human introduction. The USFWS maintains a list of bird species not protected under the MBTA.

In January 2021, the USFWS published a new rule in the Federal Register. Under the rule change, the unintentional killing of migratory birds does not violate the MBTA. Only the intentional "pursuing, hunting, taking, capturing, killing, or attempting to do the same ... directed at migratory birds, their nests, or their eggs" would be illegal under the changes.

The **Federal Endangered Species Act (FESA)** prohibits "take" "of any federally listed wildlife species (the destruction of federally listed plants on private property is not prohibited and does not require a permit)**.** "Take" under the federal definition means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. "Incidental take" is harm or death that may occur during the implementation of an otherwise lawful activity. "Candidate

Species" do not have the full protection of FESA. However, the USFWS advises project applicants that it is prudent to address these species since they could be elevated to "listed status" before the completion of projects with long planning or development schedules.

The Projects that would result in "take" "of any federally-listed threatened or endangered species can obtain authorization from the USFWS through either Section 7 (interagency consultation) or Section 10(a) (incidental take permit) of FESA. The authorization process determines if a project would jeopardize a ‘listed species' continued existence and what mitigation measures would be required to avoid jeopardizing the species.

An Incidental Take Permit (ITP) or Take Permit is required when an activity would either kill, harm, harass or interrupt a listed species' breeding or nesting. The FESA definition of "harm" is somewhat less definitive since it includes ubiquitous activities. In 1999, the USFWS clarified the term "harm" as it applies to the ESA in the Federal Register. As stated, the final rule defined the term "harm" "to include any act that causes actual harm (kills or injures fish or wildlife) and emphasizes that such actions may have significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) is a Trustee Agency responsible under the California Environmental Quality Act (CEQA) for reviewing and evaluating project impacts on plant and wildlife resources. Under the Fish and Game Code Section 1802, the CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitats necessary for biologically sustainable populations. The California Fish and Game Code also provides authority for the CDFW to regulate projects that could result in the "take" of any species listed by the State as threatened or endangered (Section 2081). CDFW also has authority over all state streams, as described below.

Perennial and intermittent streams also fall under the jurisdiction of CDFW according to Sections 1601-1603 of the Fish and Game Code (Streambed Alteration Agreements). CDFW's jurisdictional extent includes work within the stream zone, including the diversion or obstruction of the natural flow or changes in the channel, bed, or bank of any river, stream, or lake. Before issuing a 1601 or 1603 Streambed Alteration Agreement, the CDFW must demonstrate compliance with CEQA. In most cases, CDFW relies on the CEQA review performed by the local lead agency. However, in cases where no CEQA review was required for the project, CDFW would act as the lead agency under CEQA.

The CDFW also has the authority to protect state-listed species issues under Section 2081 Incidental Take Permit if a project has the potential to negatively affect state-protected plant or animal species or their habitats, either directly or indirectly. Protected species include those "listed" by the State as endangered or threatened. Besides listed species, other species protection categories include "fully protected" and California Species of Special Concern (CSC). Adverse impacts to species that are "fully protected" are prohibited.

Under the California Fish & Game Code (FGC Section 3503), "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird…." Birds of prey (falcons, hawks, owls, and eagles) get extra protection under the law (FGC Section 3503.5).

As with USFWS, CDFW does not have the authority to require a landowner to apply for an ITP authorizing take. Instead, the landowner is legally obligated to avoid taking state-listed species if it does not seek an ITP. CDFW (and USFWS) can initiate an enforcement action if they believe that an illegal take has occurred or will occur.

California Endangered Species Act

The California Endangered Species Act (CESA) protects candidate plants and animal species and those listed under CESA as rare, threatened, or endangered. CESA prohibits the taking of any such species unless authorized. Section 2081 authorizes the State to issue ITPs. The state definition of taking applies only to acts that result in death or adverse impacts on protected species. The CESA mirrors the federal regulation as it relates to "take"; however, there is no State equivalent definition of "harm" or "harass." Incidental take is also not defined by the CESA statute or regulation. Unlike FESA, CESA does qualify that incidental take "is not prohibited if it is the result of an act that occurs on a farm or ranch during an otherwise lawful routine and ongoing agricultural activity." Where disagreement occurs (and in some cases, this has been the subject of court cases) is in the common understanding of “routine and ongoing agricultural activity."

California Environmental Quality Act

The CEQA Guidelines require a review of projects to determine their environmental effects and identify mitigation measures to reduce impacts to a less than significant level. The Guidelines state that an effect may be significant if it affects rare and endangered species. Section 15380 of the Guidelines defines *rare* to include listed species and allows agencies to consider rare species other than those designated as State or Federal threatened or endangered but that meet the standards for rare under the Federal or State endangered species acts. On this basis, plants designated as rare by non-regulatory organizations (e.g., California Native Plant Society), species of special concern defined by CDFW, candidate species defined by USFWS, and other designations must be considered in CEQA analyses.

Land Use Entitlements

Madera County

The Project site is located in Madera County. The County is responsible for all local land-use decisions within its jurisdiction under CEQA and would serve as the lead agency. As the lead agency, the County will consider other responsible agencies' recommendations during the CEQA review.

2.0 RESOURCES CONSULTED AND METHODS

The following section describes the methods used to assess the Study Area and includes data review and evaluation, field studies, and aerial photograph interpretations.

2.1 DATA AND LITERATURE REVIEW

Documents and sources of information used to prepare this evaluation include the following:

- Aerial photography (Google Earth®, Bing®, and historic aerials).
- California Department of Fish and Wildlife, California Natural Diversity Database (CNDDB/RareFind - Recent version with updates)
- EcoAtlas 2023.
- U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey of Fresno County (Soils mapper).
- U.S. Fish and Wildlife Service, National Wetland Inventory Map.
- U.S. Fish and Wildlife Service, Information for Planning and Consultation (IPaC) query, July 28, 2023.
- U.S. Geological Survey, Historical Topographic Map, Lanes Bridge Quadrangle, 1924, University of Texas, Austin, Perry-Castañeda Map Collection

Before conducting a site review, the California Natural Diversity Database/RareFind (CNDDB) and the USFWS IPaC were consulted to determine the species in the Study Area based on location. This review assesses the likelihood of special status species being present based on the site's distance from documented species occurrences and the presence or absence of habitat types such species use. The CNDDB includes records of reported observations for special status plant and animal species and is queried based on a search radius of United States Geological Survey (USGS) quadrangle maps. Argonaut reviewed high-resolution aerial photographs before conducting the fieldwork to determine if any areas on the site supported the presence of Waters of the U.S.

2.2 AERIAL PHOTOGRAPHY AND WETLAND MAPPING

Aerial photographs of the Study Area from the 1980s were reviewed to identify site features and determine land-use changes over time. Wetland mapping and aerial photographs were also reviewed to determine if the Study Area recently supported wetlands.

2.3 FIELD INVESTIGATION

The Study Area (See Figure 2) was walked on October 6, 2023, and all habitat features were mapped. The surveyor was Kathy Kinsland, a Senior Biologist with over 35 years of field experience. Soils, vegetation, and drainage patterns within the Study Area were inspected to determine the habitat present and suitability for species of concern. Walking transects were used to provide full coverage.

N

0 100 200
Feet

Study Area (±20 acres)

Figure 2

STUDY AREA/AERIAL

DERREL'S MINI STORAGE

Madera County, CA

ARGONAUT ECOLOGICAL CONSULTING INC.

Basemap Source: ESRI (2023)
Aerial Source: Google Earth (04/2021)

3.0 PHYSICAL RESOURCES, RESULTS, AND CONCLUSIONS

Section 3.1, below, describes the physical features (i.e., land use, soils, vegetation, hydrology, etc.) and the study area's biological features. The physical components and land use strongly influence the types of plants and animals present. This section also describes the habitats present and the specific biological resources observed during the site review.

Section 3.2 presents conclusions, and Section 3.3 contains recommended avoidance and minimization measures to avoid potential impacts.

The following is not an exhaustive inventory of plants and animals present. Instead, the discussion provides sufficient information to characterize the habitat and habitat components present on site. This field survey identified the biological resources present. The biological evaluation discusses the habitat present and the potential for that habitat to support any species considered unique, sensitive, or protected by current law. The conclusion section (3.2) summarizes the results of the data review, fieldwork, and evaluation of biological resources and potential impacts. The conclusion sections also include recommendations for measures to minimize any potential impacts.

3.1 PHYSICAL RESOURCES

Climate

The Study Area climate is typical of the central San Joaquin Valley, with long, hot, dry summers and cool, mild winters. In the winter, rainfall averages approximately 9.99 inches per year, falling mainly between November and April (Western Regional Climate Center, 2004). During 2021, the Fresno region had a total of 8.22 inches of rainfall; in 2022, there was a total of 5.43 inches. Since the fall of 2022, the regional rainfall near Fresno region totaled 21 inches (through May 2023).

Topography, Drainage, and Soils

<u>Topography and Drainage</u>*:*

The Study Area lies within the Central Valley and is 372 feet (above mean sea level). The elevation has remained roughly the same since the early 1900s. The Study Area slopes toward the southwest. Figure 3 shows a topographic map of the area from 1922.

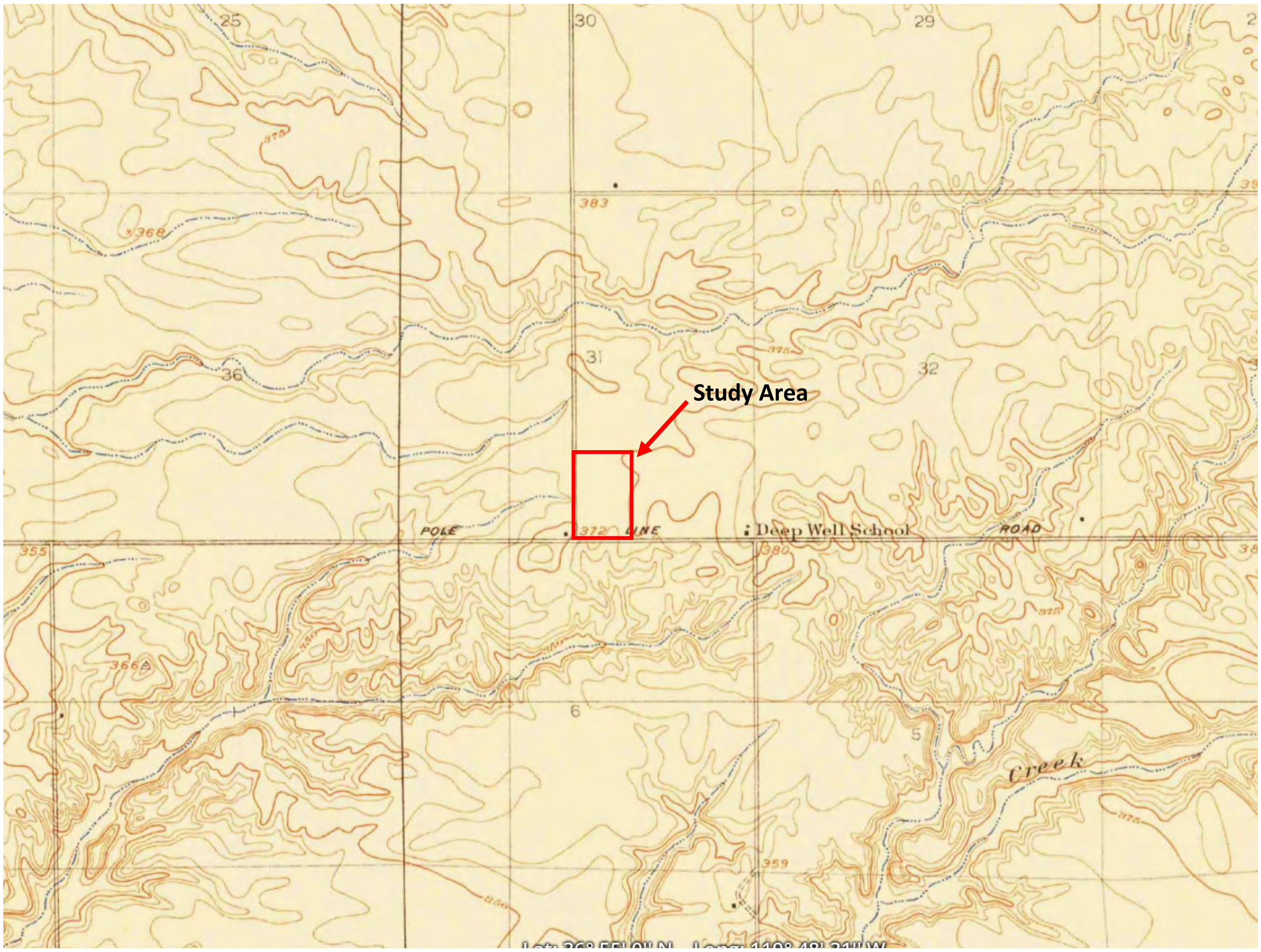

Figure 3

Topographic Map 1922

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Land Use

The Study Area is in a historically rural, agricultural area of Madera County. The property is currently zoned as AE-40 (agricultural). The surrounding land uses is agriculture. There are a few rural residential homes in the area, and a higher density residential developed to the southeast, closer to Highway 41.

The Study Area has been continuous agricultural production until 2017. Before 2018, the Study Area was planned in orchards. The orchards were removed, and the property has remained fallow but is routinely plowed.

Habitat

There are several California habitat classification systems. Most classification systems describe natural communities without established developed or agricultural habitat classifications. CALVEG is a USDA Forest Service product providing a comprehensive spatial dataset of existing vegetation covering California. The data were created using a combination of automated systematic procedures, remote sensing classification, photo editing, and field-based observations. Analyses are based "on a crosswalk (combination) of the CALVEG classifications to the California Wildlife Habitat Relationships (CWHR)."

Calveg lists the site as an "Agricultural/Non-native/Ruderal" habitat. Attachment "A" provides photographs of the Study Area.

Bird species observed include mourning dove, starling, and crow. No mammals or ground-burrowing mammals were present. No mature nesting trees or other nesting habitats are present within the Study Area.

Waters/Wetland

According to the National Wetland Inventory (NWI) Map (Figure 4), there are no mapped Waters (streams, drainages, wetlands) within the Study Area.

The entire Study Area was walked to look for any evidence of potential wetlands/waters habitat, wetlands Waters, or any other aquatic habitat (either perennial or seasonal), and none are present.

U.S. Fish and Wildlife Service

National Wetlands Inventory

Figure 4: NWI Mapping

November 3, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Special Status Species

A query of the California Natural Diversity Database (CNDDB) (Attachment B) and the USFWS IPaC was performed to determine which special status species could be present within the Study Area. No critical habitat exists for any species within or near the Study Area. The CNDDB Bios mapping is shown in Figure 5. This map shows the location of known records of special status species near the Study Area, and Table 1 includes a summary of the CNDDB query results.

No designated Critical Habitat exists for any listed species within or near the Study Area.

Birds

The CNDDB and the IPaC include several bird species that have the potential to be present within or near the Study Area, including migratory birds. There are no mature trees to support nesting by raptors. Swainson's hawk (*Buteo swainsoni)* is a large raptor, a State threatened species that nests in mature trees and forages within agricultural areas. Burrowing owl **(***Athenea cunicularia)* is a small ground-nesting owl (California species of special concern) that depends on ground-burrowing mammals for underground burrows for nesting. No ground burrowing mammals or evidence of burrows were found within the Study Area. Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is Federally threatened and a State endangered species. This bird nests in riparian zones in willow thickets. No suitable habitat is present within or near the Study Area for this species. California horned lark is a species of concern but has no listing status. This horned lark nests on the ground.

Invertebrates

Numerous invertebrate species are included in the CNDDB. The majority of the species are associated with wetland or vernal pool habitats. No suitable habitat is present for any invertebrate species.

Plants

The CNDDB includes six special status species listed within the region. All but one of the species is associated with wetland or vernal pool species. No suitable habitat exists for any special-status plant species within or near the Study Area.

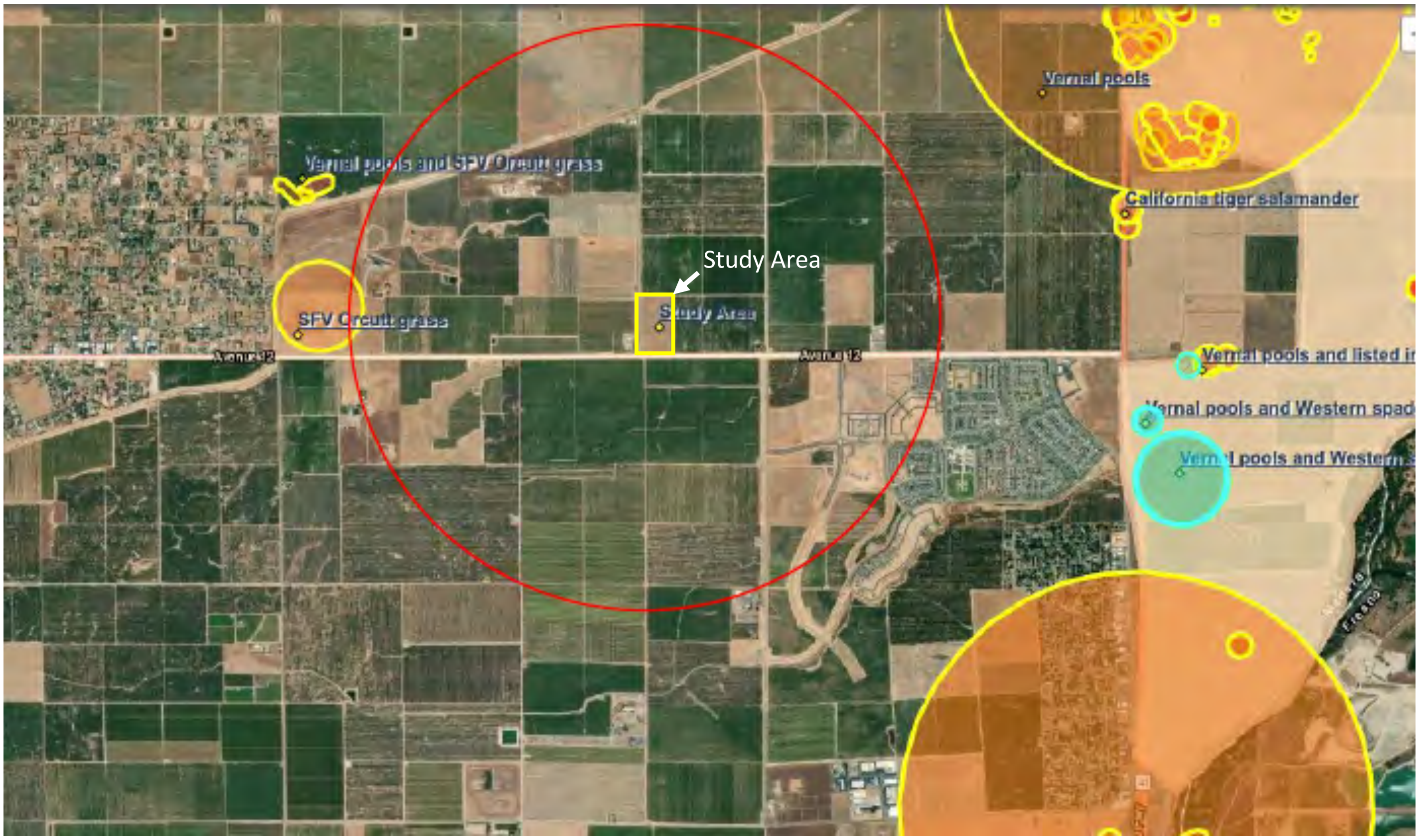

Figure 3

CNDDB BIOS Mapping

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Table 1
Summary of Special Status Species, Potential Occurrence, and Impact

Common Name	*Scientific Name*	*Status*[1]	*Effects*[2]	*Occurrence in the Study Area*[3]
Mammals				
American badger	*Taxidea taxus*	--/--	NE	**Absent. n** Occurs in open areas with a suitable prey base (small rodents and mammals). Burrows underground. No evidence of occupation within the Study Area and no suitable prey base was observed.
San Joaquin pocket mouse	*Perogrnaqthus inornatus*	--/--	NE	**Absent.** Occurs in grassland, arid scrubland, within fine-textured sandy, friable soil.
Birds				
Western yellow-billed cuckoo	*Coccyzus americanus occidental*	FT/CE	NE	**Absent.** Associated with riparian corridors near streams and other water bodies. No suitable habitat is present.
Burrowing owl	*Athenea cunicularia*	--/-- SSC	NE	**Absent.** Associated with a ground burrowing population (such as ground squirrels) that provide burrows. Found in open grassland with suitable prey base. No ground-burrowing animals within the Study Area. The potential for presence is very low without access to ground burrows.
Swainson's hawk	*Buteo swainsoni*	--/CT	NE	**Absent.** Nests in mature trees. There are no suitable nest trees within the Study Area. Hawk could occasionally forage within the area.
California horned lark	*Eremophilia alpestis actia*	--/--	ME	**Potentially present.** Horned Larks favor bare, dry ground and areas of short, sparse vegetation; they avoid places where grasses grow more than a couple of inches high. Horned lark also frequent areas cleared by humans, such as cultivated fields. Suitable habitat present. They nest on the ground in shallow depressions in early spring. Breeding and fledging occur within roughly 30 days.
Amphibians, Reptiles, and Invertebrates				
California tiger salamander	*Ambystoma californiense pop 1*	FT/CT	NE	**Absent.** Breeds in seasonal wetlands and vernal pools or stock ponds without a predator population of bullfrogs. No suitable breeding habitat is present, and no breeding habitat within 1.3 miles of the Study Area, thus indicating the site is not used for upland aestivation**.**
Western spadefoot	*Spea hammondii*	--/--	NE	**Absent.** Requires seasonal wetlands for breeding and no suitable habitat on or near the Study Area.

Vernal pool fairy shrimp	*Branchinecta lynchi*	FT/--	NE	**Absent**. No suitable habitat onsite since there are no seasonal wetlands or ponds within the Study Area.
Midvalley fairy shrimp	*Branchinecta mesovallensis*	--/--		**Absent**. No suitable habitat onsite since there are no seasonal wetlands or ponds within the Study Area.
Valley elderberry longhorn beetle	*Cesmocerus californicus dimorphus*	FT/CE		**Absent**. The host plant (elderberry shrubs) is not within or adjacent to the Study Area.
California linderiella	*Linderiella occidentalis*	--/--	NE	**Absent**. No suitable habitat onsite since there are no seasonal wetlands or ponds within the Study Area.
Molestan blister beetle	*Lytta molesta*	--/--	NE	**Absent.** Occurs in wetlands and vernal pools—no specific occurrence. No suitable habitat is present within the Study Area.
Plants				
Hoover's calycadenia	*Calycadenia hooveri*	--/--	NE	**Absent.** It is found in rocky areas in the hills along from Amador County to Madera County. Only one record in the vicinity – along the slopes of Table Mountain, east of the Study Area.
Succulent owl's-clover	*Castilleja campestris var. succulenta*	FT/CE	NE	**Absent.** Occurs in vernal pools/seasonal wetlands. No suitable habitat present within the impact area
Pincushion navarretia	*Naverrtia myersii ssp. myersii*	--/--	NE	**Absent.** Occurs in vernal pools/seasonal wetlands. No suitable habitat present within the impact area
Hairy Orcutt grass	*Orcuttia Pilosa*	FE/CE	NE	Absent. Occurs in vernal pools. No suitable habitat present within the Study Area. One record from 1979 east of Hwy 12/Road 38, but the vernal pool has been destroyed and land put in production.
San Joaquin Valley Orcutt grass	*Orcuttia inaequalis*	FT/CT	NE	**Absent.** Occurs in vernal pools/seasonal wetlands. No suitable habitat present within the impact area
Spiny-sepaled button-celery	*Eryngium spinosepalum*	--/--	NE	**Absent.** Occurs in seasonal wetlands. Suitable habitat is not present**.**

1 **Status= Listing of special status species, unless otherwise indicated**
CE: California listed as Endangered
CT: California listed as Threatened
CC: California candidate species
SSC: California Species of Special Concern
FE: Federally listed as Endangered
FT: Federally listed as Threatened

2 **Effects = Effect determination**
NE: No Effect
ME: May Effect, not likely to adversely affect

Source: CNDDB = California Natural Diversity Database provided by CDFG and U.S. Fish and Wildlife Service, Information for Planning and Consultation (IPaC). Accessed online between June 18, 2023.

3 **Definition of Occurrence Indicators**: **Present/Potentially**: Species recorded in the area and some habitat elements in the Study Area similar to known occurrences. **Absent/Likely Absent**: Species not recorded in Study Area and suitable or critical habitat components are absent.

3.2 CONCLUSIONS

CONCLUSIONS

- The Study Area has been in agricultural production for many decades (orchards and row crops) but was recently taken out of production.
- The habitat value of the Study Area is limited. The only wildlife observed were a few birds.
- The Study Area has no suitable nesting trees for tree-nesting raptors.
- The Study Area had no ground burrowing mammal burrows to support nesting for burrowing owl.
- The site may provide some suitable nesting habitat for the ground-nesting California horned lark, but it is unlikely to be present because of recurring disking.
- No potential waters (Federal or State waters) or wetlands within or near the Study Area exist.

RECOMMENDATIONS

- If the site remains fallow or undisturbed, a pre-construction survey for California horned lark may be advisable if ground disturbance associated with development is initiated during the nesting season (Feb 1 – Aug 31).

References

California Natural Diversity Database (CNDDB) Online. Subscription with updates. Available at: URL https://www.wildlife.ca.gov/Data/CNDDB

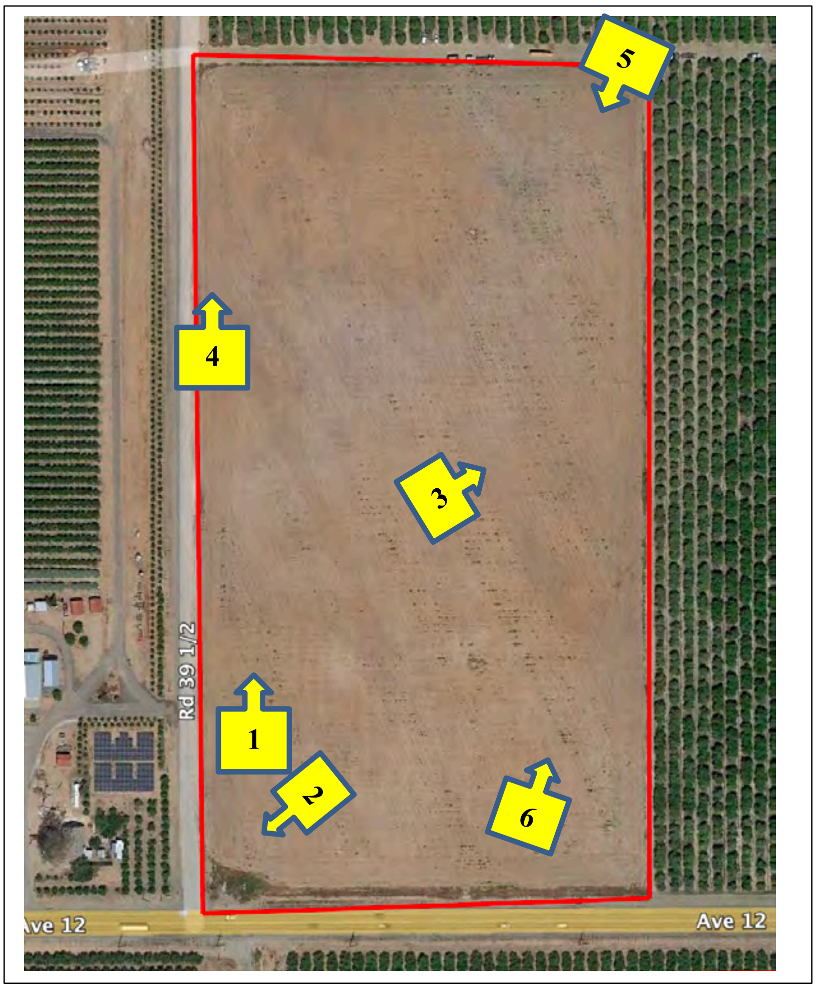
National Resource Conservation Service (NRCS), Web Soils Survey. Available at: URL https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

U.S. Fish and Wildlife Service. Information for Planning and Consultation (IPaC). Available at URL: https://ipac.ecosphere.fws.gov/

U.S. Fish and Wildlife Service, National Wetland Inventory Maps. Available at URL: https://www.fws.gov/wetlands/data/mapper.html

U.S. Geologic Survey, Historic topographic Map, Lanes Bridge. 1926, University of Texas, Austin, Perry-Castañeda Map Collection. Available at: URL: https://legacy.lib.utexas.edu/maps/

Attachment A: Photographs



Photograph Key

Avenue 12 at Road 39 ½

Fresno County, California

ARGONAUT ECOLOGICAL CONSULTING, INC.

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Photographic Documentation

Photographs: October 2023

Project: Avenue 12 at Road 39 12

Photograph 1

View looking north northwest from a parking area on the west side of the parcel

Photograph 2

View looking southeast toward the intersection of Road 39 ½ and Ave 12

Photographs: October 2023

Project: Avenue 12 at Road 39 ½, Madera County

Photograph 3

Typical view of habitat.

Photograph 4

View of the western edge of the Study Area looking north along Road 39 1/2

Photograph 5

View of Study Area looking southwest from the northwest corner

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Photograph 6

View of the eastern side of the Study Area showing habitat.

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An Employee Owned Company

455 W Fir Avenue
Clovis, CA 93611-0242
Tel: (559) 449-2700
Fax: (559) 449-2715
www.provostandpritchard.com

Memorandum

To:	Karen Kendall
From:	Owen Kubit
Subject:	Water Supply Analysis for Derrel's Mini Storage No. 86
Date:	June 5, 2024

This Memorandum documents a water supply analysis for the proposed Derrel's Mini Storage No. 86 in Madera County, California. Topics addressed include a description of the project site, historical water demands, estimated water demands, water supply options, selected water sources, water supply reliability, and designation as a public water system.

Project Description

The Derrel's Mini Storage No. 86 project will include 20.1 acres of developed mini storage units for rent. The facility will also have an on-site residence that will house two full-time occupants. A site plan of the project from February 2023 is included as **Attachment 1**. Water use facilities will include the on-site residence with two restrooms and laundry facilities, a customer restroom with a toilet and sink, on-site landscaping and a water feature.

Project Location

The project site is located on a 20.12-acre site (parcel no. 049-022-017) in unincorporated Madera County east of Madera Ranchos and west of the Riverstone development. The project site is located at the northeast corner of Avenue 12 and Road 39-1/2 (see **Attachment 2**). The project site is located within Madera Irrigation District 'Subordinate Lands', which are special lands that can only receive surface water after other District demands have been met, typically in wet years. The land is currently designated as AE (Agricultural Exclusive) in the General Plan and zoned as ARE-40 (Agricultural Rural Exclusive 40 acre).

Historical Water Demands

The land was previously cropped with citrus orchards according to DWR Land Use maps for 2014 and 2016. **Attachment 3** is a DWR Land Use Map for 2016. Aerial photographs and DWR Land Use Maps show that the trees were removed by 2018 and the land has been fallow ever since. An agricultural well is located on-site but it will be abandoned and replaced with a domestic well. Water use during the historical cropping is estimated to be 20 acres x 2.9 acre-feet/acre = 58 acre-feet/year. The water demands for the proposed mini-storage facility will be significantly lower, as described below.

Estimated Water Demands

Water demands will include domestic use by the resident manager, customer restroom, on-site landscaping, and a water feature. These water demands are described and estimated below.

On-Site Residence

The on-site residence will be long-term housing for the on-site manager. Up to two people will live in the residence. The State of California has established indoor water use goals of 50 gallons/capita/day. Since the residents will not leave for work they are expected to have higher water usage of about 55-60 gallons/capita/day. This value was increased to 75 gallons/capita/day to be conservative, resulting in total demand of 150 gallons/day, which equates to 0.17 acre-feet/year.

Customer Restroom

A commercial restroom will be provided for customers. Derrel's Mini Storage reviewed historical visitation data for three similarly sized mini-storage sites, and found that, on average, 96 customers visited each day. Based on observations from the on-site residents, less than 10% of customers use the restroom. Therefore, if it assumed that ten customers use the restroom each day it would result in 10 visits/day x (1.6 gallons/toilet flush + 1 gallon/hand wash) x 365 days/yr = 9,490 gallons/year = 0.03 acre-feet/year. Bottled drinking water will be available to the customers in the main office.

The volume of liquid waste generated and sent to the local septic system will be the indoor water usage described above. This equates to 0.17 + 0.03 = 0.2 acre-feet, which is equivalent to 179 gallons/day.

Landscaping

Landscaping is expected to cover 67,000 square feet (sf), although 12,000 sf will be synthetic turf in lieu of grass, resulting in 55,000 sf of irrigated landscaping. Low water use / drought tolerant plants and mulch will be used for all landscaped areas. All landscaping will also comply with the Madera County Drought Tolerant Landscape Ordinance (MCC Chapter 13.56).

Total landscape demands were based on the following formula:

$ET_c = Kc \times Et_o$

where

ET_c = crop evapotranspiration
K_c = crop coefficient
ET_o = reference crop evapotranspiration

Reference crop ET (ET_o) data was downloaded from the California Irrigation Management Information System (CIMIS) for Station 80, Fresno State. This is the closest CIMIS station to the project site. The monthly average ET_o at this station, based on historical data collected since 1988, is 57.4 inches or 4.8 feet.

For the drought tolerant landscaping, a crop coefficient of 0.3 was used based on Smeal (2009)[1], who stated 'a*n overall* K_l *of 0.3 is suggested for estimating the water requirements of a mixed species xeriscape*', where K_l is the coefficient for drought-tolerant landscape plants.

This results in irrigation demands of: (55,000 sf x 4.8 feet x 0.3) / 75% irrigation efficiency = 105,600 cubic feet = 2.42 acre-feet. This analysis conservatively ignored contributions from direct precipitation onto landscaped areas.

Water Feature

The project site may include a decorative water feature (fountain). The area of the water feature will be 1,000 square feet. The water will be recirculated so the only water demands will come from evaporative losses. Based on the local evaporation rate of 57.4 in/year (4.8 feet), total evaporative losses are estimated to be 4,800 cubic feet or 0.11 acre-feet. This estimate ignores contributions from precipitation directly onto the fountain water.

Total Water Demands

Total water demands are summarized in the table below:

Table 1 – Total Water Demands

Description	Volume (acre-feet)
On-site Residence	0.17
Customer Restroom	0.03
Landscaping	2.42
Water Feature	0.11
Total	2.73

This results in overall usage of 2.73 acre-feet/20.1 acres = 0.14 acre-feet/acre. This equates to 2,437 gallons/day.

Fire Suppression Supplies and Demands

Currently there is no existing fire line infrastructure that can provide fire suppression water, and none of the potential water supply options could meet required fire flows. As a result, the project site will include a storage tank and fire hydrant to meet fire suppression demands.

1 D. Smeal, et al. The Irrigation Association, *Crop Coefficients for Drip-irrigated Xeriscape and Urban Vegetable Gardens*, December 2009.

A County standard Dry Barrel Hydrant will be installed within 400 feet of the furthest portion of the proposed buildings measured by the way of drivable access. The hydrant location will be approved by the Madera County Fire Marshall prior to installation of any portion of the system (CFC, Section 507.5.1)

A water tank will be provided with adequate storage to meet the fire-water flowrate and duration requirements stipulated by the Madera County Fire Marshall.

Water Supply Options

The water supply options include groundwater, surface water, and connections to other local water systems.

Groundwater

Groundwater can be supplied from an on-site well. An existing agricultural well is on site, however, it was not designed for domestic use and a new domestic water supply well would need to be installed. Groundwater is used in all surrounding areas and the aquifer would be able to supply the projected demands.

Surface Water

The project site is located within Madera Irrigation District (MID) and has the ability to divert and use surface water. However, the surface water would need treatment before use as a potable supply. Furthermore, the water is typically only available during the irrigation season, creating a large gap in the winter when no water is provided. Lastly, the project site is on MID 'Subordinate Lands', which are a special land classification. Subordinate Lands were added after the District was formed and have secondary priority to water supplies. These lands are typically only offered water during wet years. Consequently, due to the need to treat MID surface water, and its poor reliability, this source is not considered a reliable or practical water supply. The parcel does not have any other surface water rights, surface water contracts or riparian water claims.

Root Creek Water District

Root Creek Water District (RCWD) is located directly south of the project site. RCWD serves municipal water to the Riverstone development, and large areas of the district are cropped and served water from private groundwater pumping or limited District surface water deliveries. The closest potable water supply line from the RCWD system is almost ½ mile from the project site. Using this water would therefore require construction of a ½ mile pipeline and annexing the project site into the District. The efforts and costs to connect to RCWD could not be justified for the small quantity of projected water demands.

MD10A – Madera Ranchos Water System

Madera County operates the MD-10A – Madera Ranchos water system. The eastern end of MD-10A is 1.8 miles from the project site (see **Attachment 2**). The project site is outside of the boundary of the water system and would require annexation. Extending a water line to the project site is not considered economical for the small anticipated water demand.

Future Water System Connection

Future water system consolidation may be feasible. In an email from December 12, 2023, Jamie Bax with Madera County stated '*We are in favor of consolidating water systems, but at this time we believe the consolidation efforts are years away.*" To prepare for future consolidation, the project site will be plumbed with a stub at the southern end of the property near Avenue 12 to ultimately connect to a water agency line, which could be either Root Creek Water District or MD-10A. This would be feasible if they expand their boundaries, annex the project site, or extend their current infrastructure so it is closer to the project site.

Description of Selected Water Source

The selected water source will be groundwater through a proposed domestic water supply well. The well will be constructed to public water system standards since it could be utilized for potable uses. Water treatment will be provided on the well, if needed. The well will meet all water demands, including filling the fire protection storage tank.

Water Source Reliability

The project site is located in the Madera Groundwater Subbasin, a large alluvial groundwater basin. The groundwater basin covers 614 square miles and provides water to tens of thousands of people and agricultural water to over 200,000 acres.

The project site is located within the Madera Irrigation District Groundwater Sustainability Agency (MIDGSA). Their groundwater policies are documented in the Madera Joint Groundwater Sustainability Plan which was last updated in December 2023, and has been approved by the California Department of Water Resources. MIDGSA has not established any groundwater pumping limitations or groundwater allocations within their boundaries. They plan to achieve groundwater sustainability through continued importation of surface water and development of projects, such as recharge basins. As a result, the project site does not have groundwater pumping limits. The estimated water use of 0.14 acre-feet/acre is considered low, and is less than the 0.5 acre-feet/acre groundwater allocation established by the neighboring Madera County Groundwater Sustainability Agency.

Public Water System

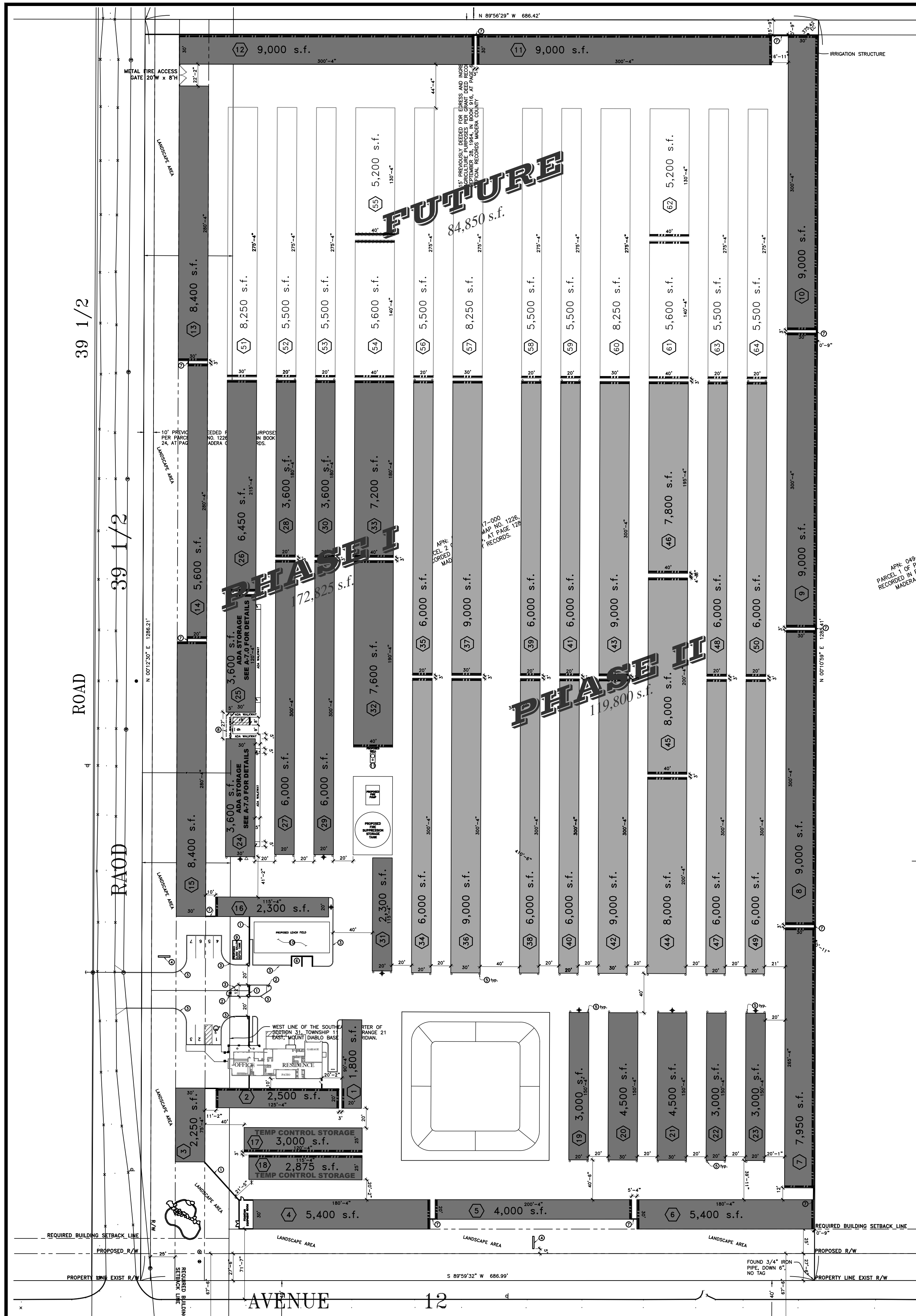
The proposed project will need to comply with Madera County Code Title 13 as it relates to on-site domestic water. Madera County Code Title 13 includes the same language as California Health & Safety Code Section 116275 (h and e) and states a "*Public Water System means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year.*" Designation as a Public Water System will require a permit to operate and regular reporting to the State.

The water system will have only one connection and would need to regularly service at least 25 individuals daily for at least 60 days to be considered a Public Water System. The only water facilities available to visitors will be a ½ bath with a toilet and sink in the customer restroom. No drinking water is available to visitors other than a bottled water dispenser in the office.

Due to proposed phasing of the project, and the time required for the project site to reach a sufficient customer base, Madera County has stated it will not initially be considered a Public Water System. Specifically, in an email on October 20, 2023, Dexter Marr with Madera County wrote: "*…once the facility meets the definition of a public water system, then permitting to become a public water system will be required. Once the business feels it meets the definition then they should contact our Division*." Hence, permitting as a public water system will not be needed for initial project approvals.

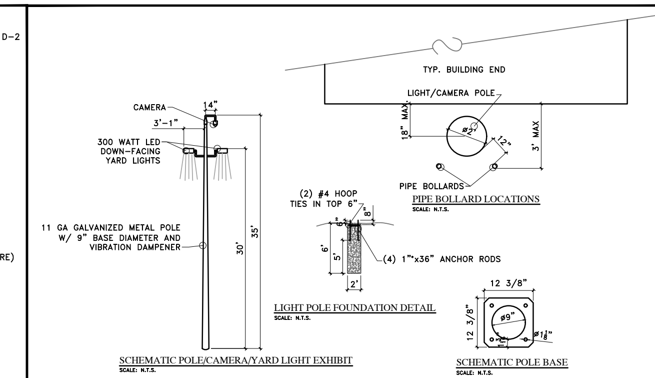
Derrel's Mini Storage reviewed historical visitation data for three similarly sized mini-storage sites and found that, on average, 96 customers visited each day. Based on observations from the on-site residents, less than 10% of customers use the restroom. Hence, only about 10 people per day would use the water facilities. Therefore, the water system would serve less than 25 individuals daily and would not be considered a Public Water System per County or State Standards. The Derrel's Mini Storage on-site manager will monitor visitation and restroom usage and contact the County if they pass the threshold for a Public Water System.

ATTACHMENT 1



LEGEND

- ACCESSIBLE PARKING SPACE w/SIGN – SEE DETAIL ON SHEET D-2
- (X) BUILDING NUMBER
- 2A IOBC FIRE EXSTINGUISHER IN CABINET AS REQUIRED
- 30 WATT LED LIGHT AT +7'-6"
- STANDARD DECORATIVE LIGHT FIXTURE
- (1) 6'-0" HIGH CONCRETE BLOCK FENCE
- (2) ENTRY/EXIT KEPAD
- (3) 6" HIGH CONCRETE CURB
- (4) PROPOSED MONUMENT SIGN – (NOT PART OF THIS REVIEW)
- (5) 3" DIA. STEEL GUARD POST (TYP. @ BLDG. CORNERS)
- (6) REFUSE CONTAINER ENCLOSURE
- (7) BUILDING HEIGHT WALL BTWN. BUILDINGS ALONG PERIMETER (TYPICAL)
- (8) 36"W. CONCRETE WHEEL STOPS (TYP. BLDG BREAKS 4' OR MORE)
- (9) PROPOSED LOCATION OF SEPTIC TANK.
- (10) PROPOSED SEPTIC LEACH AREA
- (11) PROPOSED WELL LOCATION
- INDICATES TWO-HOUR FIRE WALL
- INDICATES ONE-HOUR FIRE WALL
- 5" CONCRETE DRIVES o/6" COMPACT NATIVE SOIL
- 4" CONCRETE DRIVES o/6" COMPACT NATIVE SOIL
- PROPOSED PHASE I BUILDING CONSTRUCTION
- PROPOSED PHASE II BUILDING CONSTRUCTION (FOUNDATION ONLY)
- FUTURE BUILDING CONSTRUCTION
- PROPOSED CARPORTS (SEPARATE SUBMITTAL) SEE SHEET A-1.2
- PROPOSED ENCLOSED CARPORTS (SEPARATE SUBMITTAL) SEE SHEET A-1.2



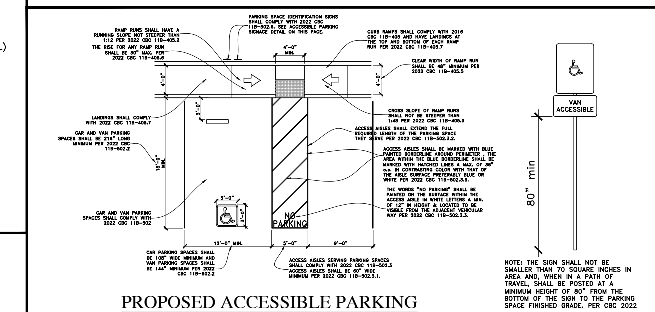
SCHEMATIC POLE/CAMERA/YARD LIGHT EXHIBIT
SCALE: N.T.S.

LIGHT POLE FOUNDATION DETAIL
SCALE: N.T.S.

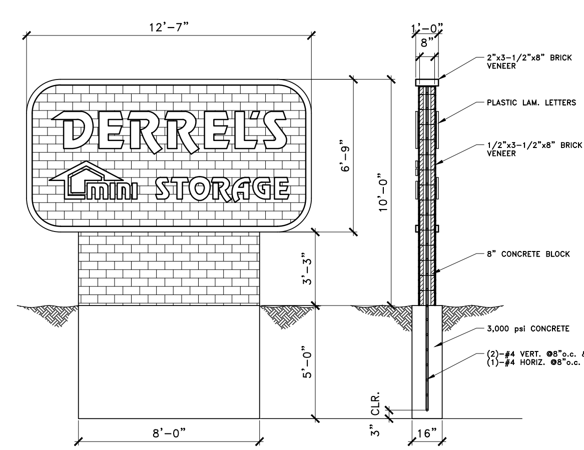
PIPE BOLLARD LOCATIONS

SCHEMATIC POLE BASE
SCALE: N.T.S.

NOTES:
1. LIGHTS ARE TO BE INSTALLED WITH LIGHT FOCUSING LOUVERS. LIGHTS ARE NOT TO EXCEED 35' IN HEIGHT AND NOT TO EXCEED 300 WATTS.
2. WHERE LIGHTING IS PROVIDED TO ILLUMINATE PARKING, BUILDING ENTRANCES, AISLES, STORAGE, CARETAKER RESIDENCE, OFFICE, AND/OR TRUCK/TRAILER RENTAL AREAS, IT SHALL BE DOWN-DIRECTED, HOODED/SHIELDED AND SO ARRANGED AND CONTROLLED SO AS NOT TO CAUSE A NUISANCE EITHER TO STREET TRAFFIC OR TO THE LIVING ENVIRONMENT,
3. THE AMOUNT OF LIGHT REQUIRED FOR PUBLIC PARKING AND TRUCK/TRAILER RENTAL AREAS SHALL BE PROVIDED ACCORDING TO THE STANDARDS OF THE DEPT. OF PUBLIC WORKS.
4. LIGHTING TO BE DIRECTED AWAY FROM RESIDENTIAL AREAS.
5. LIGHT POLES AT THE PERIMETER TO ONLY HAVE LIGHTS POINTING TOWARD THE INTERIOR OF THE PROJECT.

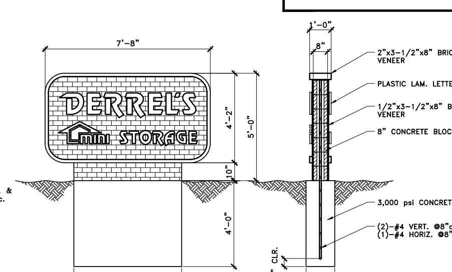


PROPOSED ACCESSIBLE PARKING



MONUMENT SIGN
SCALE: N.T.S.

AVENUE 12



MONUMENT SIGN
SCALE: N.T.S.

ROAD 39-1/2

ALLOWABLE SQUARE FOOTAGE

STORAGE:	9,000 S.F.
RV STORAGE:	13,500 S.F.
OFFICE:	5,000 S.F.
RESIDENCE:	UNLIMITED S.F.

OCCUPANCY

STORAGE:	S-1
RV STORAGE:	S-2
OFFICE:	B-2
RESIDENCE:	R-3

TYPE OF CONSTRUCTION

STORAGE:	V-B
RV STORAGE:	V-B
OFFICE:	V-B
RESIDENCE:	V-B

SITE DATA

PROPERTY OWNER
BAKER MINI L.P.
3239 W. ASHLAN AVE.
FRESNO, CA 93722
(559) 224-9900

PROPERTY ADDRESS
NE CORNER AVE 12 & RD 39-1/2
MADERA, CA 93636
(NOT IN CITY, MADERA COUNTY IS REGULATORY AGENCY)

A.P.N.
049-022-017

LAND ACREAGE
GROSS: ±20.12 AC.
NET: ±XX AC.

BUILDING SQUARE FOOTAGE
CONSTRUCTION PHASES

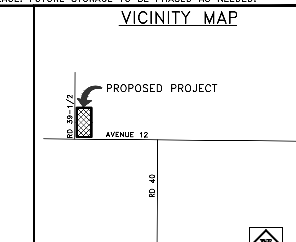
PROPOSED PH-I:	172,825 S.F.
PROPOSED PH-II:	119,800 S.F.
FUTURE:	84,850 S.F.
STORAGE:	377,475 S.F.
OFFICE:	804 S.F.
RESIDENCE:	1,327 S.F.
GARAGE:	391 S.F.
TOTAL:	379,997 S.F.

RV SQUARE FOOTAGE
CARPORTS/ENCLOSED: 60,620 S.F.

NOTE: SEE SHEET A-1.2 FOR RV STRUCTURES

NOTE: FUTURE STORAGE AND CARPORT/ ENCLOSED RV STORAGE OVERLAP SAME LAND AREA, FUTURE STORAGE BUILDINGS WILL BE CONSTRUCTED AS NEEDED AFTER REMOVAL OF OVERLAPPING RV STORAGE. FUTURE STORAGE TO BE PHASED AS NEEDED.

VICINITY MAP



SITE PLAN

REVISIONS:
February 21, 2023
June 14, 2023
January 10, 2024

DERREL'S mini STORAGE
3265 W ASHLAN AVE FRESNO CA 93722 (559) 224-9900

APPROVALS

C:\My Documents\CADfiles\Projects\86_Madera\A1.dwg
Date: February 3, 2023
Scale: 1" = 60'-0"
Drawn By: Bouma
Project: Site Plan Madera Co Ave 12 & 39-1/2
Sheet: A-1.1

LEGEND

- ACCESSIBLE PARKING SPACE w/SIGN – SEE DETAIL ON SHEET D-2
- BUILDING NUMBER
- 2A IOBC FIRE EXSTINGUISHER IN CABINET AS REQUIRED
- 30 WATT LED LIGHT AT +7'-6"
- STANDARD DECORATIVE LIGHT FIXTURE
- 1 6'-0" HIGH CONCRETE BLOCK FENCE
- 2 ENTRY/EXIT KEPAD
- 3 6" HIGH CONCRETE CURB
- 4 PROPOSED MONUMENT SIGN – (NOT PART OF THIS REVIEW)
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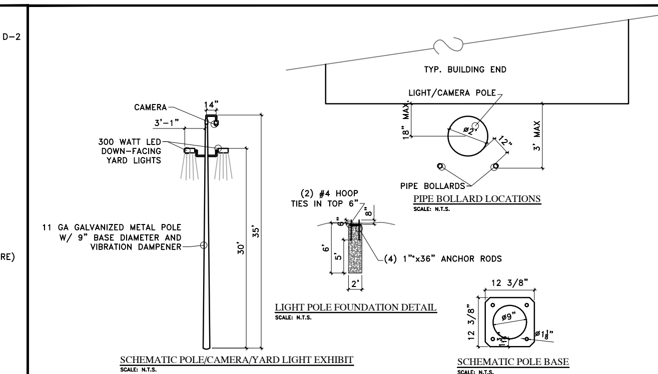
- FUTURE BUILDING CONSTRUCTION
- PROPOSED CARPORTS (SEPARATE SUBMITTAL) SEE SHEET A-1.2
- PROPOSED ENCLOSED CARPORTS (SEPARATE SUBMITTAL) SEE SHEET A-1.2



LIGHT POLE FOUNDATION DETAIL
SCALE: N.T.S.

SCHEMATIC POLE/CAMERA/YARD LIGHT EXHIBIT
SCALE: N.T.S.

SCHEMATIC POLE BASE
SCALE: N.T.S.

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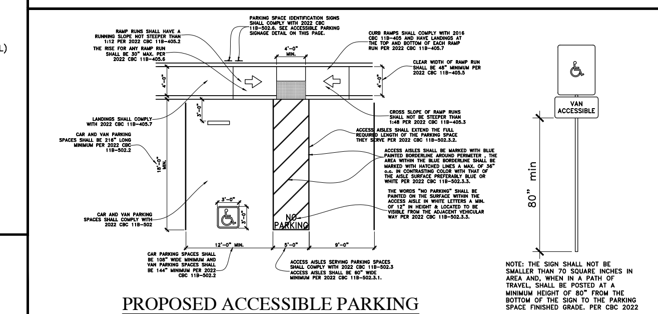

PROPOSED ACCESSIBLE PARKING

ALLOWABLE SQUARE FOOTAGE

STORAGE:	9,000 S.F.
RV STORAGE:	13,500 S.F.
OFFICE:	5,000 S.F.
RESIDENCE:	UNLIMITED S.F.

OCCUPANCY

STORAGE:	S-1
RV STORAGE:	S-2
OFFICE:	B-2
RESIDENCE:	R-3

TYPE OF CONSTRUCTION

STORAGE:	V-B
RV STORAGE:	V-B
OFFICE:	V-B
RESIDENCE:	V-B

SITE DATA

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BAKER MINI L.P.
3239 W. ASHLAN AVE.
FRESNO, CA 93722
(559) 224-9900

PROPERTY ADDRESS
NE CORNER AVE 12 & RD 39-1/2
MADERA, CA 93636
(NOT IN CITY, MADERA COUNTY IS REGULATORY AGENCY)

A.P.N.
049-022-017

LAND ACREAGE
GROSS: ±20.12 AC.
NET: ±XX AC.

BUILDING SQUARE FOOTAGE
CONSTRUCTION PHASES

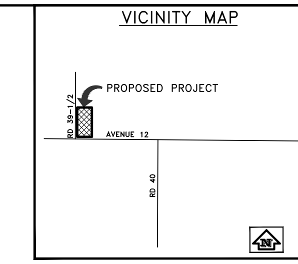
PROPOSED PH-I:	172,825 S.F.
PROPOSED PH-II:	119,800 S.F.
FUTURE:	84,850 S.F.
STORAGE:	377,475 S.F.
OFFICE:	804 S.F.
RESIDENCE:	1,327 S.F.
GARAGE:	391 S.F.
TOTAL:	379,997 S.F.

RV SQUARE FOOTAGE
CARPORTS/ENCLOSED: 60,620 S.F.

NOTE: SEE SHEET A-1.1 FOR PHASE III STRUCTURES.

NOTE: FUTURE STORAGE AND CARPORT/ ENCLOSED RV STORAGE OVERLAP SAME LAND AREA, FUTURE STORAGE BUILDINGS WILL BE CONSTRUCTED AS NEEDED AFTER REMOVAL OF OVERLAPPING RV STORAGE. FUTURE STORAGE TO BE PHASED AS NEEDED.

VICINITY MAP



SITE PLAN

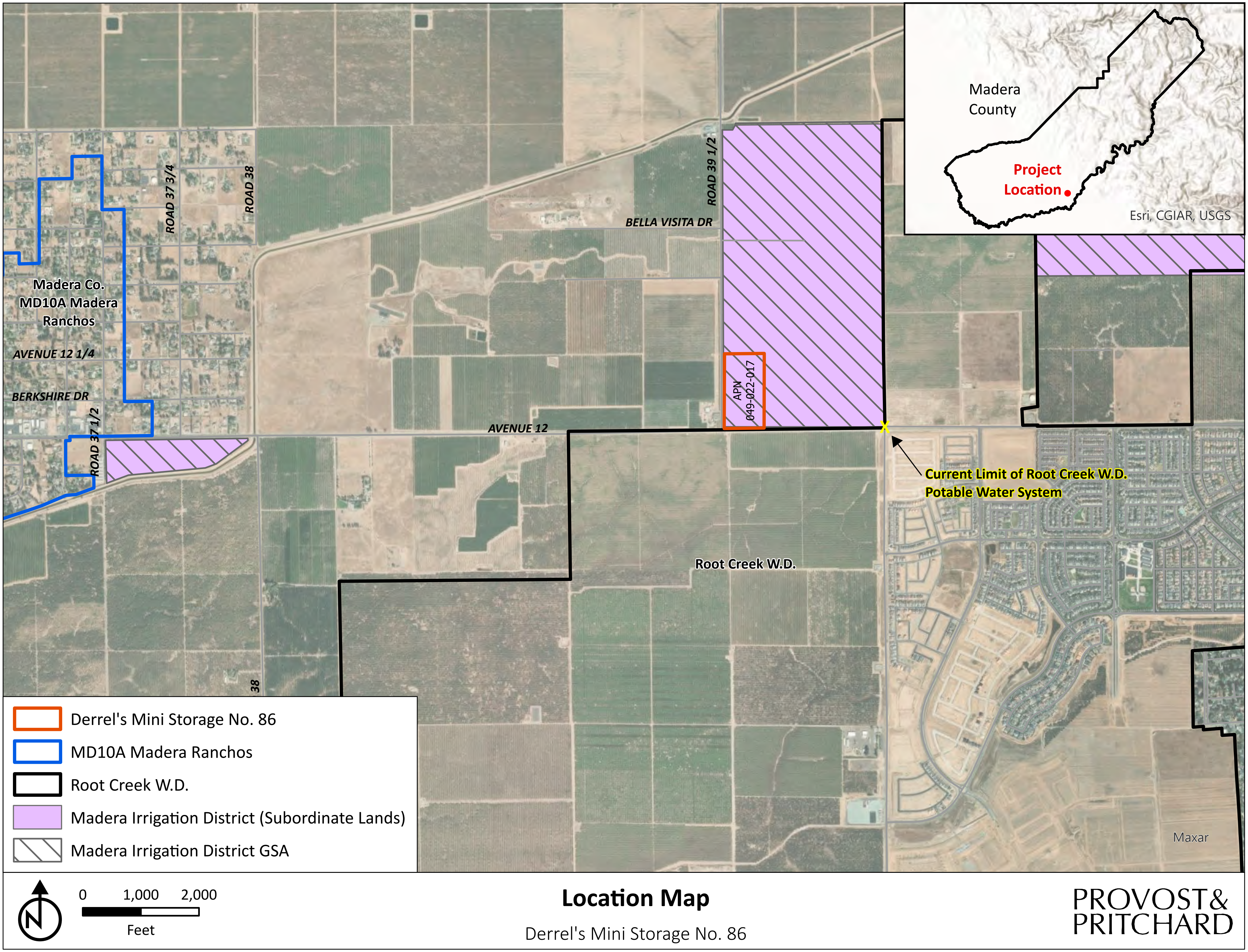
REVISIONS:
February 21, 2023
April 27, 2023
June 14, 2023
January 10, 2024

DERREL'S mini STORAGE
3265 W ASHLAN AVE FRESNO CA 93722 (559) 224-9900

APPROVALS

C:\My Documents\CADfiles\Projects\86_Madera\A1.dwg

Date:	February 3, 2023
Scale:	1" = 60'-0"
Drawn By:	Bouma
Project:	Site Plan Madera Co Ave 12 & 39-1/2
Sheet:	A-1.2

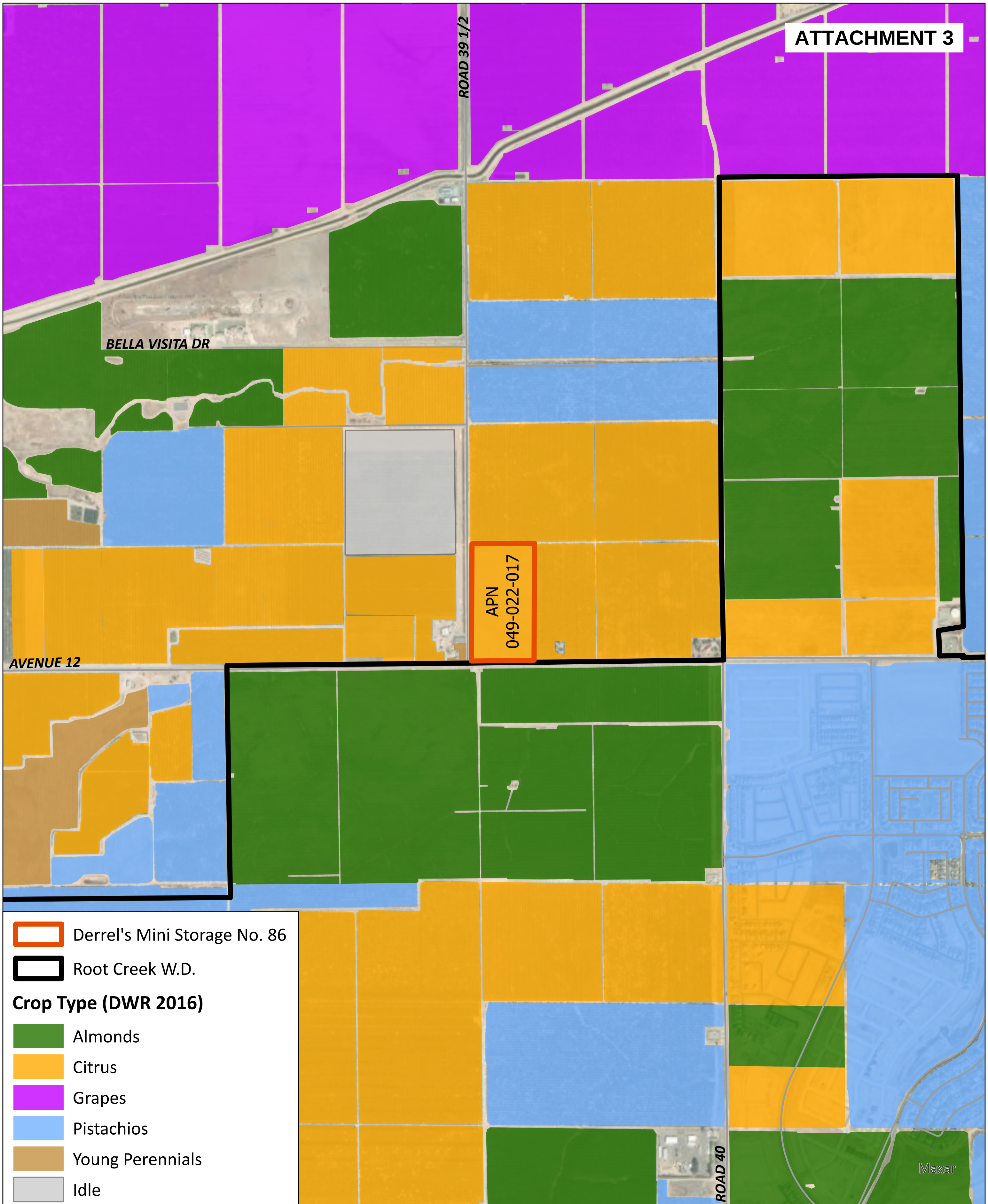


Location Map

Derrel's Mini Storage No. 86

PROVOST& PRITCHARD

5/15/2024 \\ppeng.com\pzdata\clients\Derrels Mini Storage-4082\408224001-WSA\400 GIS\Map\DerrelsMiniStorageNo86\DerrelsMiniStorageNo86.aprx



N
0 500 1,000
Feet

Crop Map

Derrel's Mini Storage No. 86

PROVOST&
PRITCHARD

5/7/2024 G:\Derrels Mini Storage-4082\408224001-WSA\400 GIS\Map\DerrelsMiniStorageNo86\DerrelsMiniStorageNo86.aprx wjv acoustics

March 27, 2024

Mr. Bill Robinson, Principal
SOL DEVELOPMENT ASSOCIATES, LLC
906 N Street, Ste 100
Fresno, California 93721

RE: DERREL'S MINI-STORAGE #86 NOISE LEVELS, MADERA COUNTY

Dear Mr. Robinson:

As requested, WJV Acoustics, Inc. (WJVA) is providing this letter summarizing findings in regards to potential noise levels associated with the operation of the proposed Derrell's Min-Storage location, to be located at the intersection of Road 39 ½ and Avenue 12, in an incorporated portion of Madera County. This letter of findings discusses traffic noise exposure at the proposed on-site residential unit as well as a discussion of operational noise levels associated with the project.

APPLICABLE NOISE STANDARDS-

The Madera County Noise Element of the General Plan sets compatibility standards for transportation-related noise sources and stationery (non-transportation) noise sources. Public roadways are considered transportation noise sources. Noise sources *not* related to traffic on public roadways, railroads or aircraft in flight are considered stationary noise sources. Such sources generally include commercial uses and stationary equipment.

For transportation noise sources, the Noise Element establishes land use compatibility criteria in terms of the Day-Night Average Level (L_{dn}) or Community Noise Equivalent Level (CNEL). The CNEL is applicable only to aircraft noise exposure, as required by the State of California. The County's exterior noise exposure criterion is 60 dB L_{dn} within outdoor activity areas of residential land uses unless the noise-sensitive use of concern is to be located near State Highway 99 or the Union Pacific or BNSF Railroad mainlines where an exterior exposure of up to 65 dB L_{dn} is allowed. Outdoor activity areas generally include backyards of single-family residences and individual patios or decks of multi-family developments. The intent of the exterior noise level requirement is to provide an acceptable noise environment for outdoor activities and recreation.

The Noise Element also requires that interior noise levels attributable to exterior transportation noise sources not exceed 45 dB L_{dn}. The intent of the interior noise level standard is to provide an acceptable noise environment for indoor communication and sleep.

For stationary noise sources, the Noise Element establishes noise compatibility criteria in terms of the hourly equivalent sound level (L_{eq}) and maximum sound level (L_{max}). The standards are more restrictive during the nighttime hours, defined as 10:00 p.m. to 7:00 a.m. The Noise Element standards for stationary noise sources are summarized in Table I. The standards are to be adjusted by -5 dB if the noise source of concern consists primarily of speech or music.

TABLE I

MADERA COUNTY NOISE ELEMENT STANDARDS
STATIONARY NOISE SOURCES

	Daytime (7:00 a.m.-10:00 p.m.)	Nighttime (10:00 p.m.-7:00 a.m.)
Hourly Equivalent Sound Level (L_{eq}), dBA	50	45
Maximum Sound Level (L_{max}), dBA	70	65

[1]As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers on the property line.

Source: Madera County Noise Element

RESIDENTIAL NOISE EXPOSURE-

The project would include a residential space for on-site employees. For Madera County, the exterior noise level standard for residential land uses is 60 dB L_{dn} and interior noise standard is 45 dB L_{dn}. The residence would be located approximately 300 feet north of Avenue 12 and approximately 150 east of Road 39 ½. In order to quantify noise exposure levels at the proposed residence location, WJVA utilized the FHWA Traffic Noise Model and traffic data provided by the project traffic engineer, Peters Engineering Group.

Using the FHWA model and the traffic data provided by the traffic engineer, the combined (Avenue 12 and Road 39 ½) traffic noise exposure at the proposed residential land use was calculated to be approximately 53 dB L_{dn}. Such noise levels do not exceed the Madera County exterior noise level standard of 60 dB L_{dn}. Additionally, this described noise level does not take into account any acoustic shielding provided by the proposed perimeter wall or the storage buildings, and should therefore be considered a worst-case assessment of traffic noise exposure at the proposed on-site residential land use.

In regards to the County's interior noise level standard of 45 dB L_{dn}, the worst-case noise exposure at the proposed residential use would be approximately 53 dB L_{dn}. This means that the proposed residential construction must be capable of providing a minimum outdoor-to-indoor noise level reduction (NLR) of approximately 8 dB (53-45=8).

A specific analysis of interior noise levels was not performed. However, it may be assumed that residential construction methods complying with current building code requirements will reduce exterior noise levels by approximately 25 dB if windows and doors are closed. This will be sufficient for compliance with the County's 45 dB L_{dn} interior standard.

OPERATIONAL NOISE LEVELS-
The project would not produce any operational noise other than on-site vehicle movements and the occasional opening/closing of individual storage units. Such noise levels would be similar to those produced in typical commercial/retail parking lots.

Noise due to traffic in parking lots is typically limited by low speeds and is not usually considered to be significant. Human activity in parking lots that can produce noise includes voices, stereo systems and the opening and closing of car doors and trunk lids. Such activities can occur at any time the parking lot is open. The noise levels associated with these activities cannot be precisely defined due to variables such as the number of parking movements, time of day and other factors. It is typical for a passing car in a parking lot to produce a maximum noise level of 60 to 65 dBA at a distance of 50 feet, which is comparable to the level of a raised voice.

The closest off-site sensitive receptor (residential land use) to the project site is located approximately 300 feet to the east, along the north side of Avenue 12. At this distance, and taking into consideration the noise attenuation provided by the proposed perimeter wall, noise associated with on-site vehicle and human activities would not be expected to exceed 45 dB. Such levels would not exceed any Madera County noise standards.

SUMMARY OF FINDINGS-

As described above, exterior and interior traffic noise exposure levels at the proposed on-site residential land use would not exceed any Madera County noise standards. Additionally, noise associated with project operations would not exceed any Madera County noise standards at any off-site sensitive receptor locations.

Please contact me at 559-627-4923 or walter@wjvacoustics.com if there are questions or additional information is required.

Sincerely,

WJV ACOUSTICS, INC.

Walter J. Van Groningen
President

APPENDIX E

TRAFFIC STUDY

Proposed Derrel's Mini Storage

Northeast of the Intersection of Avenue 12 and Road 39½
Madera County, California

Prepared For:

Derrel's Mini Storage
3265 West Ashlan Avenue
Fresno, California 93722

Date:

March 13, 2024
Revised April 15, 2024

Job No.:

23-052.01

Approved by
Gordon Lum, CA TE#1542
on 5/14/24

PETERS ENGINEERING GROUP
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Ms. Karen Kendall
Derrel's Mini Storage
3265 West Ashlan Avenue
Fresno, California 93722

March 13, 2024
Revised April 15, 2024

Subject: Traffic Study
Proposed Derrel's Mini Storage
Northeast of the Intersection of Avenue 12 and Road 39½
Madera County, California

Dear Ms. Kendall:

1.0 INTRODUCTION

This report presents the results of a traffic study for the subject project in Madera County, California. This analysis focuses on the anticipated effect of vehicle traffic resulting from the project.

2.0 PROJECT DESCRIPTION

The proposed Derrel's Mini Storage (hereinafter referred to as the Project) is located on approximately 20.12 acres northeast of the intersection of Avenue 12 and Road 39½ in Madera County, California. The mini storage buildings are proposed in phases as follows:

Phase 1: 172,825 square feet

Phase 2: 119,800 square feet

Future Phase 3: 84,850 square feet

When Phases 1 and 2 are complete, the future Phase 3 area will initially be developed with 126 storage spaces for recreational vehicles (RV storage).

Site access is proposed via a main driveway connecting to Road 39½ approximately 300 feet north of Avenue 12.

A vicinity map is presented in the attached Figure 1, Site Vicinity Map, following the text of this report. A site plan is presented in Figure 2, Site Plan.

3.0 STUDY AREA AND TIME PERIOD

This report includes analysis of the intersection of Avenue 12 and Road 39½ and a trip trace (estimate of the number of Project trips) at the intersection of Avenue 12 and State Route 41. The County requested analysis of the intersection of Avenue 12 and Road 40, however, as of the date the traffic counts were performed, Road 40 had been closed to all traffic with K rail for several months. Therefore, it was impossible to perform traffic counts of the intersection of Avenue 12 and Road 40.

The study time periods for operational analyses include the weekday a.m. and p.m. peak hours determined between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. Based on comments received from County staff, the peak hours were analyzed for the following conditions:

- Existing Conditions;
- Existing-Plus-Project Phases 1 through 3 Conditions; and
- Opening-Day With-Project Phases 1 through 3 Conditions.

4.0 LANE CONFIGURATIONS AND INTERSECTION CONTROL

The existing lane configurations and intersection control at the intersection of Avenue 12 and Road 39½ are presented in Figure 3, Existing Lane Configurations and Intersection Control.

5.0 EXISTING TRAFFIC VOLUMES

Existing traffic volumes were determined by performing manual turning movement counts at the intersection of Avenue 12 and Road 39½ between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. on a weekday. The existing peak-hour turning movement volumes are presented in Figure 4, Existing Peak-Hour Traffic Volumes. The traffic count data sheets are presented in Appendix A.

6.0 PROJECT TRIPS

6.1 Project Trip Generation

Data provided in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition*, are typically used to estimate the number of trips anticipated to be generated by proposed projects. The trip generation calculations utilize ITE Land Use 151, Mini-Warehouse. ITE does not provide data related to RV storage units. Peters Engineering Group performed local trip generation studies specifically for several existing Derrel's Mini Storage facilities to determine a trip generation rate for RV storage and presented the results in a report dated March 12, 2012. Table 1 on the following page presents the trip generation estimates for Phases 1 and 2 of the Project with RV storage. Table 2 presents the trip generation estimates for the ultimate development of all three phases of the project.

6.2 Project Trip Distribution and Assignment

The Project trips were distributed to the adjacent road network using engineering judgment considering the distribution of existing traffic volumes, the locations and types of streets in the study area, and complementary land uses in the region. The anticipated percentage distribution of Project trips is presented in Figure 5, Project Trip Distribution Percentages. The peak-hour Project trips identified in Table 3 are presented in Figure 6, Project Peak-Hour Traffic Volumes – Phases 1 Through 3 Developed.

Table 1
Project Trip Generation – Phases 1 and 2 Developed

Phase	Units	A.M. Peak Hour Traffic Volumes			P.M. Peak Hour Traffic Volumes			Weekday Traffic Volume	
		Rate Split	Enter	Exit	Rate Split	Enter	Exit	Rate	Total
1	172,825 sq. ft.	0.09 59/41	9	7	0.15 47/53	12	14	1.45	251
2	119,800 sq. ft.	0.09 59/41	6	4	0.15 47/53	9	9	1.45	174
RV storage	126 spaces	0.01 50/50	1	1	0.01 50/50	1	1	0.10	13
TOTALS:			**16**	**12**		**22**	**24**		**438**

Reference: *Trip Generation Manual, 11th Edition, Institute of Transportation Engineers, September 2021* and *Trip Generation Study, RV Storage Areas Within Mini-Storage Complexes, Peters Engineering Group, March 12, 2012.*
Rates are reported in trips per 1,000 square feet of net rentable area for mini storage buildings and trips per parking space for RV storage.
Splits are reported as Entering/Exiting as a percentage of the total

Table 2
Project Trip Generation – Phases 1 through 3 Developed

Phase	Units	A.M. Peak Hour Traffic Volumes			P.M. Peak Hour Traffic Volumes			Weekday Traffic Volume	
		Rate Split	Enter	Exit	Rate Split	Enter	Exit	Rate	Total
1	172,825 sq. ft.	0.09 59/41	9	7	0.15 47/53	12	14	1.45	251
2	119,800 sq. ft.	0.09 59/41	6	4	0.15 47/53	9	9	1.45	174
3	84,850 sq. ft.	0.09 59/41	5	3	0.15 47/53	6	7	1.45	123
1-3	377,475 sq. ft.	0.09 59/41	**20**	**14**	0.15 47/53	**27**	**30**	1.45	**548**

Reference: *Trip Generation Manual, 11th Edition, Institute of Transportation Engineers, September 2021*
Rates are reported in trips per 1,000 square feet of net rentable area.
Splits are reported as Entering/Exiting as a percentage of the total

6.3 Trip Trace

Caltrans requested that the volume of Project trips (trip trace) expected at the intersection of Avenue 12 and State Route (SR) 41 be presented in the traffic study. The Project trips were assigned to the intersection based on the criteria described above and the results are presented in Figure 6, Project Peak-Hour Traffic Volumes – Phases 1 Through 3 Developed.

7.0 EXISTING-PLUS-PROJECT PHASES 1 THROUGH 3 TRAFFIC VOLUMES

Existing-plus-Project traffic volumes (considering the worst-case scenario with development of Phases 1 through 3) are presented in Figure 7, Existing-Plus-Project Peak-Hour Traffic Volumes, and were determined by adding the values in Figures 4 and 6.

8.0 OPENING-DAY TRAFFIC VOLUMES

To account for continued development in region, the existing traffic volumes were increased by one percent per year to the year 2025. Opening-day traffic volumes with the Project are presented in Figure 8, Opening-Day With-Project Peak-Hour Traffic Volumes.

9.0 SIGNIFICANCE CRITERIA

9.1 Vehicle Miles Traveled (VMT)

As of the date of this report, it is our understanding that the County of Madera has not adopted local significance criteria for VMT analyses. In the absence of local policies, the current state of the practice is to utilize information presented in The State of California Governor's Office of Planning and Research *Technical Advisory on Evaluating Transportation Impacts in CEQA* dated December 2018 (Technical Advisory). The Technical Advisory states, "*Of land use projects, residential, office, and retail projects tend to have the greatest influence on VMT.*"

For small projects, the Technical Advisory states: "*Many local agencies have developed screening thresholds to indicate when detailed analysis is needed. Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact.*"

Regarding local-serving retail uses, the Technical Advisory states: "*By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact. Regional-serving retail development, on the other hand, which can lead to substitution of longer trips for shorter ones, may tend to have a significant impact. Where such development decreases VMT, lead agencies should consider the impact to be less-than-significant.*"

9.2 Level of Service

9.2.1 General

The State of California does not recognize traffic congestion and delay as an environmental impact per the California Environmental Quality Act (CEQA). However, Policy 2.A.8 of the Madera County General Plan Policy Document requires that LOS D or better be maintained on County roadways.

The Transportation Research Board *Highway Capacity Manual*, *7th Edition*, (HCM) defines level of service (LOS) as, "a quantitative stratification of a performance measure or measures representing quality of service. The measures used to determine LOS for transportation system elements are called *service measures*. The HCM defines six levels of service, ranging from A to F, for each service measure or combination of service measures. LOS A represents the best operating conditions from the traveler's perspective and LOS F the worst." Automobile mode LOS characteristics for both unsignalized and signalized intersections are presented in Tables 3 and 4.

Table 3
Level of Service Characteristics for Unsignalized Intersections

Level of Service	Average Vehicle Delay (seconds)
A	0-10
B	>10-15
C	>15-25
D	>25-35
E	>35-50
F	>50

Table 4
Level of Service Characteristics for Signalized Intersections

Level of Service	Description	Average Vehicle Delay (seconds)
A	Volume-to-capacity ratio is no greater than 1.0. Progression is exceptionally favorable or the cycle length is very short.	$\leq$10
B	Volume-to-capacity ratio is no greater than 1.0. Progression is highly favorable or the cycle length is very short.	>10-20
C	Volume-to-capacity ratio is no greater than 1.0. Progression is favorable or cycle length is moderate. Individual cycle failures may appear.	>20-35
D	Volume-to-capacity ratio is high but no greater than 1.0. Progression is ineffective or cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	>35-55
E	Volume-to-capacity ratio is high but no greater than 1.0. Progression is unfavorable and cycle length is long. Individual cycle failures are frequent.	>55-80
F	Volume-to-capacity ratio is greater than 1.0. Progression is very poor and cycle length is long. Most cycles fail to clear the queue.	>80

Reference for Tables 3 and 4: *Highway Capacity Manual, 7th Edition,* Transportation Research Board, 2022

9.2.2 County of Madera Locations

Policy 2.A.8 of the Madera County General Plan Policy Document requires that LOS D or better be maintained on County roadways. For purposes of this study, a traffic issue will be recognized at County of Madera facilities if the Project will decrease the LOS below D at an intersection. A traffic issue will also be recognized if the Project will exacerbate the delay at an intersection already operating below the target LOS by increasing the average delay by 5.0 seconds or more, or by causing the LOS to drop from LOS E to LOS F.

10.0 IMPACT ANALYSES

Mini-warehouse facilities are typically located strategically near areas in need of such facilities. By adding mini-warehousing opportunities into the existing and developing residential fabric and thereby improving destination proximity, local-serving mini-warehousing development tends to shorten trips and reduce VMT. The office component of the mini-warehouse facility is ancillary to the use and does not generate additional office-type trips. There are typically two employees who live on site; therefore, office and employee trips are expected to be on the order of 10 or fewer trips per day (based on ITE trip generation rates for single-family homes). Thus, it is suggested that the lead agency may presume the Project creates a less-than-significant transportation impact.

11.0 INTERSECTION OPERATIONAL ANALYSES

The levels of service at the intersection of Avenue 12 and Road 39½ were determined using the computer program Synchro 11, which is based on the HCM procedures for calculating levels of service. The intersection analysis sheets are presented in Appendix B. The results of the intersection operational analyses are presented in Table 5. Levels of service and delays worse than the target LOS are indicated in bold type and are underlined.

Table 5
Intersection LOS Summary – Avenue 12 and Road 39½

Scenario	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Existing	One-way stop	**<u>35.5</u>**	**<u>E</u>**	19.7	C
Existing Plus Project	One-way stop	**<u>36.9</u>**	**<u>E</u>**	23.9	C
Opening Day	One-way stop	**<u>37.5</u>**	**<u>E</u>**	24.3	C

The results of the intersection operational analyses include an estimate of the 95th-percentile queue lengths at the study intersections. The calculated 95th-percentile queue lengths are presented in Table 6.

Table 6
Intersection Queuing Summary

Approach	Storage Capacity (feet)	95th-Percentile Queue Length (feet)					
		Existing		Existing Plus Project		Opening Day With Project	
		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Eastbound LT	*	0	0	3	3	3	3
Westbound TR	*	DNS	DNS	DNS	DNS	DNS	DNS
Southbound LR	*	13	3	23	15	23	15

L: Left-turn movement T: Through movement R: Right-turn movement
Combinations of letters indicated a shared lane allowing the movements shown.
DNS: Does not stop
* Storage capacity exceeds 1,000 feet.

12.0 DISCUSSION

12.1 Existing Conditions

The results of the intersection analyses indicate that the intersection of Avenue 12 and Road 39½ is currently operating at acceptable LOS during the p.m. peak hour but is operating at LOS E during the a.m. peak hour (specifically on the southbound approach). By inspection, peak-hour traffic signal volume warrants are not satisfied (minor street approach volumes are on the order of 20 trips or fewer per hour). Calculated 95th-percentile queues are not excessive.

12.2 Existing-Plus-Project Conditions

The existing-plus-Project conditions analyses represent conditions that would occur after construction of all three phases of the Project in the absence of other pending projects and regional growth. This scenario isolates the specific effects of the full Project. The intersection of Avenue 12 and Road 39½ will continue to operate at levels of service similar to the existing conditions. Delays on the southbound approach during the a.m. peak hour will be exacerbated by only 1.4 seconds per vehicle, which is not considered to trigger a new traffic issue. By inspection, peak-hour traffic signal volume warrants are not satisfied (minor street approach volumes are on the order of 52 trips or fewer per hour). Calculated 95th-percentile queues are not excessive.

12.3 Opening-Day With-Project Conditions

The opening-day with-Project-conditions analyses are intended to represent the conditions that would occur on opening day of the Project considering other development and regional growth. The opening-day with-Project-conditions analyses indicate that intersection of Avenue 12 and Road 39½ will continue to operate at levels of service similar to the existing conditions. Delays on the southbound approach during the a.m. peak hour will be exacerbated by only 2.0 seconds per vehicle, which is not considered to trigger a new traffic issue. By inspection, peak-hour traffic signal volume warrants are not satisfied (minor street approach volumes are on the order of 52 trips or fewer per hour). Calculated 95th-percentile queues are not excessive.

13.0 CONCLUSIONS AND RECOMMENDATIONS

Generally-accepted traffic engineering principles and methods were employed to estimate the number of trips expected to be generated by the Project, to analyze the existing traffic conditions, and to analyze the traffic conditions projected to occur after occupancy of the Project.

Mini-warehouse facilities are typically located strategically near areas in need of such facilities. By adding mini-warehousing opportunities into the existing and developing residential fabric and thereby improving destination proximity, local-serving mini-warehousing development tends to shorten trips and reduce VMT. The office component of the mini-warehouse facility is ancillary to the use and does not generate additional office-type trips. There are typically two employees who live on site; therefore, office and employee trips are expected to be on the order of 10 or fewer trips per day. Thus, it is suggested that the lead agency may presume the Project creates a less-than-significant transportation impact.

The intersection of Avenue 12 and Road 39½ is currently operating at acceptable LOS during the p.m. peak hour but is operating at LOS E during the a.m. peak hour (specifically on the southbound approach). Peak-hour traffic signal warrants are not satisfied and calculated 95th-percentile queues are not excessive.

The Project will not exacerbate the existing delays by a significant amount, and no new traffic issues will be caused by the Project.

Thank you for the opportunity to perform this traffic study. Please feel free to contact our office if you have any questions.

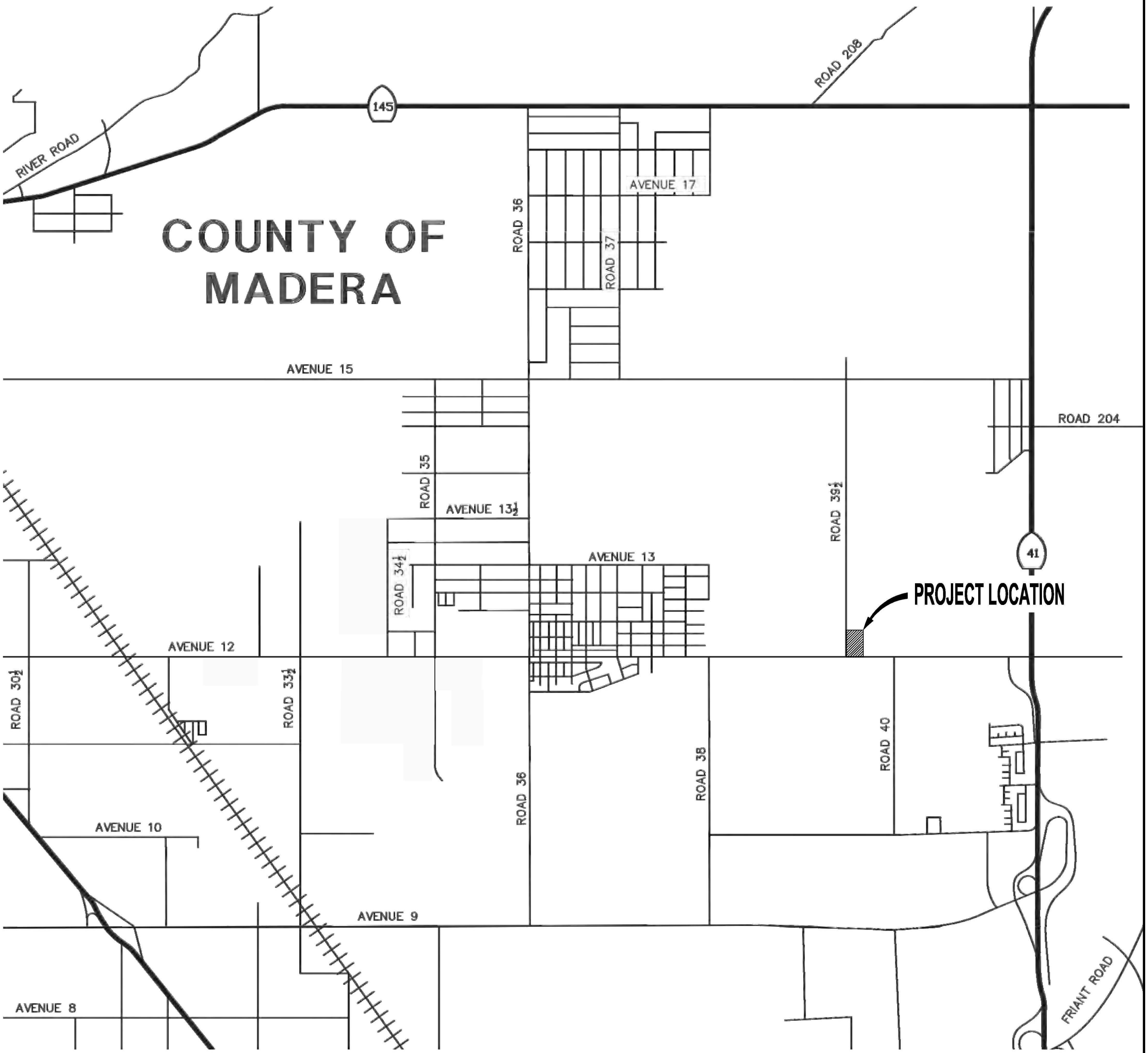
PETERS ENGINEERING GROUP

John Rowland, PE, TE

REGISTERED PROFESSIONAL ENGINEER
JOHN ROWLAND
NO. 2484
TRAFFIC
STATE OF CALIFORNIA

Attachments: Figures 1 through 8
Appendix A – Traffic Count Data Sheets
Appendix B – Intersection Analyses

FIGURES



LEGEND

PROJECT LOCATION

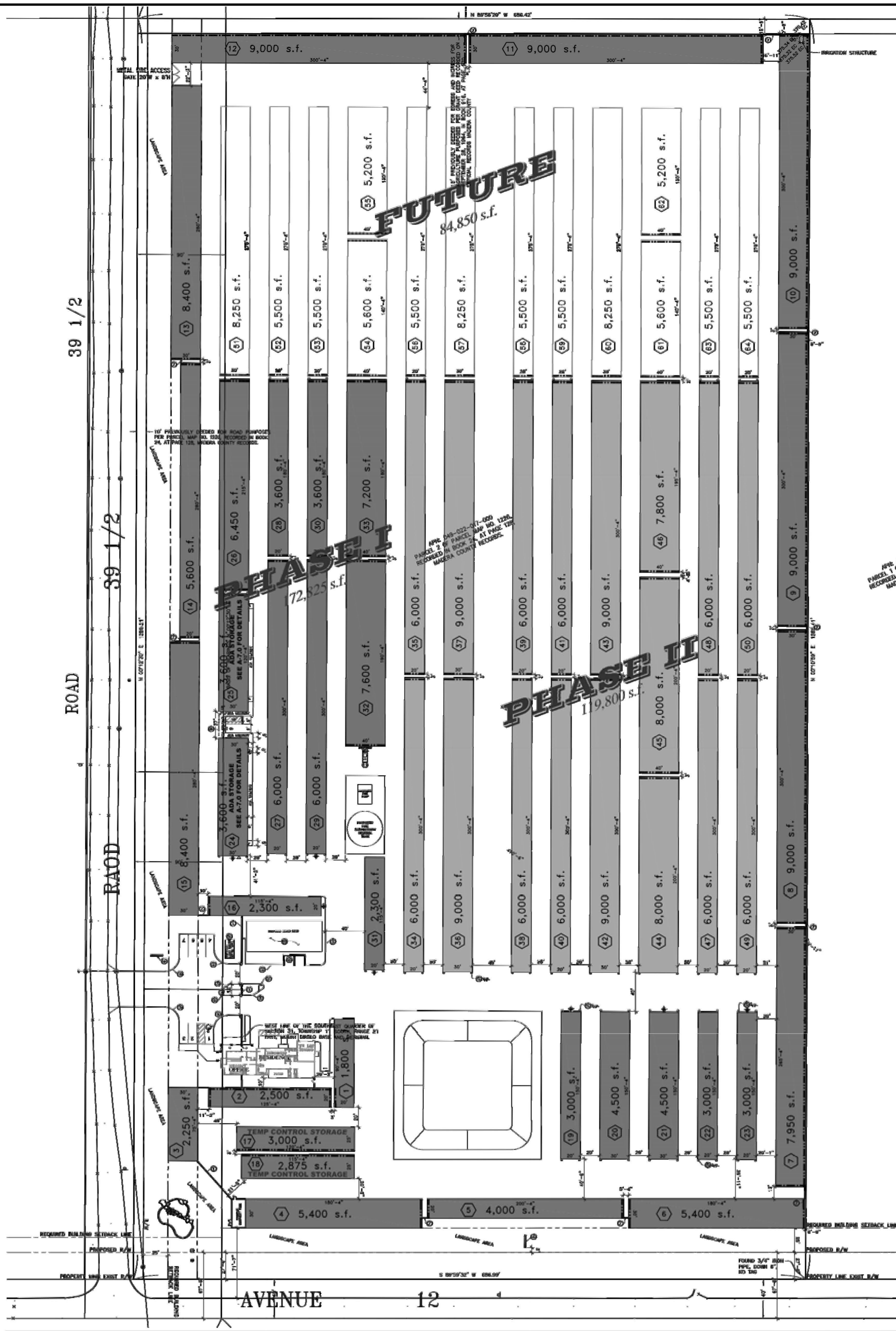
Proposed Derrel's Mini Storage
Madera County, California

VICINITY MAP

Not to Scale

PETERS ENGINEERING GROUP

Figure 1



Proposed Derrel's Mini Storage
Madera County, California

SITE PLAN

Not to Scale

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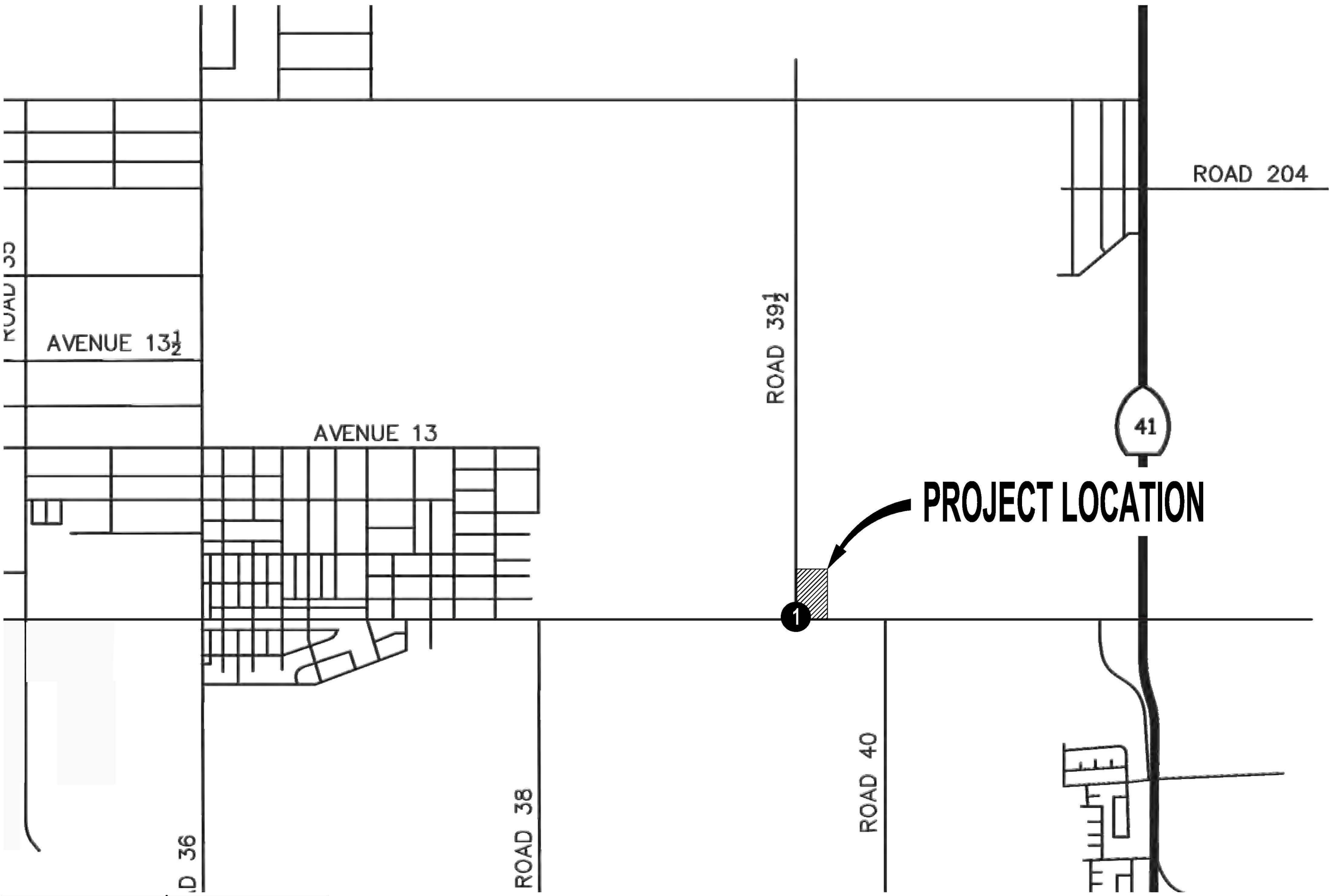
Figure 2



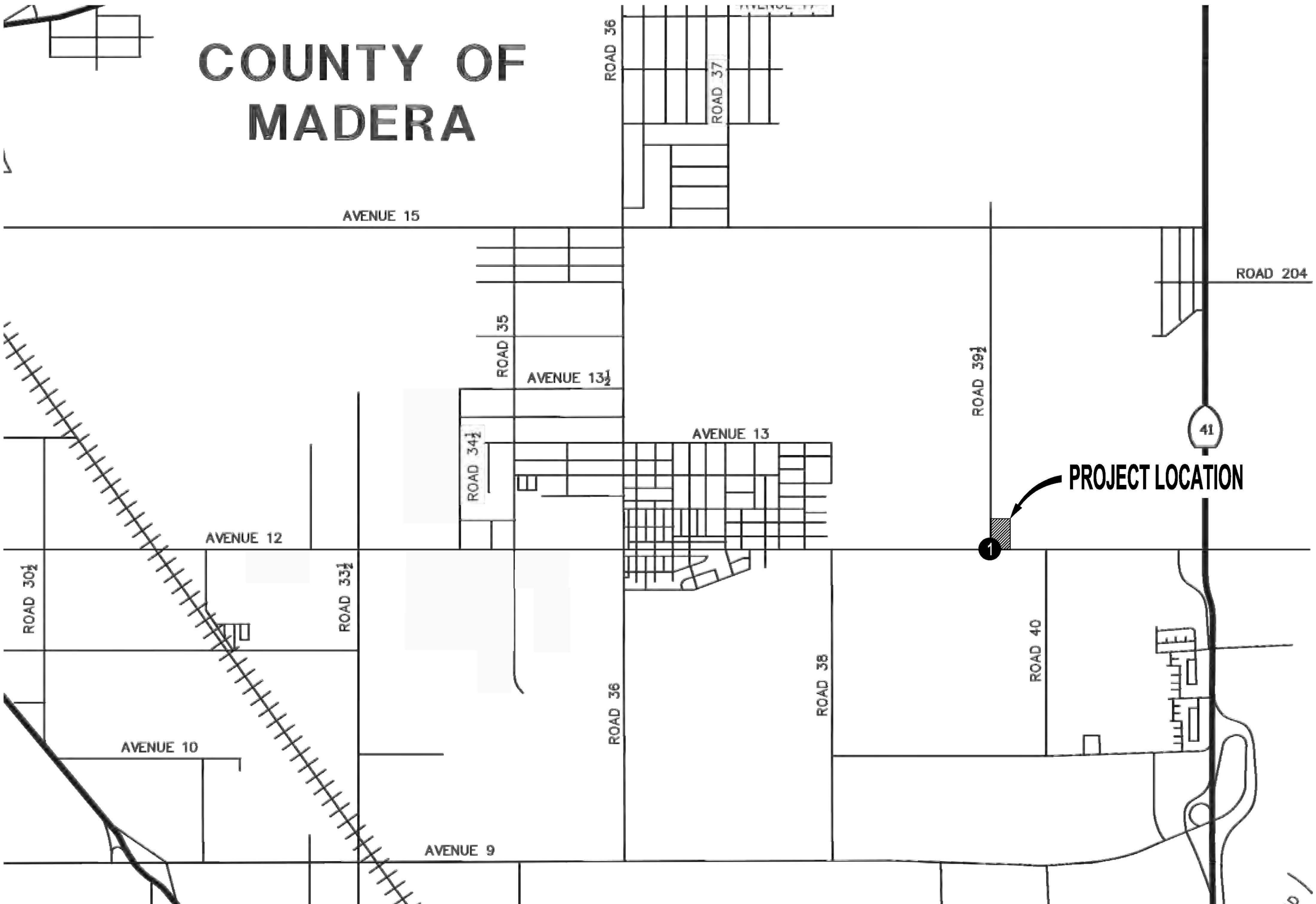
LEGEND

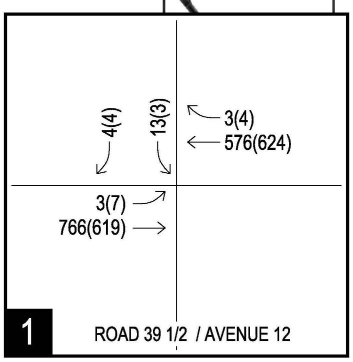
- STUDY AREA INTERSECTIONS
- PROJECT SITE
- STOP SIGN
- DIRECTION OF TRAVEL

Proposed Derrel's Mini Storage
Madera County, California

EXISTING LANE CONFIGURATIONS AND INTERSECTION CONTROL

Not to Scale





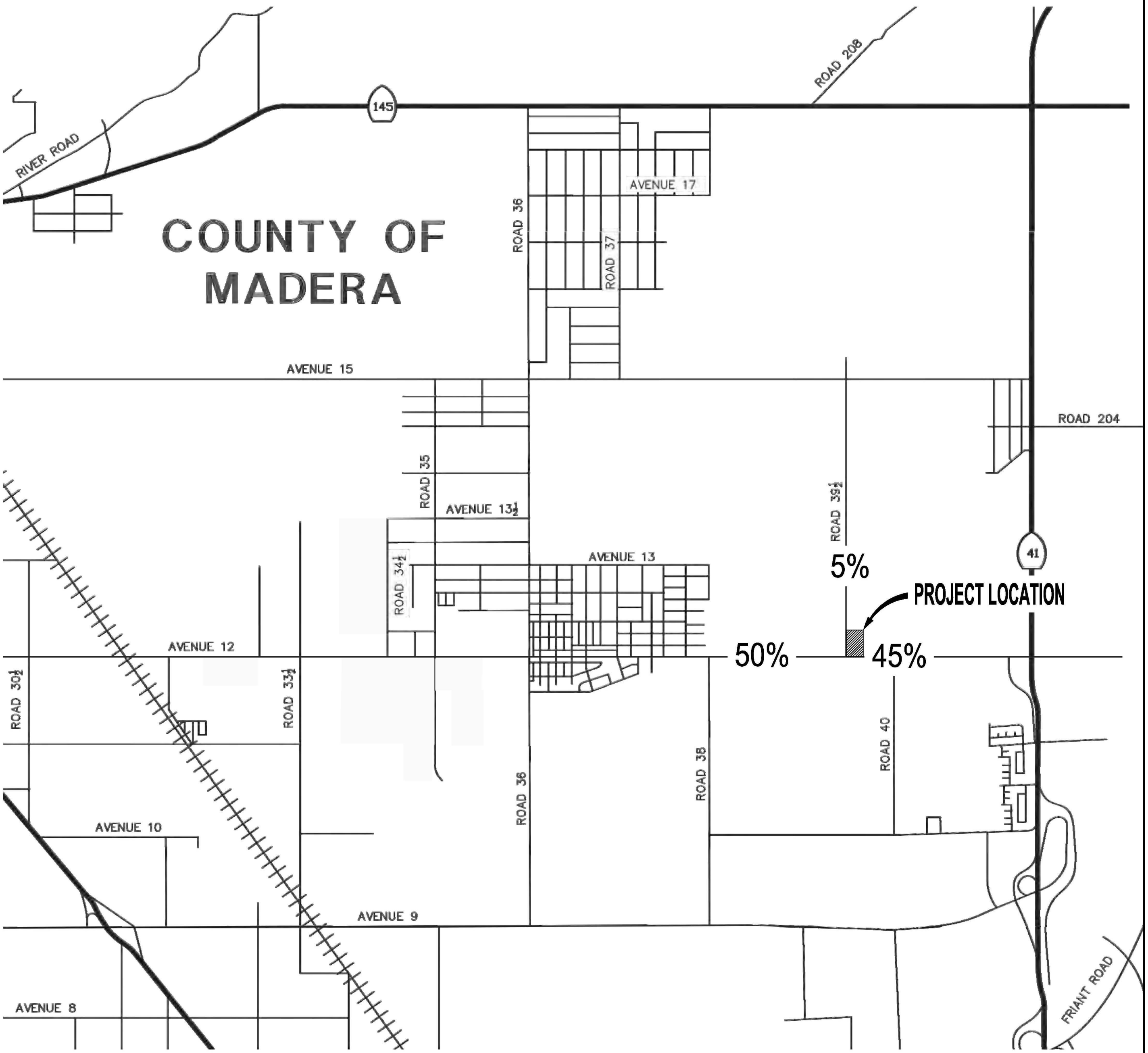
LEGEND

X	STUDY AREA INTERSECTIONS
XX (YY)	AM (PM) PEAK HOUR VOLUMES
	PROJECT SITE

Proposed Derrel's Mini Storage
Madera County, California

EXISTING PEAK-HOUR TRAFFIC VOLUMES

Not to Scale



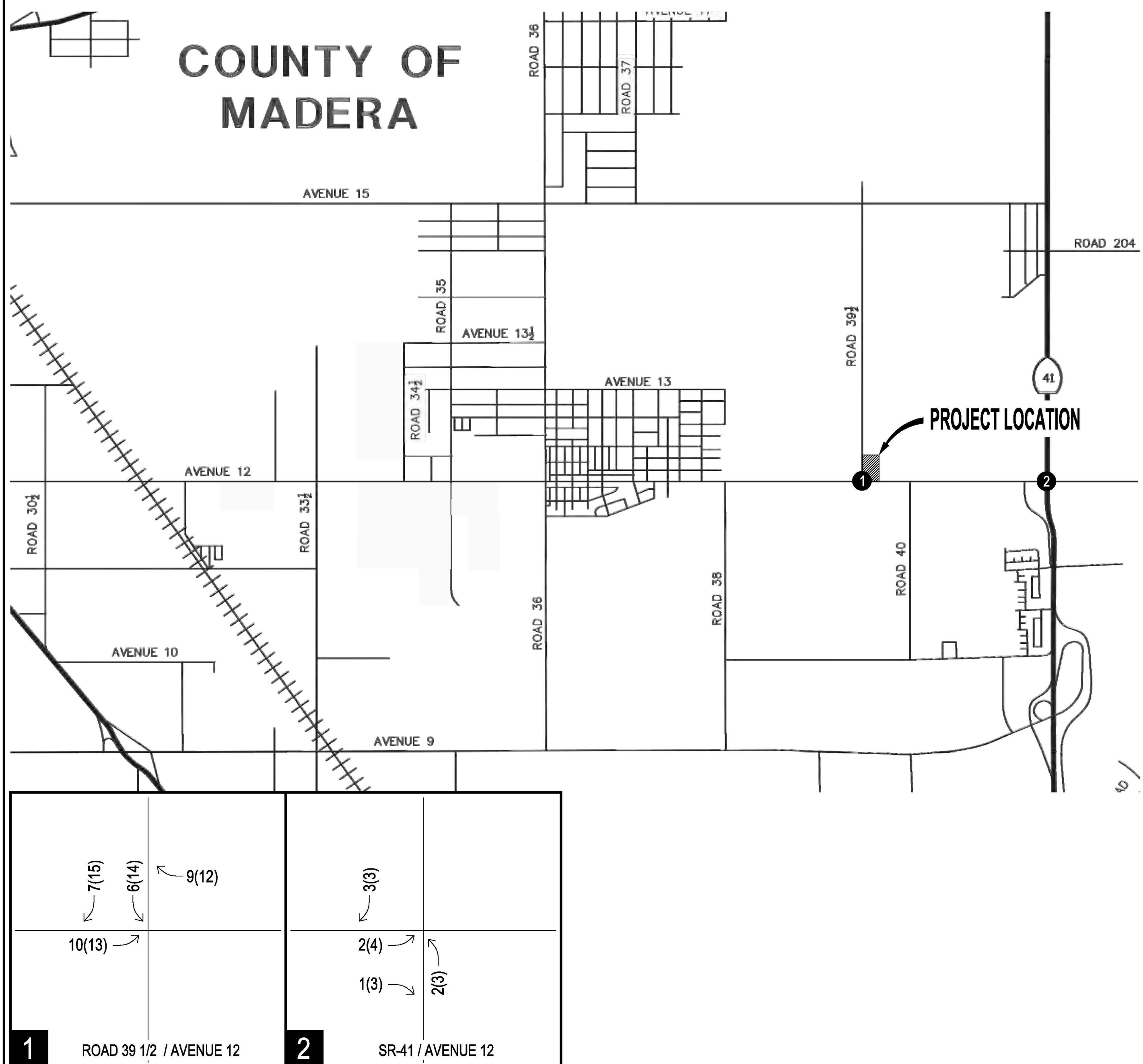
LEGEND

▨ PROJECT LOCATION

Proposed Derrel's Mini Storage
Madera County, California

PROJECT TRIP DISTRIBUTION PERCENTAGES

Not to Scale



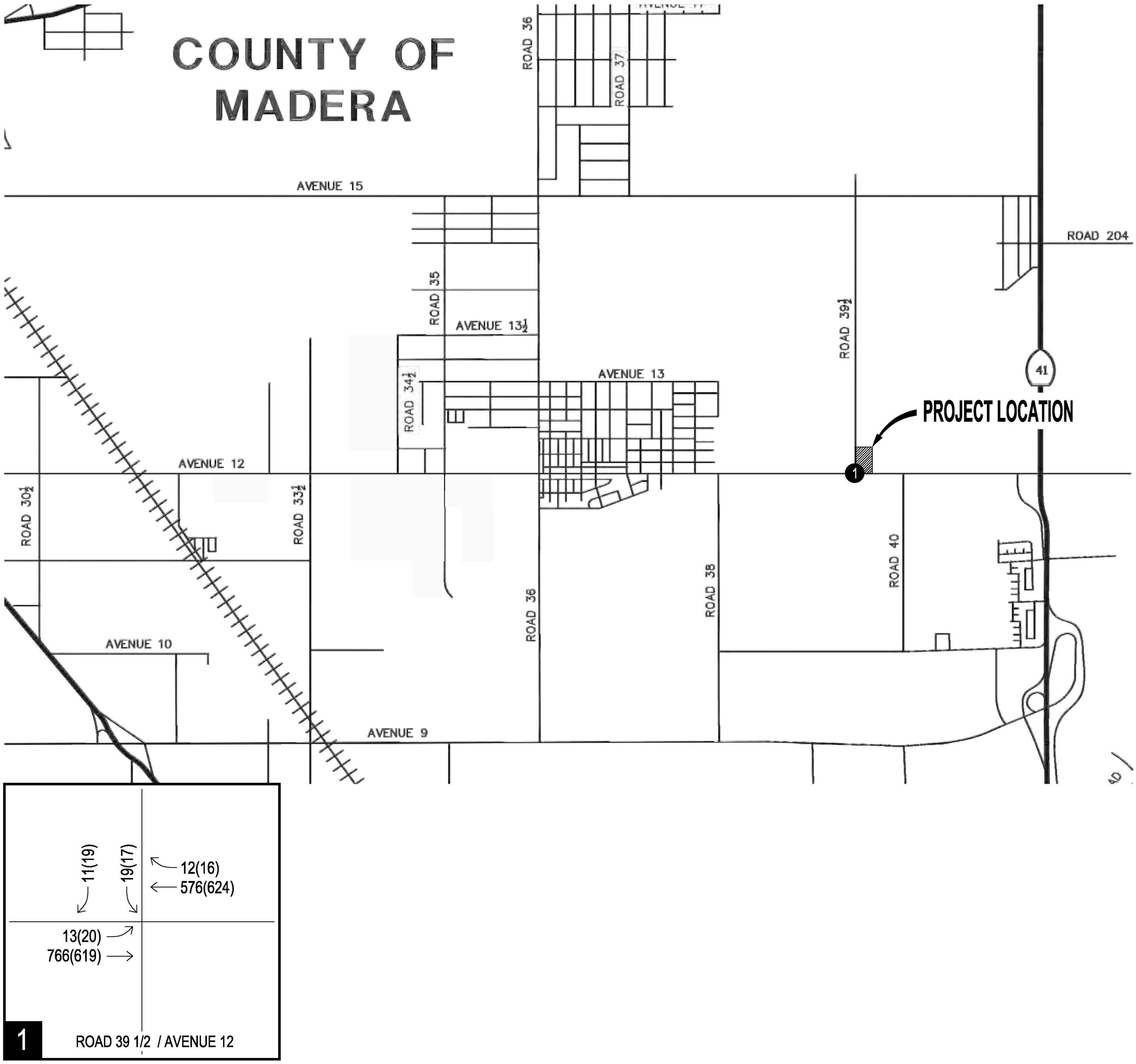
LEGEND

X	STUDY AREA INTERSECTIONS
XX (YY)	AM (PM) PEAK HOUR VOLUMES
	PROJECT SITE

Proposed Derrel's Mini Storage
Madera County, California

PROJECT PEAK-HOUR TRAFFIC VOLUMES
PHASES 1 THROUGH 3 DEVELOPED

Not to Scale



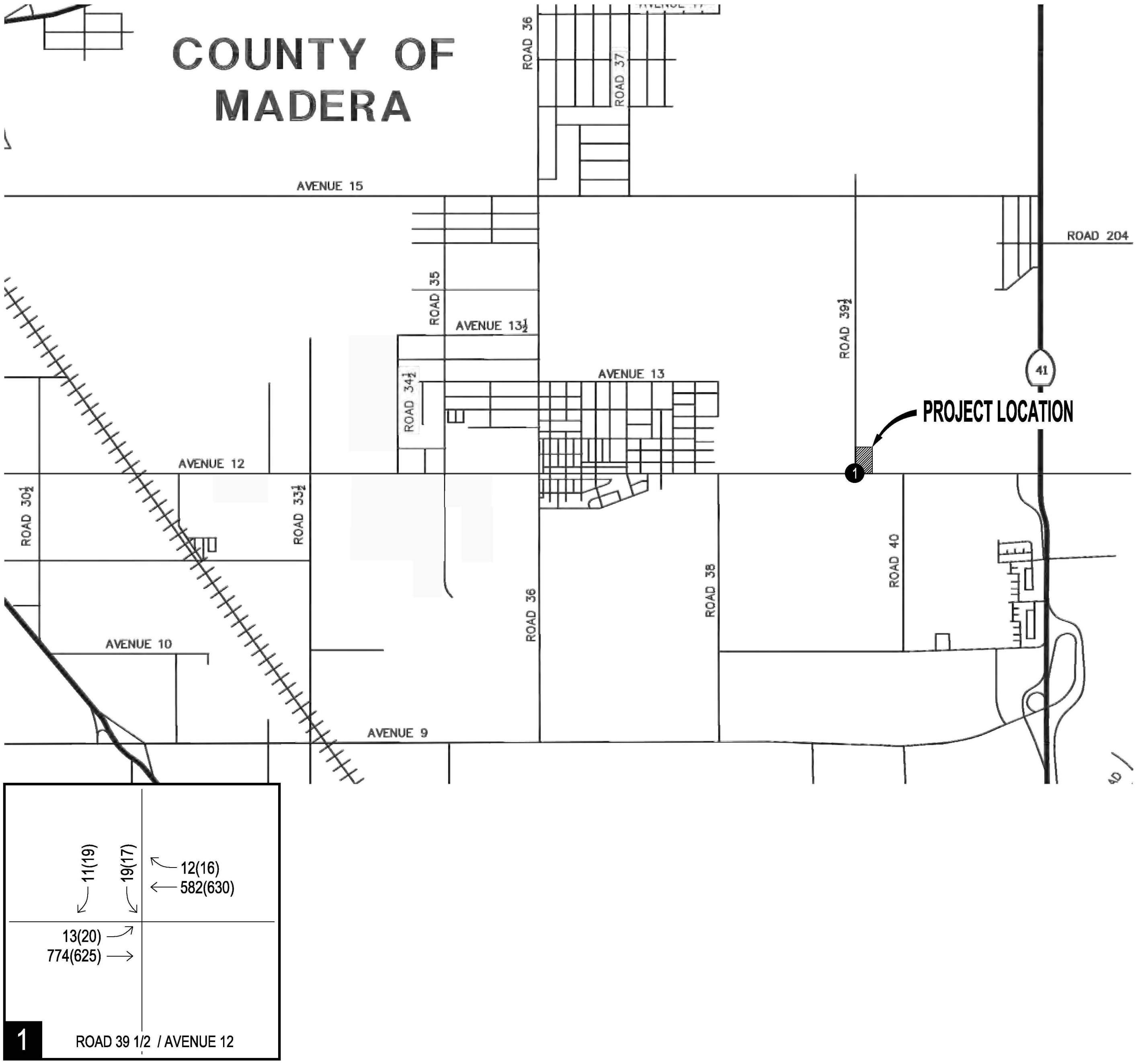
LEGEND

X	STUDY AREA INTERSECTIONS
XX (YY)	AM (PM) PEAK HOUR VOLUMES
	PROJECT SITE

Proposed Derrel's Mini Storage
Madera County, California

EXISTING-PLUS-PROJECT PEAK-HOUR TRAFFIC VOLUMES

Not to Scale



LEGEND

X	STUDY AREA INTERSECTIONS
XX (YY)	AM (PM) PEAK HOUR VOLUMES
	PROJECT SITE

Proposed Derrel's Mini Storage
Madera County, California

OPENING-DAY WITH-PROJECT PEAK-HOUR TRAFFIC VOLUMES

Not to Scale

APPENDIX A

TRAFFIC COUNT DATA SHEETS

Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:
Peters Engineering Group
862 Pollasky Avenue
Clovis, CA 93612

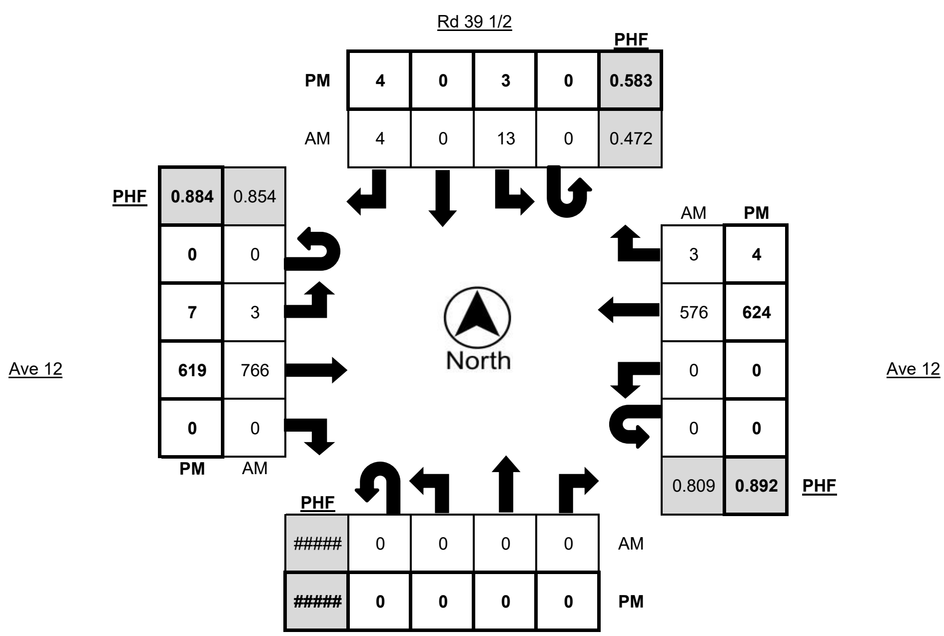
LOCATION Ave 12 @ Rd 39 1/2
LATITUDE 36.9231
COUNTY Madera
LONGITUDE -119.8306
COLLECTION DATE Thursday, January 18, 2024
WEATHER Clear

	Northbound					Southbound					Eastbound					Westbound				
Time	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
7:00 AM - 7:15 AM	0	0	0	0	0	0	2	0	3	0	0	1	155	0	5	0	0	90	0	2
7:15 AM - 7:30 AM	0	0	0	0	0	0	1	0	2	0	0	0	171	0	2	0	0	158	1	5
7:30 AM - 7:45 AM	0	0	0	0	0	0	2	0	1	0	0	0	225	0	3	0	0	178	1	5
7:45 AM - 8:00 AM	0	0	0	0	0	0	8	0	1	0	0	2	190	0	7	0	0	132	1	4
8:00 AM - 8:15 AM	0	0	0	0	0	0	2	0	0	0	0	1	180	0	6	0	0	108	0	3
8:15 AM - 8:30 AM	0	0	0	0	0	0	1	0	0	0	0	1	186	0	0	0	0	107	0	4
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	181	0	4	0	0	114	1	7
8:45 AM - 9:00 AM	0	0	0	0	0	0	1	0	1	0	0	1	134	0	4	0	0	74	0	4
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**17**	**0**	**8**	**0**	**0**	**7**	**1422**	**0**	**31**	**0**	**0**	**961**	**4**	**34**

	Northbound					Southbound					Eastbound					Westbound				
Time	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	169	0	3	0	0	134	0	5
4:15 PM - 4:30 PM	0	0	0	0	0	0	1	0	1	0	0	2	175	0	0	0	0	164	0	2
4:30 PM - 4:45 PM	0	0	0	0	0	0	1	0	1	0	0	2	144	0	1	0	0	139	1	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	164	0	2	0	0	147	1	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	1	0	2	0	0	2	136	0	4	0	0	174	2	1
5:15 PM - 5:30 PM	0	0	0	0	0	0	1	0	1	0	0	1	177	0	0	0	0	156	0	2
5:30 PM - 5:45 PM	0	0	0	0	0	0	2	0	1	0	0	0	139	0	0	0	0	146	1	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	121	0	0	0	0	176	0	1
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**6**	**0**	**0**	**8**	**1225**	**0**	**10**	**0**	**0**	**1236**	**5**	**11**

	Northbound					Southbound					Eastbound					Westbound				
PEAK HOUR	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks	U-Turn	Left	Thru	Right	Trucks
7:15 AM - 8:15 AM	0	0	0	0	0	0	13	0	4	0	0	3	766	0	18	0	0	576	3	17
4:15 PM - 5:15 PM	0	0	0	0	0	0	3	0	4	0	0	7	619	0	7	0	0	624	4	3

	PHF	Trucks
AM	0.838	2.6%
PM	0.919	0.8%



Turning Movement Report

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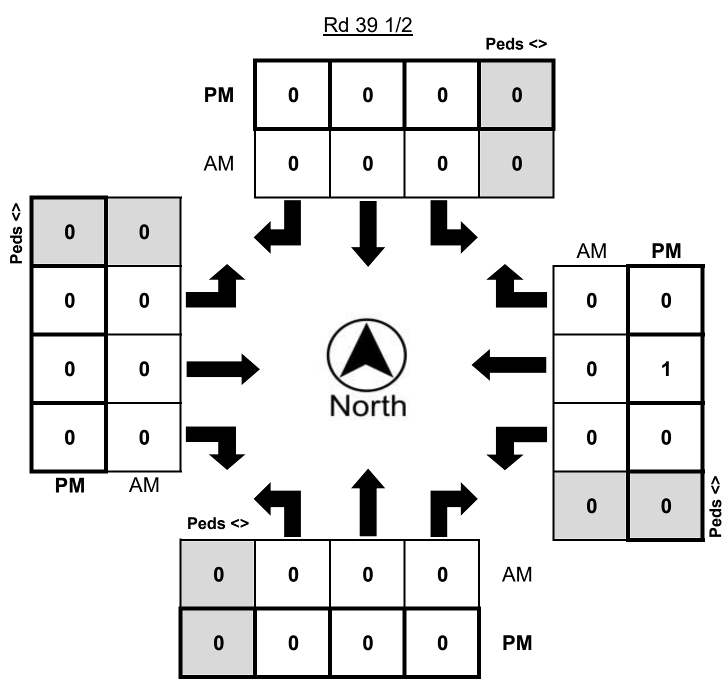
LOCATION Ave 12 @ Rd 39 1/2
LATITUDE 36.9231
COUNTY Madera
LONGITUDE -119.8306
COLLECTION DATE Thursday, January 18, 2024
WEATHER Clear

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**

	Northbound Bikes			N.Leg	Southbound Bikes			S.Leg	Eastbound Bikes			E.Leg	Westbound Bikes			W.Leg
PEAK HOUR	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	**1**	**0**



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

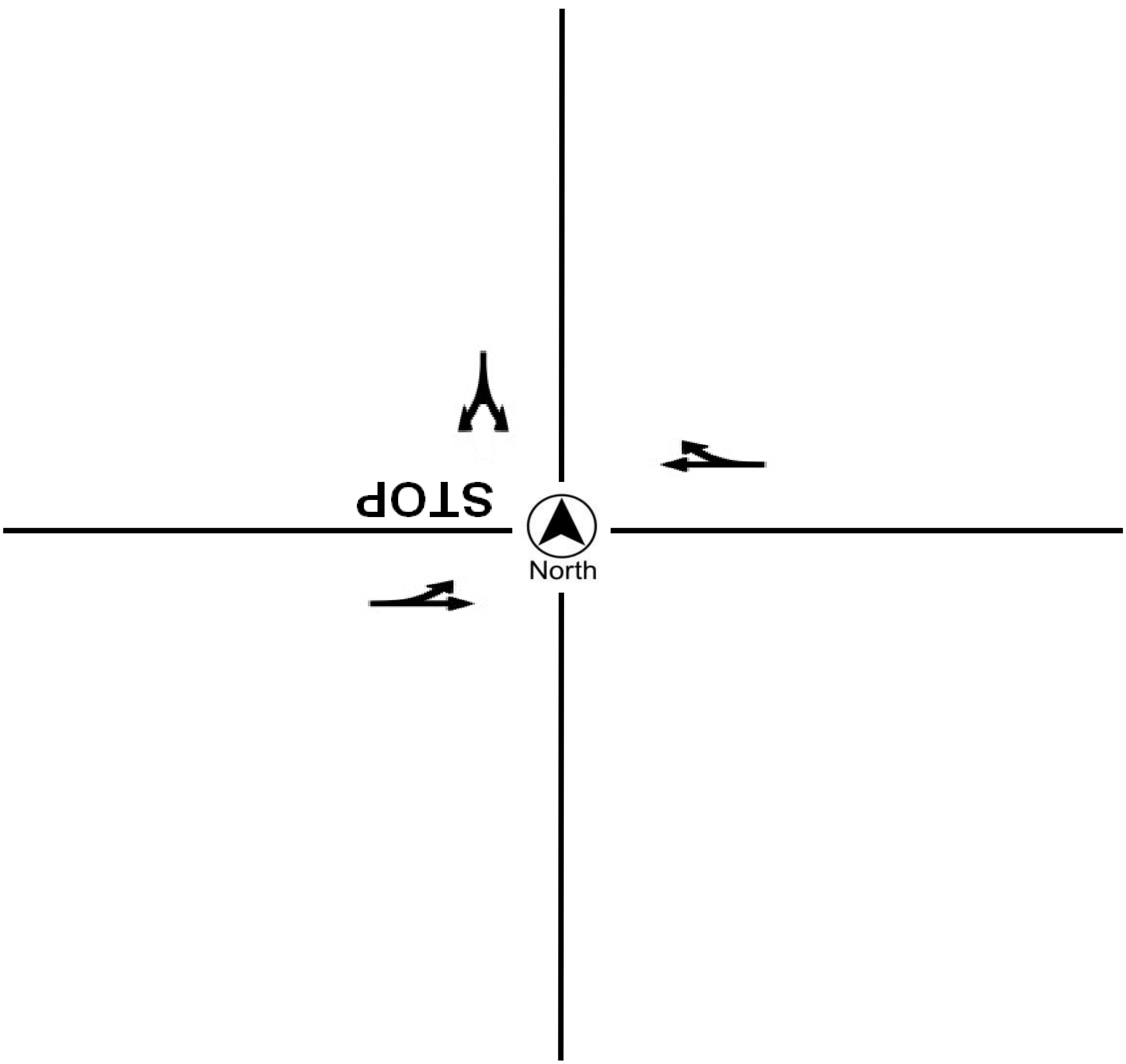
800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:
Peters Engineering Group
862 Pollasky Avenue
Clovis, CA 93612

LOCATION	Ave 12 @ Rd 39 1/2	**N/S STREET**	Rd 39 1/2
COUNTY	Madera	**E/W STREET**	Ave 12
COLLECTION DATE	Thursday, January 18, 2024	**WEATHER**	Clear
CYCLE TIME	NA	**CONTROL TYPE**	One-Way Stop

COMMENTS



APPENDIX B

INTERSECTION ANALYSES

Intersection						
Int Delay, s/veh	0.4					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	766	576	3	13	4
Future Vol, veh/h	3	766	576	3	13	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	912	686	4	15	5

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	690	0	-	0	1608	688
Stage 1	-	-	-	-	688	-
Stage 2	-	-	-	-	920	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	905	-	-	-	115	446
Stage 1	-	-	-	-	499	-
Stage 2	-	-	-	-	388	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	905	-	-	-	114	446
Mov Cap-2 Maneuver	-	-	-	-	114	-
Stage 1	-	-	-	-	495	-
Stage 2	-	-	-	-	388	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	35.5
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	905	-	-	-	138
HCM Lane V/C Ratio	0.004	-	-	-	0.147
HCM Control Delay (s)	9	0	-	-	35.5
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	619	624	4	3	4
Future Vol, veh/h	7	619	624	4	3	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	673	678	4	3	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	682	0	-	0	1369	680
Stage 1	-	-	-	-	680	-
Stage 2	-	-	-	-	689	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	911	-	-	-	162	451
Stage 1	-	-	-	-	503	-
Stage 2	-	-	-	-	498	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	911	-	-	-	160	451
Mov Cap-2 Maneuver	-	-	-	-	160	-
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	498	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	911	-	-	-	253
HCM Lane V/C Ratio	0.008	-	-	-	0.03
HCM Control Delay (s)	9	0	-	-	19.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.9					

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	766	576	12	19	11
Future Vol, veh/h	13	766	576	12	19	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	912	686	14	23	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	700	0	-	0	1635	693
Stage 1	-	-	-	-	693	-
Stage 2	-	-	-	-	942	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	897	-	-	-	111	443
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	379	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	897	-	-	-	107	443
Mov Cap-2 Maneuver	-	-	-	-	107	-
Stage 1	-	-	-	-	479	-
Stage 2	-	-	-	-	379	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	36.9
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	897	-	-	-	148
HCM Lane V/C Ratio	0.017	-	-	-	0.241
HCM Control Delay (s)	9.1	0	-	-	36.9
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	619	624	16	17	19
Future Vol, veh/h	20	619	624	16	17	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	673	678	17	18	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	695	0	-	0	1404	687
Stage 1	-	-	-	-	687	-
Stage 2	-	-	-	-	717	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	901	-	-	-	154	447
Stage 1	-	-	-	-	499	-
Stage 2	-	-	-	-	484	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	901	-	-	-	148	447
Mov Cap-2 Maneuver	-	-	-	-	148	-
Stage 1	-	-	-	-	480	-
Stage 2	-	-	-	-	484	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	23.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	901	-	-	-	229
HCM Lane V/C Ratio	0.024	-	-	-	0.171
HCM Control Delay (s)	9.1	0	-	-	23.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	774	582	12	19	11
Future Vol, veh/h	13	774	582	12	19	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	921	693	14	23	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	707	0	-	0	1651	700
Stage 1	-	-	-	-	700	-
Stage 2	-	-	-	-	951	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	891	-	-	-	109	439
Stage 1	-	-	-	-	493	-
Stage 2	-	-	-	-	375	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	891	-	-	-	105	439
Mov Cap-2 Maneuver	-	-	-	-	105	-
Stage 1	-	-	-	-	476	-
Stage 2	-	-	-	-	375	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	37.5
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	891	-	-	-	146
HCM Lane V/C Ratio	0.017	-	-	-	0.245
HCM Control Delay (s)	9.1	0	-	-	37.5
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	625	630	16	17	19
Future Vol, veh/h	20	625	630	16	17	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	679	685	17	18	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	702	0	-	0	1417	694
Stage 1	-	-	-	-	694	-
Stage 2	-	-	-	-	723	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	895	-	-	-	151	443
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	481	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	895	-	-	-	145	443
Mov Cap-2 Maneuver	-	-	-	-	145	-
Stage 1	-	-	-	-	477	-
Stage 2	-	-	-	-	481	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	24.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	895	-	-	-	225
HCM Lane V/C Ratio	0.024	-	-	-	0.174
HCM Control Delay (s)	9.1	0	-	-	24.3
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6