3315 SIERRA ROAD RESIDENTIAL DEVELOPMENT CONSTRUCTION HEALTH RISK ASSESSMENT

San José, California

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Introduction

The purpose of this report is to address the potential health risk impacts associated with the proposed residential development located at 3315 Sierra Road in San José, California. Air quality impacts from this project would be associated with the demolition of the existing land use and the construction of new single-family homes. Air pollutants associated with construction of the project were estimated using appropriate computer models. In addition, the potential project health risks and the impacts of existing toxic air contaminant (TAC) sources affecting nearby and proposed sensitive receptors were evaluated. The analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).[1]

Project Description

The 2.71-acre project site currently operates as a distribution center and retail front for the Oliveria Egg Ranch and is developed with three industrial buildings, a single-family residence, and five associated accessory structures totaling 43,200 square feet (sf). The project proposes to demolish the existing structures and redevelop the site with 25 single-family lots and 12 accessory dwelling units (ADUs), totaling 131,073-sf. Construction is proposed to begin in September 2024 and be completed by December 2025.

Setting

The project is located in Santa Clara County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$).

Air Pollutants of Concern

High ozone concentrations in the air basin are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_X). These precursor pollutants react under certain meteorological conditions to form ozone concentrations. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ambient ozone concentrations. The highest ozone concentrations in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone concentrations aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant in the air basin. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter

[1] Bay Area Air Quality Management District, *2022 CEQA Guidelines*, April 2023.

concentrations aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Toxic Air Contaminants

TACs are a broad class of compounds known to cause morbidity or mortality, often because they cause cancer. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Because chronic exposure of TACs can result in adverse health effects, they are regulated at the regional, State, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects from diesel exhaust exposure a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs. Health risks from TACs are estimated using the Office of Environmental Health Hazard Assessment (OEHHA) risk assessment guidelines, which were published in February of 2015 and incorporated in BAAQMD's current CEQA guidance.[2]

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, people over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. For cancer risk assessments, infants and small children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children. The closest sensitive receptors to the project site are the multi-family residences adjacent to the north and the single-family residences adjacent to the east of the project site as well as the single- and multi- family residences surrounding the site. Additionally, there are children located at the Piedmont Hills High School northwest of the project site. This project would introduce new sensitive receptors (i.e., residents) to the area.

Bay Area Air Quality Management District (BAAQMD)

BAAQMD has jurisdiction over an approximately 5,600-square mile area, commonly referred to as the San Francisco Bay Area (Bay Area). The District's boundary encompasses the nine San

[2] OEHHA, 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. Office of Environmental Health Hazard Assessment. February.

Francisco Bay Area counties, including Alameda County, Contra Costa County, Marin County, San Francisco County, San Mateo County, Santa Clara County, Napa County, southwestern Solano County, and southern Sonoma County.

BAAQMD is the lead agency in developing plans to address attainment and maintenance of the National Ambient Air Quality Standards and California Ambient Air Quality Standards. The District also has permit authority over most types of stationary equipment utilized for the proposed project. The BAAQMD is responsible for permitting and inspection of stationary sources; enforcement of regulations, including setting fees, levying fines, and enforcement actions; and ensuring that public nuisances are minimized.

BAAQMD's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposures to outdoor TACs in the Bay Area.[3] The program examines TAC emissions from point sources, area sources, and on-road and off-road mobile sources with an emphasis on diesel exhaust, which is a major contributor to airborne health risk in California. The CARE program is an on-going program that encourages community involvement and input. The technical analysis portion of the CARE program has been implemented in three phases that includes an assessment of the sources of TAC emissions, modeling and measurement programs to estimate concentrations of TAC, and an assessment of exposures and health risks. Throughout the program, information derived from the technical analyses has been used to develop emission reduction activities in areas with high TAC exposures and high density of sensitive populations. Risk reduction activities associated with the CARE program are focused on the most at-risk communities in the Bay Area. Seven areas have been identified by BAAQMD as impacted communities. They include Eastern San Francisco, Richmond/San Pablo, Western Alameda, San José, Vallejo, Concord, and Pittsburgh/Antioch. The project site is not within a CARE area.

Overburdened communities are areas located (i) within a census tract identified by the California Communities Environmental Health Screening Tool (CalEnviroScreen), Version 4.0 implemented by OEHHA, as having an overall score at or above the 70th percentile, or (ii) within 1,000 feet of any such census tract.[4] The BAAQMD has identified several overburdened areas within its boundaries. However, the project site is not within an overburdened area as the Project site is scored at the 7th percentile on CalEnviroScreen.[5]

BAAQMD CEQA Air Quality Guidelines

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA. In 2023, the BAAQMD revised the *California Environmental Quality Act* (*CEQA) Air Quality Guidelines* that include significance thresholds to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The current BAAQMD guidelines provide recommended procedures for evaluating potential air impacts during the environmental

[3] See BAAQMD: https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program.
[4] See BAAQMD: https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20210722_01_appendixd_mapsofoverburdenedcommunities-pdf.pdf?la=en.
[5] OEHAA, CalEnviroScreen 4.0 Maps https://experience.arcgis.com/experience/11d2f52282a54ceebcac7428e6184203/page/CalEnviroScreen-4_0/

review process consistent with CEQA requirements including thresholds of significance, mitigation measures, and background air quality information. They include assessment methodologies for criteria air pollutants, air toxics, odors, and GHG emissions as shown in Table 1.[6] Air quality impacts and health risks are considered potentially significant if they exceed these thresholds.

Table 1. BAAQMD CEQA Significance Thresholds

Criteria Air Pollutant	**Construction Thresholds**			
	Average Daily Emissions (lbs./day)			
ROG	54			
NO_x	54			
PM_{10}	82 (Exhaust)			
$PM_{2.5}$	54 (Exhaust)			
CO	Not Applicable			
Fugitive Dust (PM_{10}/$PM_{2.5}$)	Best Management Practices (BMPs)*			
Health Risks and Hazards	**Single Sources/ Individual Project**		**Combined Sources (Cumulative from all sources within 1000-foot zone of influence)**	
Excess Cancer Risk	>10 in a million	OR Compliance with Qualified Community Risk Reduction Plan	>100 in a million	OR Compliance with Qualified Community Risk Reduction Plan
Hazard Index	>1.0		>10.0	
Incremental annual $PM_{2.5}$	>0.3 µg/m^3		>0.8 µg/m^3	
Note: ROG = reactive organic gases, NOx = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less. * BAAQMD strongly recommends implementing all feasible fugitive dust management practices especially when construction projects are located near sensitive communities, including schools, residential areas, or other sensitive land uses.				

Source: Bay Area Air Quality Management District, 2022

The BAAQMD recommends all projects include a "basic" set of best management practices (BMPs) to manage fugitive dust and consider impacts from dust (i.e., fugitive PM_{10} and $PM_{2.5}$) to be less than significant if BMPs are implemented. The project would be required to implement the following BMPs recommended by BAAQMD, which have been adopted by the City of San José as Standard Permit Conditions, during all phases of construction to reduce dust and other particulate matter emissions.

***Basic Best Management Practices / Standard Permit Conditions:* Include measures to control dust and exhaust during construction.**

During any construction period ground disturbance, the applicant shall ensure that the project contractor implement measures to control dust and exhaust. Implementation of the measures

[6] Bay Area Air Quality Management District, 2023. *2022 CEQA Guidelines*. April.

recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less-than-significant level. The contractor shall implement the following BMPs that are required of all projects:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).

5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

6. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.

7. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.

8. Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.

9. Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

BAAQMD strongly encourages enhanced BMPs for construction sites near schools, residential areas, or other sensitive land uses. Enhanced measures include:

- Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.
- Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.
- Plant vegetative ground cover (e.g., fast-germinating native grass seed) in disturbed areas as soon as possible and watered appropriately until vegetation is established.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- Minimize the amount of excavated material or waste materials stored at the site.

- Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 10 calendar days.

San José Envision 2040 General Plan

The San José Envision 2040 General Plan includes goals, policies, and actions to reduce exposure of the City's sensitive population to exposure of air pollution and toxic air contaminants or TACs. The following goals, policies, and actions are applicable to the proposed project and this assessment:

Applicable Goals – Air Pollutant Emission Reduction

Goal MS-10 Minimize emissions from new development.

Applicable Policies – Air Pollutant Emission Reduction

MS-10.1 Assess projected air emissions from new development in conformance with the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines and relative to state and federal standards. Identify and implement feasible air emission reduction measures.

MS-10.2 Consider the cumulative air quality impacts from proposed developments for proposed land use designation changes and new development, consistent with the region's Clean Air Plan and State law.

MS-10.3 Promote the expansion and improvement of public transportation services and facilities, where appropriate, to both encourage energy conservation and reduce air pollution.

MS-10.5 In order to reduce vehicle miles traveled and traffic congestion, require new development within 2,000 feet of an existing or planned transit station to encourage the use of public transit and minimize the dependence on the automobile through the application of site design guidelines and transit incentives.

MS-10.7 Encourage regional and statewide air pollutant emission reduction through energy conservation to improve air quality.

MS-10.11 Enforce the City's wood-burning appliance ordinance to limit air pollutant emissions from residential and commercial buildings.

MS-10.13 As a part of City of San José Sustainable City efforts, educate the public about air polluting household consumer products and activities that generate air pollution. Increase public awareness about the alternative products and activities that reduce air pollutant emissions.

Applicable Goals – Toxic Air Contaminants

Goal MS-11 Minimize exposure of people to air pollution and toxic air contaminants such as ozone, carbon monoxide, lead, and particulate matter.

Applicable Policies – Toxic Air Contaminants

MS-11.1 Require completion of air quality modeling for sensitive land uses such as new residential developments that are located near sources of pollution such as freeways and industrial uses. Require new residential development projects and projects categorized as sensitive receptors to incorporate effective mitigation into project designs or be located an adequate distance from sources of toxic air contaminants (TACs) to avoid significant risks to health and safety.

MS-11.2 For projects that emit toxic air contaminants, require project proponents to prepare health risk assessments in accordance with BAAQMD-recommended procedures as part of environmental review and employ effective mitigation to reduce possible health risks to a less than significant level. Alternatively, require new projects (such as, but not limited to, industrial, manufacturing, and processing facilities) that are sources of TACs to be located an adequate distance from residential areas and other sensitive receptors.

MS-11.4 Encourage the installation of appropriate air filtration at existing schools, residences, and other sensitive receptor uses adversely affected by pollution sources.

MS-11.5 Encourage the use of pollution absorbing trees and vegetation in buffer areas between substantial sources of TACs and sensitive land uses.

Actions – Toxic Air Contaminants

MS-11.6 Develop and adopt a comprehensive Community Risk Reduction Plan that includes: baseline inventory of TACs and $PM_{2.5}$, emissions from all sources, emissions reduction targets, and enforceable emission reduction strategies and performance measures. The Community Risk Reduction Plan will include enforcement and monitoring tools to ensure regular review of progress toward the emission reduction targets, progress reporting to the public and responsible agencies, and periodic updates of the plan, as appropriate.

MS-11.7 Consult with BAAQMD to identify stationary and mobile TAC sources and determine the need for and requirements of a health risk assessment for proposed developments.

MS-11.8 For new projects that generate truck traffic, require signage which reminds drivers that the State truck idling law limits truck idling to five minutes.

Applicable Goals – Construction Air Emissions

Goal MS-13 Minimize air pollutant emissions during demolition and construction activities.

Applicable Policies – Construction Air Emissions

MS-13.1 Include dust, particulate matter, and construction equipment exhaust control measures as conditions of approval for subdivision maps, site development and

planned development permits, grading permits, and demolition permits. At minimum, conditions shall conform to construction mitigation measures recommended in the current BAAQMD CEQA Guidelines for the relevant project size and type.

Applicable Actions – Construction Air Emissions

MS-13.4 Adopt and periodically update dust, particulate, and exhaust control standard measures for demolition and grading activities to include on project plans as conditions of approval based upon construction mitigation measures in the BAAQMD CEQA Guidelines.

MS-13.5 Prevent silt loading on roadways that generates particulate matter air pollution by prohibiting unpaved or unprotected access to public roadways from construction sites.

MS-13.6 Revise the grading ordinance and condition grading permits to require that graded areas be stabilized from the completion of grading to commencement of construction.

Construction Period Emissions

The California Emissions Estimator Model (CalEEMod) Version 2022 was used to estimate emissions from on-site construction activity, construction vehicle trips, and evaporative emissions. The project land use types and size were input to CalEEMod. The CalEEMod model output along with construction inputs are included in *Attachment 1*.

CalEEMod Modeling

Land Use Inputs

The proposed project land uses were entered into CalEEMod as described in Table 2.

Table 2. Summary of Project Land Use Inputs

Project Land Uses	Size	Units	Square Feet (sf)	Acreage
Single Family Housing	25	Dwelling Unit	118,353	2.71
Condo/Townhouse	12	Dwelling Unit	12,720*	
*CalEEMod default square footage used.				

Construction Inputs

CalEEMod computes annual emissions for construction that are based on the project type, size, and acreage. The model provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. The construction build-out scenario, including equipment quantities, average hours per day, total number of workdays, and schedule, were provided by the project applicant (included in *Attachment 1*). The construction schedule

assumed that the earliest possible start date would be September 2024, and would be built out over a period of approximately 16 months, or 415 construction workdays. The earliest year of full operation was assumed to be 2026.

Construction Truck Traffic Emissions

Construction would produce traffic in the form of worker trips and truck traffic. The traffic-related emissions are based on worker and vendor trip estimates produced by CalEEMod and haul trips that were computed based on the demolition material to be exported, soil imported and/or exported to the site, and the concrete and asphalt truck trips to and from the site. CalEEMod provides daily estimates of worker and vendor trips for each applicable phase. Daily haul trips for demolition and grading were developed by CalEEMod using the provided demolition and soil import/export volumes. The number of total concrete/asphalt round haul trips were provided for the project and converted to daily one-way trips, assuming two trips per delivery. These values are shown in the project construction equipment worksheet included in *Attachment 1*.

Summary of Computed Construction Period Emissions

Average daily emissions were annualized for each year of construction by dividing the annual construction emissions and dividing those emissions by the number of active workdays during that year. Table 3 shows the annualized average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the project. As indicated in Table 3, predicted annualized project construction emissions would not exceed the BAAQMD significance thresholds during any year of construction.

Table 3. Construction Period Emissions

Year	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Construction Emissions Per Year (Tons)				
2024	0.02	0.24	0.01	0.01
2025	0.96	0.34	0.01	0.01
Average Daily Construction Emissions Per Year (pounds/day)				
2024 (104 construction workdays)	0.40	4.60	0.16	0.14
2025 (311 construction workdays)	6.20	2.19	0.07	0.06
BAAQMD Thresholds (pounds per day)	*54* lbs./day	*54* lbs./day	*82* lbs./day	*54* lbs./day
Exceed Threshold?	No	No	No	No

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site deposit mud on local streets, which is an additional source of airborne dust after it dries. The BAAQMD recommends all projects include a "basic" set of best management practices (BMPs) to manage fugitive dust and considers impacts from dust (i.e., fugitive PM_{10} and $PM_{2.5}$) to be less-than-significant if BMPs are implemented. San José General Policy MS-10.1 specifies that projects assess projected air emissions from new developments in conformance with the BAAQMD CEQA Guidelines and relative to state and federal standards. Construction projects must identify and implement all of these feasible air emission reduction measures. Therefore, the project would be required to implement the following BAAQMD BMPs,

which have been adopted by the City as Standard Permit Conditions (per General Plan policies MS 10.1, MS 13.1, and MS 13.4), during all phases of construction.

Standard Permit Conditions / Basic BMPs: **Include measures to control dust and exhaust during construction.**

During any construction period ground disturbance, the applicant shall ensure that the project contractor implement measures to control dust and exhaust. Implementation of the measures listed below would reduce the air quality impacts associated with grading and new construction to a less-than-significant level. The contractor shall implement the following BMPs that are required of all projects:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).

5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

6. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.

7. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.

8. Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.

9. Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

Effectiveness of Standard Permit Conditions / Basic BMPs

The measures above are consistent with BAAQMD-recommended basic BMPs for reducing fugitive dust contained in the BAAQMD CEQA Air Quality Guidelines. For this analysis, only the basic set of BMPs are required as the unmitigated fugitive dust emissions from construction are below the BAAQMD single-source threshold.

Construction Health Risk Impacts and Mitigation Measures Conditions of Approval

Project health risk impacts can occur either by generating emissions of TACs and fine particulate matter ($PM_{2.5}$) or by introducing a new sensitive receptor in proximity to an existing source of TACs/$PM_{2.5}$. Construction activity would temporarily generate emissions of DPM from equipment and trucks and dust ($PM_{2.5}$) that could affect nearby sensitive receptors. A construction health risk assessment was conducted to address impacts on the surrounding off-site sensitive receptors.

There may be sources of existing TACs and localized air pollutants in the vicinity of the project. The cumulative impact of the existing sources of TACs upon the existing sensitive receptors, including the project's contribution was assessed.

Health risk impacts are addressed by predicting increased lifetime cancer risk, the increase in annual $PM_{2.5}$ concentrations, and computing the Hazard Index (HI) for non-cancer health risks. Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. These exhaust emissions pose health risks for sensitive receptors such as surrounding residents. The primary health risk impact issues associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. A health risk assessment of the project construction activities was conducted that evaluated potential health effects to nearby sensitive receptors from construction emissions of DPM and $PM_{2.5}$.[7] This assessment included dispersion modeling to predict the offsite concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be evaluated.

Construction Emissions

The CalEEMod model provided total annual PM_{10} exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles, with total emissions from all construction stages being 0.02 tons (35 pounds). The on-road vehicle emissions are a result of haul truck travel on-site during demolition and grading activities, worker travel on-site, and vendor travel on-site during construction. A trip length of a half-mile was used to represent vehicle travel while at or near the construction site. Fugitive $PM_{2.5}$ dust emissions were calculated by CalEEMod as 0.01 tons (12 pounds) for the overall construction period.

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict DPM and $PM_{2.5}$ concentrations at sensitive receptors (i.e., residences, school) in the vicinity of the project construction area. The AERMOD dispersion model is a BAAQMD-recommended model for use in modeling analysis of these types of emission activities for CEQA projects.[8] Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive $PM_{2.5}$ dust emissions.

[7] DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.
[8] BAAQMD, 2023, *Appendix E of the 2022 BAAQMD CEQA Guidelines.* April.

Construction Sources

Combustion equipment DPM exhaust emissions were modeled as an array of point sources to reflect construction equipment and trucks operating at the site. These sources included nine-foot release heights (construction equipment exhaust stack height) that were placed at 23 feet (7 meter) intervals throughout the construction site. This resulted in 295 individual point sources being used to represent mobile equipment DPM exhaust emissions. The total DPM emissions were divided into each of the point sources that were spread throughout the project construction site. In addition, the following stack parameters were used for each point source: stack diameter of 2.5 inches, an exhaust temperature of 918˚F, and an exit velocity of 309 feet per second. Since these are point sources, plume rise is calculated by the AERMOD dispersion model. Emissions from vehicle travel on- and off-site were also distributed among the point sources throughout the site.

For modeling fugitive $PM_{2.5}$ emissions, an area source with a near-ground level release height of 7 feet (2 meters) was used. Fugitive dust emissions at construction sites come from a variety of sources, including truck and equipment travel, grading activities, truck loading (with loaders) and unloading (rear or bottom dumping), loaders and excavators moving and transferring soil and other materials, etc. All of these activities result in fugitive dust emissions at various heights at the point(s) of generation. Once generated, the dust plume will tend to rise as it moves downwind across the site and exit the site at a higher elevation than when it was generated. For all these reasons, a 7-foot release height was used as the average release height across the construction site.

AERMOD Inputs and Meteorological Data

The modeling used a five-year data set (2013 - 2017) of hourly meteorological data from the San José International Airport prepared for use with the AERMOD model by BAAQMD. Construction emissions were modeled as occurring Monday through Friday between 7:00 a.m. to 7:00 p.m. and Saturday between 9:00 a.m. to 5:00 p.m., per the project applicant's construction schedule. Annual DPM and $PM_{2.5}$ concentrations from construction activities during the 2024-2025 period were calculated at nearby sensitive receptors using the model. Receptor heights of 5 feet (1.5 meters) and 15 feet (4.5 meters) were used to represent the breathing heights on the first and second floors of nearby single and multi-family residences.[9] A receptor height of 3 feet (1 meter) was used to represent the breathing heights of children at the nearby high school.

Summary of Construction Health Risk Impacts

The maximum increased cancer risks were calculated using the modeled TAC concentrations combined with the BAAQMD CEQA guidance for age sensitivity factors and exposure parameters. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. Infant, child, and adult exposures were assumed to occur at all residences during the entire construction period. Third trimester, infant, child, and adult exposures were assumed to occur at all residences during the entire construction period, while child exposures were assumed to occur at the high school.

[9] Bay Area Air Quality Management District, 2012, Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0. May. Web: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en

Non-cancer health hazards and maximum $PM_{2.5}$ concentrations were also calculated. The maximum modeled annual $PM_{2.5}$ concentration was calculated based on combined exhaust and fugitive concentrations. The maximum computed HI value was based on the ratio of the maximum DPM concentration modeled and the chronic inhalation refence exposure level of 5 $\mu g/m^3$.

The modeled maximum annual DPM and $PM_{2.5}$ concentrations were identified at nearby sensitive receptors (as shown in Figure 1) to find the maximally exposed individuals (MEI). Results of this assessment indicated that the construction MEI was located at a single-family home south of the construction site. Table 4 summarizes the maximum cancer risks, $PM_{2.5}$ concentrations, and HI for project related construction activities affecting the construction MEI. *Attachment 2* to this report includes the emission calculations used for the construction modeling and the cancer risk calculations.

Additionally, modeling was conducted to predict the cancer risks, non-cancer health hazards, and maximum $PM_{2.5}$ concentrations associated with construction activities at the nearby Piedmont Hills High School. Receptors were placed throughout the closest academic buildings to the project site. Other school buildings that were associated with the athletic field and parking lot were not modeled. The maximum increased cancer risks were adjusted using child exposure parameters. The uncontrolled cancer risk, $PM_{2.5}$ concentration, and HI at the nearby school do not exceed their respective BAAQMD single-source significance thresholds, as shown in Table 4.

Construction risk impacts are shown in Table 4. The maximum cancer risks, annual $PM_{2.5}$ concentration, and Hazard Index from uncontrolled (i.e., unmitigated) construction activities at the MEI location would not exceed the BAAQMD single-source significance threshold.

Table 4. Construction Risk Impacts at the Off-Site MEI and School Receptors

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Impact				
Project Construction	Unmitigated	4.84 (infant)	0.04	<0.01
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	*No*	*No*	*No*
Impacts at Piedmont Hills High School				
Project Construction	Unmitigated	0.09 (child)	<0.01	<0.01
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	*No*	*No*	*No*

Figure 1. Locations of Project Construction Site, Off-Site Sensitive Receptors, and Maximum TAC Impact (MEI)

Cumulative Health Risks of all TAC Sources at the Offsite Project MEI

Cumulative health risk assessments look at all substantial sources of TACs located within 1,000 feet of a project site (i.e., influence area) that can affect sensitive receptors. These sources include rail lines, highways, busy surface streets, and stationary sources identified by BAAQMD.

A review of BAAQMD's geographic information systems (GIS) screening maps identified the existing health risks at the MEI. The screening-level impacts from nearby roadways were estimated using the roadway mapping tool, with impacts primarily coming from Piedmont Road. The stationary screening tool identified three existing stationary sources of TACs that affect the project MEI. Figure 2 shows the project area included within the influence area and the location of the MEI. Health risk impacts from these sources upon the MEIs are reported in Table 5. Details of the cumulative screening and health risk calculations are included in *Attachment 3.*

Figure 2. Project Site, 1,000-foot Influence Area, and Nearby TAC and $PM_{2.5}$ Sources

Local Roadways

The project site is located in a residential area with arterial roadways nearby (see Figure 2). Screening-level cancer risks, $PM_{2.5}$ concentrations, and HI associated with traffic on the local roadways were estimated using BAAQMD's GIS data files (i.e., raster files). BAAQMD raster files were produced using AERMOD and 20x20-meter emissions grid, EMFAC2021 data for vehicle emissions and fleet mix, and applies risk assessment assumptions provided in Appendix E of the Air District's CEQA Air Quality Guidance. Note that BAAQMD's screening values are considered higher than values that would be obtained with refined modeling methods. Screening-level cancer risk, $PM_{2.5}$ concentration, and HI at the project MEI are listed in Table 5.

Screened BAAQMD Permitted Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Permitted Stationary Sources 2021* GIS map website.[10] This mapping tool identifies the location of nearby stationary sources and their estimated risk and hazard impacts, based on emissions and

[10] BAAQMD, Web: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=845658c19eae4594b9f4b805fb9d89a3

adjustments to account for OEHHA's risk guidance. Three sources were identified using this tool, two gasoline dispensing facilities (GFDs) and a diesel emergency generator. A stationary source information request was submitted to BAAQMD in order to estimate health risk impacts from the gasoline dispensing facilities.[11]

The screening risk and hazard levels provided by BAAQMD for two of the stationary sources were adjusted for distance using CARB's *Gasoline Station Risk Screening Tool* and BAAQMD's *Distance Adjustment Multiplier Tool for Diesel Internal Combustion Engines.* Health risk impacts from the stationary sources upon the MEIs are reported in Table 5. One source, a GFD, had screening levels above the thresholds. Therefore, a refined analysis of the health risk impacts was prepared.

Refined Analysis – GFD Source #104098

Source #104098 is a seven-pump, fifteen hose fuel dispensing facility. It sells both gasoline and diesel and serves primarily light-duty vehicles. It is assumed the facility is operational 24 hours per day and 365 days per year.

GDFs are a source of TAC emissions because of the traffic traveling to and from the facility, vehicles idling at pump queues, evaporative emissions from vehicle fueling and spillage, tanker trucks delivering fuel to the facility, evaporative emissions from unloading fuel from trucks to storage tanks, and evaporative emissions from the natural off gassing that occurs during fuel storage (i.e., fuel tank breathing). The primary TACs of concern from GDFs are the different toxic components of vehicle exhaust emissions and the toxic components related to the evaporation of gasoline.[12] Health impacts from operation of the GDF are addressed by estimating emissions from each source assuming the facility is operational for 30 years. The year 2024 (construction start year) was selected as the year of analysis for emission rates. Vehicle emission rates are anticipated to decrease in the future due to improvements in exhaust systems and vehicle fleet turnover from older, more polluting vehicles to newer cleaner vehicles.

Traffic-Related Emissions from the GDF

Traffic related emissions are categorized into two types, on-site emissions, and off-site emissions. On-site emissions include travel to and from the fuel pumps, travel to and from the fuel tanks, and vehicle idling while in the fuel pump queue or unloading fuel into the storage tanks. Off-site emissions include the vehicle emissions from travel to and from the site.

It was estimated that the GDF will attract 2,648 customers (i.e., vehicles) per day. This is based on the facility's maximum allowable fuel dispensing quantity of 14.5 million gallons and an estimated average refueling quantity of 15 gallons per car. Each vehicle will produce two trips once on-site: one to the pumps and one leaving the pumps. Travel paths and emissions were estimated for onsite trips. The distribution of project traffic on local roads (Sierra Road and Piedmont Road) and project driveways were estimated. Vehicles were assumed to travel at an

[11] Correspondence with BAAQMD CEQA, April 18, 2023.
[12] BAAQMD. 2012. Recommended Methods for Screening and Modeling Local Risks and Hazard. May.

average speed of 35 mph while on Sierra Road and Piedmont Road based on speed limit signs and 5 mph while traveling on-site at the station.

The primary TACs of concern from project traffic are DPM and non-diesel mobile source air toxics found in total organic gases (TOG). This includes 14 different toxic components of TOG exhaust emissions and five different toxic components of TOG evaporative emissions from gasoline vehicles.[13] DPM, TOG, and $PM_{2.5}$ emissions from customer vehicles were calculated using emission factors from the Caltrans version of the CARB EMFAC2021 emissions model, known as CT-EMFAC2021, and the increased project-related traffic described above. Vehicle emission processes modeled include running/idle exhaust, running evaporative losses for TOG, tire and brake wear, and fugitive road dust. Vehicle emissions are projected to decrease in the future and are reflected in the CT-EMFAC2021 emissions estimates. Inputs to the model include region (i.e., Santa Clara County), type of road (for road dust calculation purposes), year of analysis (i.e., 2024), and season (Annual). It was assumed that this fuel dispensing facility serves only light and medium duty vehicles. The year 2024 emissions were assumed as being representative of future conditions over the period that cancer risks are evaluated (30 years), since, as discussed above, overall vehicle emissions will decrease in the future.

The CT-EMFAC2021 emission factor model provided emission rates of DPM (assumed to be the same as PM_{10} exhaust), $PM_{2.5}$, and TOG exhaust emissions and evaporative loss emissions. For TOG emissions, the BAAQMD has developed weighted toxicity values for tailpipe and evaporative losses that incorporates the individual toxicity of each compound that make up TOG.[14] The summation of all of the individual weighted toxicity values developed by BAAQMD is then cumulatively weighted and applied in the risk and hazard calculations. TOG emission rates used in the analysis are provided in *Attachment 3*.

Idling Emissions

Idling emissions due to vehicles queuing were computed by converting 5 mph emissions rates into hourly emissions for DPM, TOG, and $PM_{2.5}$ for vehicles. All vehicles using the facility were conservatively assumed to idle, on average, for 5 minutes during each visit to the station. Annual emissions assumed station operating conditions of 24 hours per day and 365 days per year. The analysis of idling emissions is provided in *Attachment 3*.

Gasoline Emissions

The transfer and storage of gasoline results in evaporative emissions, which are made up of several pollutants considered TACs, specifically Benzene, Ethylbenzene, Toluene, and Xylenes. For this analysis, only Benzene was modeled since it contributes to cancer risk more severely than the other TACs contained in gasoline emissions. Emissions of these pollutants were computed using emission factors developed by CARB[15] and a hypothetical maximum annual throughput of gasoline of 14.5 million gallons. Pollutant emissions were estimated for seven on-site GDF

[13] BAAQMD. 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazard, Version 3.0.* May.
[14] BAAQMD. 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazard, Version 3.0.* May.
[15] CARB. 2013. *Revised Emissions Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities.* December 23, 2013.

sources: storage tank loading, pressure driven tank losses (i.e., tank breathing), vehicle refueling, and fuel spillage while refueling. The refueling emission factors account for the effects of vehicles equipped with onboard refueling vapor recovery (ORVR) systems. ORVR systems were phased in beginning with 1998 model year passenger vehicles, and are now installed on all passenger, light-duty, and medium-duty vehicles manufactured since the 2006 model year. Emissions of the TAC pollutants were computed based on the assumptions provided in the Gasoline Service Station Industrywide Risk Assessment Guidelines.[16] A*ttachment 3* includes emissions calculation from GDF fuel transfer activities.

Dispersion Modeling

Concentrations were calculated at the MEI receptor for each TAC pollutant, DPM, and $PM_{2.5}$. AERMOD was used to calculate the concentrations using the same hourly meteorological data as previously discussed for the construction health risk modeling. Receptor heights of 1.5 meters (5 feet) were used to represent the breathing height of people at nearby single-family homes.

On-site vehicle travel emissions were modeled as area-line sources (a series of area sources along a line). Emissions from vehicles were assumed to have a release height of 1.3 meters (4.25 feet). Emissions from idling vehicles were modeled using an area source with dimensions corresponding to the pump queueing area.

TAC emissions from vehicle refueling and fuel spillage were modeled using volume sources as recommended by CAPCOA.[17] Fifty-two volume sources were input to represent emissions from the refueling area with side lengths of 6.5 meter (21 feet). A release height of 1 meter (3 feet) was used for vehicle refueling emissions, while a release height of 0 m (i.e., ground level) was used to represent emissions from spillage. Emissions from breathing losses are discharged from vent pipes located near the underground storage tank area and were modeled as a single point source for each tank. Details on the emission calculations and dispersion modeling information for these sources are provided in *Attachment 3*

Cancer Risk, Annual $PM_{2.5}$ Concentrations, and Non-Cancer HIs

Using the maximum modeled concentrations, health risks associated with operation of the GDF were computed using the methods used for the previous health risk analyses and as recommended by BAAQMD. Based on modeled TAC concentrations, cancer risks were calculated for 30-year residential exposures, assuming constant emissions at 2024 levels. Table 5 provides the cancer risk, annual $PM_{2.5}$ concentration, and HI associated with operation of the GDF.

[16] CAPCOA. 1997. *Air Toxics "Hot Spots" Program, Gasoline Service Station Industrywide Risk Assessment Guidelines*, November 1997

[17] CAPCOA. 1997. *Air Toxics "Hot Spots" Program, Gasoline Service Station Industrywide Risk Assessment Guidelines*, November 1997

Summary of Cumulative Health Risk Impacts

Table 5 reports both the project and cumulative health risk impacts at the sensitive receptors most affected by construction (i.e., the MEI). As shown, the project would not exceed the single-source or cumulative-source thresholds for cancer risk, annual $PM_{2.5}$ concentration, and HI.

Table 5. Impacts from Combined Sources at Construction MEI

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Project Impacts				
Project Construction	Unmitigated	4.84 (infant)	0.04	<0.01
BAAQMD Single-Source Threshold		***10***	***0.3***	***1.0***
Exceed Threshold?	Unmitigated	*No*	*No*	*No*
Cumulative Impacts				
Cumulative Roadways – BAAQMD Screening Raster Data		5.45	0.15	0.02
City of San Jose Fire Station #19 (Facility #19765 Generator), MEI at 580 feet		0.01	-	-
Piedmont Shell (Facility #112260, Gas Dispensing Facility), MEI at 530 feet		1.73	-	0.04
Rotten Robbie #43 (Facility #104098, Gas Dispensing Facility), AERMOD Modeled		1.46	-	<0.01
Cumulative Total	Unmitigated	13.49	0.19	<0.08
BAAQMD Cumulative Source Threshold		***100***	***0.8***	***10.0***
Exceed Threshold?	Unmitigated	*No*	*No*	*No*

Non-CEQA: On-site Health Risk Assessment of TAC Sources – New Sensitive Receptors

The City's General Plan Policy MS-11.1 requires new residential development projects and projects categorized as sensitive receptors to incorporate effective mitigation into project designs to avoid significant risks to health and safety. BAAQMD's recommended thresholds for health risks and hazards, shown in Table 1, are used to evaluate on-site exposure.

In addition to evaluating health impacts from project construction, a health risk assessment was completed to assess the impact that the existing TAC sources would have on the new proposed sensitive receptors (residents) that the project would introduce. The same TAC sources identified above were used in this health risk assessment.[18] On-site health risk results are listed in Table 6. Figure 3 shows the TAC sources affecting the new sensitive receptors. *Attachment 3* includes the screening and modeling information used for TAC source impacts upon the proposed on-site sensitive receptors.

[18] We note that to the extent this analysis considers *existing* air quality issues in relation to the impact on *future residents* of the Project, it does so for informational purposes only pursuant to the judicial decisions in *CBIA v. BAAQMD* (2015) 62 Cal.4th 369, 386 and *Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473, which confirm that the impacts of the environment on a project are excluded from CEQA unless the project itself "exacerbates" such impacts.

Local Roadways

The roadway analysis for the project residents was conducted using the BAAQMD screening maps previously described. Table 6 shows the health screening results from the local roadways.

Stationary Sources

The stationary source screening analysis of the two sources for the new project sensitive receptors was conducted in the same manner as described above for the construction MEI. Table 6 includes the health risk assessment results for the stationary sources.

The stationary source analysis of Source #104098 for the new project residents was conducted in the same manner as described above for the off-site MEI. However, the year 2026 (operational year) emission factors were conservatively assumed as being representative of future vehicular conditions, instead of 2024 (construction year). The project set of receptors were placed at the locations of the proposed homes. GDF impacts were modeled at receptor heights of 5 feet (1.5 meters) feet representing sensitive receptors in the single-family homes of the proposed project.

Maximum increased cancer risks were calculated for the residents at the project site using the maximum modeled TAC concentrations. A 30-year exposure period was used in calculating cancer risks assuming the residents would include third trimester pregnancy and infants/children and were assumed to be in the new housing area for 24 hours per day for 350 days per year. The highest impacts from the GDF occurred at a receptor at the western side of the project site. Cancer risks associated with GDF are greatest closest to the GDF and decrease with distance from the GDF. The GDF health risk impacts at the project site are shown in Table 6. Details of the emission calculations, dispersion modeling, and cancer risk calculations are contained in *Attachment 3.* Figure 3 shows the project site and receptor locations where impacts were modeled.

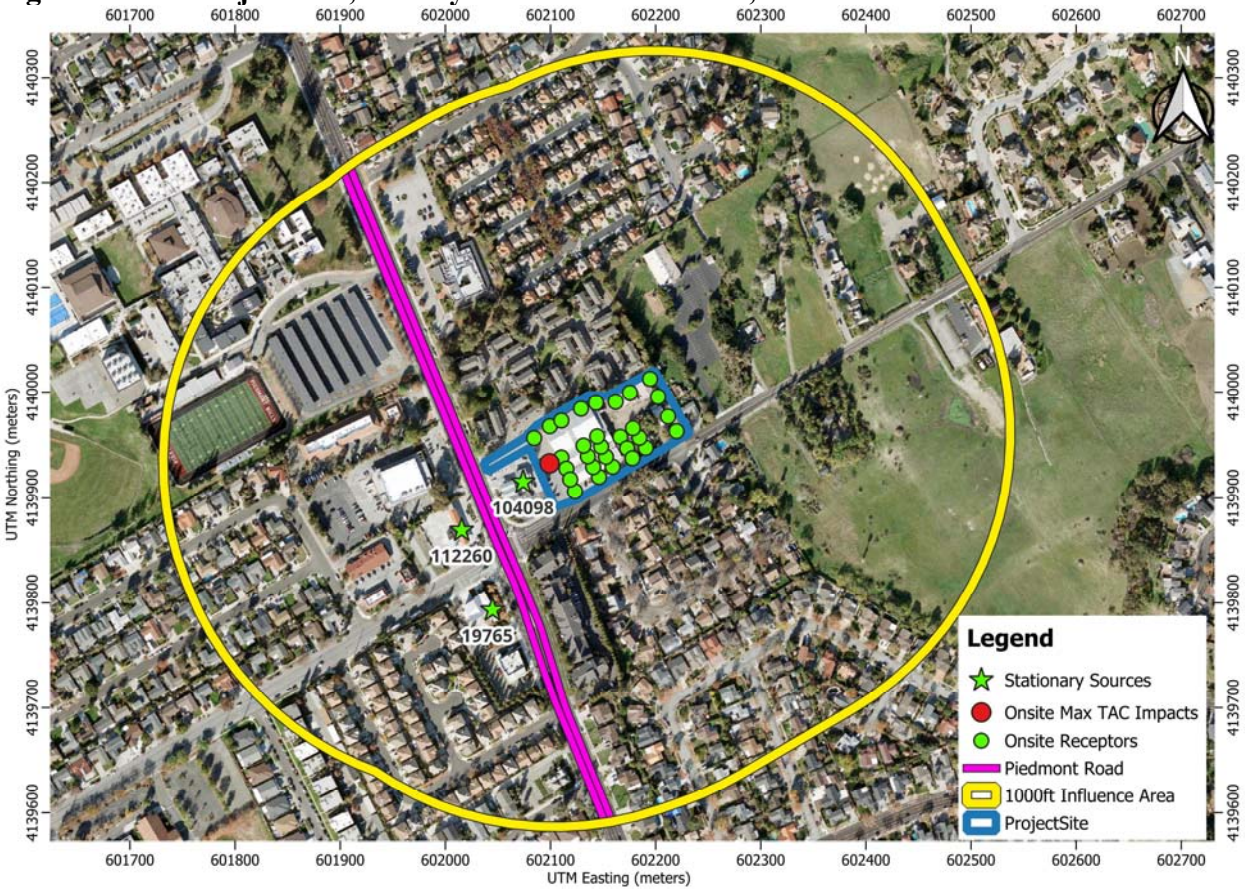
Summary of Cumulative Health Risks at the Project Site

Health risk impacts from the existing TAC sources upon the project site are reported in Table 6. The risks from each TAC source are compared against the BAAQMD single-source thresholds as well as the cumulative-source thresholds. As shown, none of the sources exceed the single-source or cumulative-source thresholds based on BAAQMD screening-level values and modeling of Stationary Source #104098.

Table 6. Impacts from Cumulative Sources to Project Site Receptors

Source	Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m^3$)	Hazard Index
Cumulative Roadways - BAAQMD Screening Raster Data	8.02	0.18	0.03
City of San Jose Fire Station #19 (Facility #19765 Generator), Project Site at 300 feet	0.02	-	-
Piedmont Shell (Facility #112260, Gas Dispensing Facility), Project Site at 240 feet	6.45	-	0.15
Rotten Robbie #43 (Facility #104098, Gas Dispensing Facility), AERMOD Modeled	8.80	-	0.04
BAAQMD Single-Source Threshold	***10***	***0.3***	***1.0***
Exceed Threshold?	***Yes***	*No*	*No*
Cumulative Total	23.29	0.18	0.22
BAAQMD Cumulative Source Threshold	***100***	***0.8***	***10.0***
Exceed Threshold?	*No*	*No*	*No*

Figure 3. Project Site, Nearby Cumulative Sources, and On-Site MEIs



Supporting Documentation

Attachment 1 includes the CalEEMod output for project construction emissions. Also included are any modeling assumptions.

Attachment 2 is the construction health risk assessment. This includes the summary of the dispersion modeling and the cancer risk calculations for construction. AERMOD dispersion modeling files for this assessment, which are quite voluminous, are available upon request and would be provided in digital format.

Attachment 3 includes the cumulative health screening and modeling results from sources affecting the construction MEI and project site receptors.

Attachment 1: CalEEMod Modeling Inputs and Outputs

Construction Criteria Air Pollutants							
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	PM2.5 Fugitive	**CO2e**	
Year	Tons					MT	
Construction Equipment							
2024	0.02	0.24	0.01	0.01	0.18	87.74	
2025	0.96	0.34	0.01	0.01	0.11	113.60	
	Total Construction Emissions						
Tons	0.02	0.24	0.01	0.01		201.35	
Pounds/Workdays	*Average Daily Emissions*					Workdays	
2024	0.40	4.60	0.16	0.14			**104**
2025	6.20	2.19	0.07	0.06			**311**
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**			
	Total Construction Emissions						
Pounds	41.65	477.84	16.60	14.78		0.00	
Average	0.10	1.15	0.04	0.04		0.00	415.00
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**			

Operational Criteria Air Pollutants							
Unmitigated	ROG	NOX	Total PM10	Total PM2.5			
Year	Tons						
Total	0.80	0.15	0.36	0.09			
	Existing Use Emissions						
Total	0.46	0.25	0.45	0.12			
	Net Annual Operational Emissions						
Tons/year	0.34	-0.09	-0.09	-0.03			
Threshold - Tons/year	**10.0**	**10.0**	**15.0**	**10.0**			
	Average Daily Emissions						
Pounds Per Day	1.87	-0.52	-0.52	-0.14			
Threshold - lbs/day	**54.0**	**54.0**	**82.0**	**54.0**			

Category	**CO2e**			
	Project	Existing	Project 2030	Existing
Mobile	338.15	450.78		
Area	0.46	0.63		
Energy	52.86	43.24		
Water	3.08	6.05		
Waste	8.89	14.16		
TOTAL	403.43	514.86	0.00	0.00
Net GHG Emissions		-111.43		0.00

Number of Days Per Year				
2024	9/2/2024	12/31/24	121	104
2025	1/1/25	12/28/2025	362	311
			483	**415** ***Total Workdays***

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	9/2/2024	10/17/2024	6	40
Site Preparation	10/18/2024	11/1/2024	6	13
Grading	11/2/2024	2/6/2025	6	83
Building Construction	1/1/2025	6/30/2025	6	155
Paving	2/7/2025	2/10/2025	6	3
Architectural Coating	7/1/2025	12/28/2025	6	155
Trenching	12/2/2024	3/2/2025	6	78

Sierra Road Air Quality/Noise Construction Information Data Request

Project Name: 3315 Sierra Road

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size 25 + 12 ADU's Dwelling Units 2.71 total project acres disturbed

131,073 s.f. residential

0 s.f. retail

0 s.f. office/commercial

0 s.f. other, specify:

0 s.f. parking garage _____ spaces

0 s.f. parking lot _____ spaces

Construction Days (i.e, M-F) M-F 7am-7pm to rday 9am- 5pm

Construction Hours see above am to see above pm

Pile Driving? Y/N? No.

Project include on-site GENERATOR OR FIRE PUMP during project OPERATION (not construction)? Y/N? No.

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: _____

Fuel Type: _____

Location in project (Plans Desired if Available):

DO NOT MULTIPLY EQUIPMENT HOURS/DAY BY THE QUANTITY OF EQUIPMENT

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments
	Demolition - 1.5 months	**Start Date:**	**9/2/2024**	**Total phase:**	**45**			**Overall Import/Export Volumes**
		End Date:	**10/17/2024**					
1	Concrete/Industrial Saws	81	0.73	6	2	0.3	710	**Demolition Volume**
2	Excavators	158	0.38	7	40	6.2	33622	Square footage of buildings to be demolished
0	Rubber-Tired Dozers	247	0.4	0	0	0.0	0	(*or* total tons to be hauled)
2	Tractors/Loaders/Backhoes	97	0.37	8	45	8.0	25841	**43,200sf buildings**
	Other Equipment?							**1500** Hauling volume (tons)
								Any pavement demolished and hauled?**750 tons (see below)**
	Site Preparation - 2 week	**Start Date:**	**10/18/2024**	**Total phase:**	**12**			21,403 gravel paving
		End Date:	**11/1/2024**					3184 concrete
0	Graders	187	0.41	0	0	0.0	0	25800 asphalt paving
0	Rubber Tired Dozers	247	0.4	0	0	0.0	0	
1	Tractors/Loaders/Backhoes	97	0.37	7	12	7.0	3015	
	Other Equipment?							
	Grading, utilities, concrete - 96 work days	**Start Date:**	**11/2/2024**	**Total phase:**	**96**			
		End Date:	**2/6/2025**					**Soil Hauling Volume**
1	Excavators	158	0.38	6	60	3.8	21614	Export volume = **800** cubic yards
1	Graders	187	0.41	6	40	2.5	18401	Import volume = **7398** cubic yards
0	Rubber Tired Dozers	247	0.4	0	0	0.0	0	
1	Water Truck	165	0.37	5	45	2.3	13736	
2	Tractors/Loaders/Backhoes	97	0.37	7	75	5.5	37685	
0	*Other Equipment?* Scrapers	423	0.48	0	0	0.0	0	
	Trenching/Foundation - 72 work days	**Start Date:**	**12/2/2024**	**Total phase:**	**72**			
		End Date:	**3/2/2025**					
2	Tractor/Loader/Backhoe	97	0.37	6	12	1.0	5168	
1	Excavators	158	0.38	4	24	1.3	5764	
	Other Equipment?							
	Building - Exterior - 144 work days	**Start Date:**	**1/1/2025**	**Total phase:**	**144**			**Cement Trucks 350 Total Round-Trips**
		End Date:	**6/30/2025**					house slabs = 42,800 sf concrete, sidewalks =
0	Cranes	231	0.29	0	0	0.0	0	Electric? (Y/N) _No__ Otherwise assumed diesel
1	Forklifts	89	0.2	6	144	6.0	15379	Liquid Propane (LPG)? (Y/N) No___ Otherwise Assumed diesel
0	Generator Sets	84	0.74	0	0	0.0	0	Or temporary line power? (Y/N) _Yes__
2	Tractors/Loaders/Backhoes	97	0.37	6	24	1.0	10336	
0	Welders	46	0.45	0	0	0.0	0	
	Other Equipment?							
	Building - Int./Arch - 144 work days	**Start Date:**	**7/1/2025**	**Total phase:**	**144**			
		End Date:	**12/28/2025**					
2	Air Compressors	78	0.48	6	144	6.0	64696	
0	Aerial Lift	62	0.31	0	0	0.0	0	
	Other Equipment?							
	Paving - 2 days	**Start Date:**	**2/7/2025**	**Total phase:**	**2**			
		End Date:	**2/10/2025**					
0	Cement and Mortar Mixers	9	0.56	0	0	0.0	0	
1	Pavers	130	0.42	8	2	8.0	874	**Asphalt 300 cubic yards or 30 round trips**
0	Paving Equipment	132	0.36	0	0	0.0	0	
1	Rollers	80	0.38	8	2	8.0	486	
0	Tractors/Loaders/Backhoes	97	0.37			0.0	0	
	Other Equipment?							
								AC roadway = 27,606sf
	Additional Phases	**Start Date:**		**Total phase:**				driveways 8,700sf
		Start Date:						sidewalks 7,405 sf
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	
						#DIV/0!	0	

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs

It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate

Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

			Traffic Consultant Trip Gen			CalEEMod Default		
Land Use		Size	Daily Trips	New Trips	Weekday Trip Gen	Weekday	Sat	Sun
Single Family Housing	DU	25	236	236	***9.44***	9.44	9.54	8.55
						Rev	***9.54***	***8.55***
Condo/Townhuse	DU	12	101	81	***6.75***	7.32	8.14	6.28
Based Vehicle Mode Share		6%	*-20*			*Rev*	***7.51***	***5.79***
			Total	317				
Existing								
Strip Mall	ksf	43.2	385	385	***8.91***	44.31999969	42.04	20.43
						Rev	***8.45***	***4.11***

Project Trip Generation Estimates for 3315 Sierra Road Residential Project

Land Use	Size	Daily Rate	Daily Trips	AM Peak Hour Pk-Hr Rate	AM In	AM Out	AM Total	PM Peak Hour Pk-Hr Rate	PM In	PM Out	PM Total
Proposed Uses											
Single-Family Detached Housing [1]	25 DU	9.43	236	0.70	5	13	18	0.94	15	9	24
Accessory Dwelling Unit (ADU) [2]	15 DU	6.74	101	0.40	1	5	6	0.51	5	3	8
Location-Based Vehicle Mode Share (6%) [3]			*(20)*		*0*	*(1)*	*(1)*		*(1)*	*(1)*	*(2)*
Project Trips:			**317**		**6**	**17**	**23**		**19**	**11**	**30**
Existing Uses (To Be Removed)											
Commercial Building [4]			*(385)*		*(11)*	*(8)*	*(19)*		*(29)*	*(29)*	*(58)*
Net New Trips:			**-68**		**-5**	**9**	**4**		**-10**	**-18**	**-28**

23-046 3315 Sierra Road, San Jose BMPs T4i 2026 Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	23-046 3315 Sierra Road, San Jose BMPs T4i 2026
Construction Start Date	9/2/2024
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.40
Precipitation (days)	1.60
Location	3315 Sierra Rd, San Jose, CA 95132, USA
County	Santa Clara
City	San Jose
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1991
EDFZ	1
Electric Utility	San Jose Clean Energy
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Single Family Housing	25.0	Dwelling Unit	2.71	118,353	292,821	—	75.0	—
Condo/Townhouse	12.0	Dwelling Unit	0.00	12,720	0.00	—	36.0	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	12.2	5.27	0.17	1.50	1.67	0.15	0.27	0.43	2,134
Mit.	12.0	5.63	0.08	1.50	1.58	0.07	0.27	0.34	2,134
% Reduced	2%	-7%	53%	—	5%	54%	—	19%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	12.2	7.80	0.23	68.3	68.5	0.20	6.91	7.10	4,168
Mit.	12.0	7.71	0.10	68.3	68.4	0.08	6.91	6.97	4,168
% Reduced	2%	1%	56%	—	< 0.5%	59%	—	2%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	5.28	1.86	0.06	9.71	9.75	0.05	0.99	1.03	686
Mit.	5.14	2.00	0.04	9.71	9.72	0.03	0.99	1.00	686
% Reduced	3%	-7%	39%	—	< 0.5%	39%	—	3%	—
Annual (Max)	—	—	—	—	—	—	—	—	—

Unmit.	0.96	0.34	0.01	1.77	1.78	0.01	0.18	0.19	114
Mit.	0.94	0.37	0.01	1.77	1.77	0.01	0.18	0.18	114
% Reduced	3%	-7%	39%	—	< 0.5%	39%	—	3%	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2024	0.47	5.27	0.17	1.50	1.67	0.15	0.27	0.43	2,134
2025	12.2	1.77	0.05	0.26	0.31	0.05	0.07	0.11	819
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2024	0.46	5.35	0.18	68.0	68.2	0.16	6.85	7.01	2,123
2025	12.2	7.80	0.23	68.3	68.5	0.20	6.91	7.10	4,168
Average Daily	—	—	—	—	—	—	—	—	—
2024	0.11	1.31	0.05	9.71	9.75	0.04	0.99	1.03	530
2025	5.28	1.86	0.06	6.02	6.08	0.05	0.63	0.68	686
Annual	—	—	—	—	—	—	—	—	—
2024	0.02	0.24	0.01	1.77	1.78	0.01	0.18	0.19	87.7
2025	0.96	0.34	0.01	1.10	1.11	0.01	0.11	0.12	114

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2024	0.19	5.63	0.08	1.50	1.58	0.07	0.27	0.34	2,134

2025	12.0	2.15	0.06	0.26	0.28	0.06	0.07	0.08	819
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2024	0.19	5.71	0.08	68.0	68.1	0.07	6.85	6.89	2,123
2025	12.0	7.71	0.10	68.3	68.4	0.08	6.91	6.97	4,168
Average Daily	—	—	—	—	—	—	—	—	—
2024	0.05	1.31	0.02	9.71	9.72	0.01	0.99	1.00	530
2025	5.14	2.00	0.04	6.02	6.06	0.03	0.63	0.66	686
Annual	—	—	—	—	—	—	—	—	—
2024	0.01	0.24	< 0.005	1.77	1.77	< 0.005	0.18	0.18	87.7
2025	0.94	0.37	0.01	1.10	1.11	0.01	0.11	0.12	114

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.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	4.56	0.81	0.01	2.06	2.07	0.01	0.52	0.53	2,655
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	4.33	0.93	0.01	2.06	2.07	0.01	0.52	0.53	2,511
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	4.36	0.84	0.01	1.96	1.98	0.01	0.50	0.51	2,438
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.80	0.15	< 0.005	0.36	0.36	< 0.005	0.09	0.09	404

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile	1.07	0.79	0.01	2.06	2.07	0.01	0.52	0.53	2,257
Area	3.50	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.63
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	319
Water	—	—	—	—	—	—	—	—	18.6
Waste	—	—	—	—	—	—	—	—	53.7
Refrig.	—	—	—	—	—	—	—	—	0.94
Total	4.56	0.81	0.01	2.06	2.07	0.01	0.52	0.53	2,655
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile	1.02	0.93	0.01	2.06	2.07	0.01	0.52	0.53	2,118
Area	3.31	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	319
Water	—	—	—	—	—	—	—	—	18.6
Waste	—	—	—	—	—	—	—	—	53.7
Refrig.	—	—	—	—	—	—	—	—	0.94
Total	4.33	0.93	0.01	2.06	2.07	0.01	0.52	0.53	2,511
Average Daily	—	—	—	—	—	—	—	—	—
Mobile	0.96	0.83	0.01	1.96	1.97	0.01	0.50	0.51	2,042
Area	3.40	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.78
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	319
Water	—	—	—	—	—	—	—	—	18.6
Waste	—	—	—	—	—	—	—	—	53.7
Refrig.	—	—	—	—	—	—	—	—	0.94
Total	4.36	0.84	0.01	1.96	1.98	0.01	0.50	0.51	2,438
Annual	—	—	—	—	—	—	—	—	—
Mobile	0.18	0.15	< 0.005	0.36	0.36	< 0.005	0.09	0.09	338

Area	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.46
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	52.9
Water	—	—	—	—	—	—	—	—	3.08
Waste	—	—	—	—	—	—	—	—	8.89
Refrig.	—	—	—	—	—	—	—	—	0.16
Total	0.80	0.15	< 0.005	0.36	0.36	< 0.005	0.09	0.09	404

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile	1.07	0.79	0.01	2.06	2.07	0.01	0.52	0.53	2,257
Area	3.50	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.63
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	319
Water	—	—	—	—	—	—	—	—	18.6
Waste	—	—	—	—	—	—	—	—	53.7
Refrig.	—	—	—	—	—	—	—	—	0.94
Total	4.56	0.81	0.01	2.06	2.07	0.01	0.52	0.53	2,655
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile	1.02	0.93	0.01	2.06	2.07	0.01	0.52	0.53	2,118
Area	3.31	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	319
Water	—	—	—	—	—	—	—	—	18.6
Waste	—	—	—	—	—	—	—	—	53.7
Refrig.	—	—	—	—	—	—	—	—	0.94
Total	4.33	0.93	0.01	2.06	2.07	0.01	0.52	0.53	2,511

Average Daily	—	—	—	—	—	—	—	—	—
Mobile	0.96	0.83	0.01	1.96	1.97	0.01	0.50	0.51	2,042
Area	3.40	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.78
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	319
Water	—	—	—	—	—	—	—	—	18.6
Waste	—	—	—	—	—	—	—	—	53.7
Refrig.	—	—	—	—	—	—	—	—	0.94
Total	4.36	0.84	0.01	1.96	1.98	0.01	0.50	0.51	2,438
Annual	—	—	—	—	—	—	—	—	—
Mobile	0.18	0.15	< 0.005	0.36	0.36	< 0.005	0.09	0.09	338
Area	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.46
Energy	0.00	0.00	0.00	—	0.00	0.00	—	0.00	52.9
Water	—	—	—	—	—	—	—	—	3.08
Waste	—	—	—	—	—	—	—	—	8.89
Refrig.	—	—	—	—	—	—	—	—	0.16
Total	0.80	0.15	< 0.005	0.36	0.36	< 0.005	0.09	0.09	404

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40	3.77	0.15	—	0.15	0.14	—	0.14	813
Demolition	—	—	—	1.10	1.10	—	0.17	0.17	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40	3.77	0.15	—	0.15	0.14	—	0.14	813
Demolition	—	—	—	1.10	1.10	—	0.17	0.17	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.41	0.02	—	0.02	0.02	—	0.02	89.0
Demolition	—	—	—	0.12	0.12	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	< 0.005	—	< 0.005	< 0.005	—	< 0.005	14.7
Demolition	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.00	0.10	0.10	0.00	0.02	0.02	111
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.46	0.02	0.29	0.31	0.01	0.08	0.09	1,210
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.00	0.10	0.10	0.00	0.02	0.02	103
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.54	0.02	0.29	0.31	0.01	0.08	0.09	1,208
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	11.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	0.17	< 0.005	0.03	0.03	< 0.005	0.01	0.01	132
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	21.9

3.2. Demolition (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	4.13	0.06	—	0.06	0.06	—	0.06	813
Demolition	—	—	—	1.10	1.10	—	0.17	0.17	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	4.13	0.06	—	0.06	0.06	—	0.06	813
Demolition	—	—	—	1.10	1.10	—	0.17	0.17	—
Onsite truck	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	0.45	0.01	—	0.01	0.01	—	0.01	89.0
Demolition	—	—	—	0.12	0.12	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.08	< 0.005	—	< 0.005	< 0.005	—	< 0.005	14.7

Demolition	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.00	0.10	0.10	0.00	0.02	0.02	111
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.46	0.02	0.29	0.31	0.01	0.08	0.09	1,210
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.00	0.10	0.10	0.00	0.02	0.02	103
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.54	0.02	0.29	0.31	0.01	0.08	0.09	1,208
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	11.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.17	< 0.005	0.03	0.03	< 0.005	0.01	0.01	132
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	21.9

3.3. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.10	1.05	0.05	—	0.05	0.04	—	0.04	255
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	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	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	9.08
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.50
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	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	0.01	0.01	0.00	0.02	0.02	0.00	< 0.005	< 0.005	20.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.12

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Site Preparation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	1.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	255
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	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	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	9.08
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.50
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	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	0.01	0.01	0.00	0.02	0.02	0.00	< 0.005	< 0.005	20.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	3.12	0.15	—	0.15	0.13	—	0.13	646
Dust From Material Movement	—	—	—	0.07	0.07	—	0.01	0.01	—
Onsite truck	< 0.005	0.33	< 0.005	67.6	67.6	< 0.005	6.74	6.74	283
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.44	0.02	—	0.02	0.02	—	0.02	91.1

Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	0.05	< 0.005	9.48	9.48	< 0.005	0.95	0.95	39.8
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	< 0.005	—	< 0.005	< 0.005	—	< 0.005	15.1
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	0.01	< 0.005	1.73	1.73	< 0.005	0.17	0.17	6.60
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.00	0.08	0.08	0.00	0.02	0.02	82.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.21	0.02	0.23	0.25	0.01	0.06	0.07	947
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	11.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.17	< 0.005	0.03	0.03	< 0.005	0.01	0.01	133
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.94
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	22.1

3.6. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	2.86	0.03	—	0.03	0.02	—	0.02	646
Dust From Material Movement	—	—	—	0.07	0.07	—	0.01	0.01	—
Onsite truck	< 0.005	0.33	< 0.005	67.6	67.6	< 0.005	6.74	6.74	283
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.40	< 0.005	—	< 0.005	< 0.005	—	< 0.005	91.1
Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	0.05	< 0.005	9.48	9.48	< 0.005	0.95	0.95	39.8
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	15.1
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	0.01	< 0.005	1.73	1.73	< 0.005	0.17	0.17	6.60
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.00	0.08	0.08	0.00	0.02	0.02	82.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.21	0.02	0.23	0.25	0.01	0.06	0.07	947
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	11.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	0.17	< 0.005	0.03	0.03	< 0.005	0.01	0.01	133
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.94
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	22.1

3.7. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	2.87	0.12	—	0.12	0.11	—	0.11	647
Dust From Material Movement	—	—	—	0.07	0.07	—	0.01	0.01	—
Onsite truck	< 0.005	0.31	< 0.005	67.6	67.6	< 0.005	6.74	6.74	277
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.25	0.01	—	0.01	0.01	—	0.01	56.2
Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	0.03	< 0.005	5.85	5.85	< 0.005	0.58	0.58	24.1
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	9.30
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	1.07	1.07	< 0.005	0.11	0.11	3.99

Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.00	0.08	0.08	0.00	0.02	0.02	80.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.16	0.02	0.23	0.25	0.01	0.06	0.07	928
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.07
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.10	< 0.005	0.02	0.02	< 0.005	0.01	0.01	80.7
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13.4

3.8. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	2.86	0.03	—	0.03	0.02	—	0.02	647
Dust From Material Movement	—	—	—	0.07	0.07	—	0.01	0.01	—
Onsite truck	< 0.005	0.31	< 0.005	67.6	67.6	< 0.005	6.74	6.74	277
Average Daily	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.25	< 0.005	—	< 0.005	< 0.005	—	< 0.005	56.2
Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	0.03	< 0.005	5.85	5.85	< 0.005	0.58	0.58	24.1
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	9.30
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	1.07	1.07	< 0.005	0.11	0.11	3.99
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.00	0.08	0.08	0.00	0.02	0.02	80.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.16	0.02	0.23	0.25	0.01	0.06	0.07	928
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.07
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.10	< 0.005	0.02	0.02	< 0.005	0.01	0.01	80.7
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13.4

3.9. 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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.83	0.04	—	0.04	0.04	—	0.04	188
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.83	0.04	—	0.04	0.04	—	0.04	188
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.35	0.02	—	0.02	0.02	—	0.02	79.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.06	0.04	0.00	0.15	0.15	0.00	0.03	0.03	154
Vendor	< 0.005	0.14	< 0.005	0.03	0.03	< 0.005	0.01	0.01	112
Hauling	0.01	0.44	0.01	0.09	0.10	< 0.005	0.02	0.03	366
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.00	0.15	0.15	0.00	0.03	0.03	142
Vendor	< 0.005	0.14	< 0.005	0.03	0.03	< 0.005	0.01	0.01	112
Hauling	0.01	0.46	0.01	0.09	0.10	< 0.005	0.02	0.03	365
Average Daily	—	—	—	—	—	—	—	—	—

Worker	0.02	0.02	0.00	0.06	0.06	0.00	0.01	0.01	61.0
Vendor	< 0.005	0.06	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	47.4
Hauling	< 0.005	0.19	< 0.005	0.04	0.04	< 0.005	0.01	0.01	155
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.1
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.84
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	25.7

3.10. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.76	< 0.005	—	< 0.005	< 0.005	—	< 0.005	188
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.76	< 0.005	—	< 0.005	< 0.005	—	< 0.005	188
Onsite truck	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	0.32	< 0.005	—	< 0.005	< 0.005	—	< 0.005	79.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.06	0.04	0.00	0.15	0.15	0.00	0.03	0.03	154
Vendor	< 0.005	0.14	< 0.005	0.03	0.03	< 0.005	0.01	0.01	112
Hauling	0.01	0.44	0.01	0.09	0.10	< 0.005	0.02	0.03	366
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.00	0.15	0.15	0.00	0.03	0.03	142
Vendor	< 0.005	0.14	< 0.005	0.03	0.03	< 0.005	0.01	0.01	112
Hauling	0.01	0.46	0.01	0.09	0.10	< 0.005	0.02	0.03	365
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.00	0.06	0.06	0.00	0.01	0.01	61.0
Vendor	< 0.005	0.06	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	47.4
Hauling	< 0.005	0.19	< 0.005	0.04	0.04	< 0.005	0.01	0.01	155
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.1
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.84
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	25.7

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	2.47	0.12	—	0.12	0.11	—	0.11	459

Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	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	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.77
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	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	—	< 0.005	< 0.005	—	< 0.005	0.62
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	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	0.00	0.04	0.04	0.00	0.01	0.01	40.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	3.39	0.05	0.67	0.72	0.03	0.18	0.21	2,706
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.33
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	22.3
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.68

3.12. Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	2.39	0.04	—	0.04	0.03	—	0.03	459
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	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	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.77
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	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	—	< 0.005	< 0.005	—	< 0.005	0.62
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	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	0.00	0.04	0.04	0.00	0.01	0.01	40.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	3.39	0.05	0.67	0.72	0.03	0.18	0.21	2,706
Average Daily	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.33
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	22.3
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.68

3.13. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	1.76	0.05	—	0.05	0.05	—	0.05	268
Architectural Coatings	11.9	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	1.76	0.05	—	0.05	0.05	—	0.05	268
Architectural Coatings	11.9	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.75	0.02	—	0.02	0.02	—	0.02	114
Architectural Coatings	5.06	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.14	< 0.005	—	< 0.005	< 0.005	—	< 0.005	18.8
Architectural Coatings	0.92	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.03	0.03	0.00	0.01	0.01	30.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.03	0.03	0.00	0.01	0.01	28.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	0.01	0.01	0.00	< 0.005	< 0.005	12.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Architectural Coating (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	2.14	0.06	—	0.06	0.06	—	0.06	268
Architectural Coatings	11.9	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	2.14	0.06	—	0.06	0.06	—	0.06	268
Architectural Coatings	11.9	—	—	—	—	—	—	—	—
Onsite truck	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	0.91	0.03	—	0.03	0.02	—	0.02	114
Architectural Coatings	5.06	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.17	< 0.005	—	< 0.005	< 0.005	—	< 0.005	18.8
Architectural Coatings	0.92	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.03	0.03	0.00	0.01	0.01	30.7

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.00	0.03	0.03	0.00	0.01	0.01	28.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	0.01	0.01	0.00	< 0.005	< 0.005	12.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Trenching (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.44	0.02	—	0.02	0.02	—	0.02	96.0
Onsite truck	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	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.76

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.12
Onsite truck	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	0.00	0.06	0.06	0.00	0.01	0.01	61.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Trenching (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.47	0.01	—	0.01	0.01	—	0.01	96.0
Onsite truck	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	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.76
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.12
Onsite truck	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	0.00	0.06	0.06	0.00	0.01	0.01	61.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Trenching (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.41	0.01	—	0.01	0.01	—	0.01	96.0
Onsite truck	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	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.28
Onsite truck	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	0.00	0.06	0.06	0.00	0.01	0.01	60.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.75
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.45

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Trenching (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.47	0.01	—	0.01	0.01	—	0.01	96.0
Onsite truck	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	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.28
Onsite truck	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	0.00	0.06	0.06	0.00	0.01	0.01	60.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.75
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.45
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	0.77	0.57	0.01	1.49	1.50	0.01	0.38	0.39	1,638
Condo/Townhouse	0.29	0.22	< 0.005	0.56	0.57	< 0.005	0.14	0.15	619
Total	1.07	0.79	0.01	2.06	2.07	0.01	0.52	0.53	2,257
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	0.74	0.67	0.01	1.49	1.50	0.01	0.38	0.39	1,537
Condo/Townhouse	0.28	0.25	< 0.005	0.56	0.57	< 0.005	0.14	0.15	581
Total	1.02	0.93	0.01	2.06	2.07	0.01	0.52	0.53	2,118
Annual	—	—	—	—	—	—	—	—	—
Single Family Housing	0.13	0.11	< 0.005	0.27	0.27	< 0.005	0.07	0.07	251

Condo/Townhouse	0.05	0.04	< 0.005	0.09	0.09	< 0.005	0.02	0.02	86.9
Total	0.18	0.15	< 0.005	0.36	0.36	< 0.005	0.09	0.09	338

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	0.77	0.57	0.01	1.49	1.50	0.01	0.38	0.39	1,638
Condo/Townhouse	0.29	0.22	< 0.005	0.56	0.57	< 0.005	0.14	0.15	619
Total	1.07	0.79	0.01	2.06	2.07	0.01	0.52	0.53	2,257
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	0.74	0.67	0.01	1.49	1.50	0.01	0.38	0.39	1,537
Condo/Townhouse	0.28	0.25	< 0.005	0.56	0.57	< 0.005	0.14	0.15	581
Total	1.02	0.93	0.01	2.06	2.07	0.01	0.52	0.53	2,118
Annual	—	—	—	—	—	—	—	—	—
Single Family Housing	0.13	0.11	< 0.005	0.27	0.27	< 0.005	0.07	0.07	251
Condo/Townhouse	0.05	0.04	< 0.005	0.09	0.09	< 0.005	0.02	0.02	86.9
Total	0.18	0.15	< 0.005	0.36	0.36	< 0.005	0.09	0.09	338

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	243
Condo/Townhouse	—	—	—	—	—	—	—	—	76.0
Total	—	—	—	—	—	—	—	—	319
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	243
Condo/Townhouse	—	—	—	—	—	—	—	—	76.0
Total	—	—	—	—	—	—	—	—	319
Annual	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	40.3
Condo/Townhouse	—	—	—	—	—	—	—	—	12.6
Total	—	—	—	—	—	—	—	—	52.9

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	243
Condo/Townhouse	—	—	—	—	—	—	—	—	76.0
Total	—	—	—	—	—	—	—	—	319
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	243
Condo/Townhouse	—	—	—	—	—	—	—	—	76.0

Total	—	—	—	—	—	—	—	—	319
Annual	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	40.3
Condo/Townhouse	—	—	—	—	—	—	—	—	12.6
Total	—	—	—	—	—	—	—	—	52.9

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Condo/Townhouse	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Condo/Townhouse	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Condo/Townhouse	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Condo/Townhouse	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Condo/Townhouse	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Single Family Housing	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Condo/Townhouse	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Total	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	2.80	—	—	—	—	—	—	—	—
Architectural Coatings	0.51	—	—	—	—	—	—	—	—

Landscape Equipment	0.19	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.63
Total	3.50	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.63
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	2.80	—	—	—	—	—	—	—	—
Architectural Coatings	0.51	—	—	—	—	—	—	—	—
Total	3.31	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	0.51	—	—	—	—	—	—	—	—
Architectural Coatings	0.09	—	—	—	—	—	—	—	—
Landscape Equipment	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.46
Total	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.46

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	2.80	—	—	—	—	—	—	—	—
Architectural Coatings	0.51	—	—	—	—	—	—	—	—

Landscape Equipment	0.19	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.63
Total	3.50	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.63
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	2.80	—	—	—	—	—	—	—	—
Architectural Coatings	0.51	—	—	—	—	—	—	—	—
Total	3.31	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00
Consumer Products	0.51	—	—	—	—	—	—	—	—
Architectural Coatings	0.09	—	—	—	—	—	—	—	—
Landscape Equipment	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.46
Total	0.62	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.46

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	15.6
Condo/Townhouse	—	—	—	—	—	—	—	—	3.01

Total	—	—	—	—	—	—	—	—	18.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	15.6
Condo/Townhouse	—	—	—	—	—	—	—	—	3.01
Total	—	—	—	—	—	—	—	—	18.6
Annual	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	2.58
Condo/Townhouse	—	—	—	—	—	—	—	—	0.50
Total	—	—	—	—	—	—	—	—	3.08

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	15.6
Condo/Townhouse	—	—	—	—	—	—	—	—	3.01
Total	—	—	—	—	—	—	—	—	18.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	15.6
Condo/Townhouse	—	—	—	—	—	—	—	—	3.01
Total	—	—	—	—	—	—	—	—	18.6
Annual	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	2.58

Condo/Townhouse	—	—	—	—	—	—	—	—	0.50
Total	—	—	—	—	—	—	—	—	3.08

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	36.9
Condo/Townhouse	—	—	—	—	—	—	—	—	16.8
Total	—	—	—	—	—	—	—	—	53.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	36.9
Condo/Townhouse	—	—	—	—	—	—	—	—	16.8
Total	—	—	—	—	—	—	—	—	53.7
Annual	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	6.11
Condo/Townhouse	—	—	—	—	—	—	—	—	2.78
Total	—	—	—	—	—	—	—	—	8.89

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	36.9
Condo/Townhouse	—	—	—	—	—	—	—	—	16.8
Total	—	—	—	—	—	—	—	—	53.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	36.9
Condo/Townhouse	—	—	—	—	—	—	—	—	16.8
Total	—	—	—	—	—	—	—	—	53.7
Annual	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	6.11
Condo/Townhouse	—	—	—	—	—	—	—	—	2.78
Total	—	—	—	—	—	—	—	—	8.89

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	0.85
Condo/Townhouse	—	—	—	—	—	—	—	—	0.09
Total	—	—	—	—	—	—	—	—	0.94
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	—	0.85
Condo/Townhouse	—	—	—	—	—	—	—	—	0.09
Total	—	—	—	—	—	—	—	—	0.94
Annual	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	0.14
Condo/Townhouse	—	—	—	—	—	—	—	—	0.02
Total	—	—	—	—	—	—	—	—	0.16

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	0.85
Condo/Townhouse	—	—	—	—	—	—	—	—	0.09
Total	—	—	—	—	—	—	—	—	0.94
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	0.85
Condo/Townhouse	—	—	—	—	—	—	—	—	0.09
Total	—	—	—	—	—	—	—	—	0.94
Annual	—	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	—	0.14
Condo/Townhouse	—	—	—	—	—	—	—	—	0.02
Total	—	—	—	—	—	—	—	—	0.16

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	9/2/2024	10/17/2024	6.00	40.0	—
Site Preparation	Site Preparation	10/18/2024	11/1/2024	6.00	13.0	—
Grading	Grading	11/2/2024	2/6/2025	6.00	83.0	—
Building Construction	Building Construction	1/1/2025	6/30/2025	6.00	155	—
Paving	Paving	2/7/2025	2/10/2025	6.00	3.00	—
Architectural Coating	Architectural Coating	7/1/2025	12/28/2025	6.00	155	—
Trenching	Trenching	12/2/2024	3/2/2025	6.00	78.0	—

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	0.30	33.0	0.73

Demolition	Tractors/Loaders/Backh	Diesel	Average	2.00	8.00	84.0	0.37
Demolition	Excavators	Diesel	Average	2.00	6.20	36.0	0.38
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	2.50	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	5.50	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	3.80	36.0	0.38
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	1.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	2.00	6.00	37.0	0.48
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	2.00	1.00	84.0	0.37
Trenching	Excavators	Diesel	Average	1.00	1.30	36.0	0.38

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	0.30	33.0	0.73
Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	2.00	8.00	84.0	0.37
Demolition	Excavators	Diesel	Tier 4 Interim	2.00	6.20	36.0	0.38
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	7.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Interim	1.00	2.50	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	2.00	5.50	84.0	0.37

Grading	Excavators	Diesel	Tier 4 Interim	1.00	3.80	36.0	0.38
Building Construction	Forklifts	Diesel	Tier 4 Interim	1.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	2.00	1.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Interim	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Tier 4 Interim	1.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	2.00	6.00	37.0	0.48
Trenching	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	2.00	1.00	84.0	0.37
Trenching	Excavators	Diesel	Tier 4 Interim	1.00	1.30	36.0	0.38

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	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	15.8	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	2.50	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	0.00	8.40	HHDT,MHDT

Grading	Hauling	12.3	20.0	HHDT
Grading	Onsite truck	1.00	75.0	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	17.6	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	3.96	8.40	HHDT,MHDT
Building Construction	Hauling	4.86	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	5.00	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	36.0	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	3.53	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	7.50	11.7	LDA,LDT1,LDT2
Trenching	Vendor	—	8.40	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	11.7	LDA,LDT1,LDT2

Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	15.8	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	2.50	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	0.00	8.40	HHDT,MHDT
Grading	Hauling	12.3	20.0	HHDT
Grading	Onsite truck	1.00	75.0	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	17.6	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	3.96	8.40	HHDT,MHDT
Building Construction	Hauling	4.86	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	5.00	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	36.0	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	3.53	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT

Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	7.50	11.7	LDA,LDT1,LDT2
Trenching	Vendor	—	8.40	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	265,423	88,474	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	43,200	—
Site Preparation	—	—	0.00	0.00	—
Grading	7,398	800	13.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.28

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
Single Family Housing	0.28	0%
Condo/Townhouse	—	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	809	0.03	< 0.005
2024	0.00	809	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
Single Family Housing	236	238	214	85,110	2,094	2,116	1,896	754,995
Condo/Townhouse	81.0	90.1	69.5	29,440	719	799	616	261,155

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Single Family Housing	236	238	214	85,110	2,094	2,116	1,896	754,995
Condo/Townhouse	81.0	90.1	69.5	29,440	719	799	616	261,155

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	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0
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)
265422.825	88,474	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	493,279	178	0.0330	0.0040	0.00
Condo/Townhouse	154,072	178	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Single Family Housing	493,279	178	0.0330	0.0040	0.00
Condo/Townhouse	154,072	178	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)
Single Family Housing	906,660	3,826,022
Condo/Townhouse	435,197	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Single Family Housing	906,660	3,826,022
Condo/Townhouse	435,197	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	19.6	—
Condo/Townhouse	8.90	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	19.6	—
Condo/Townhouse	8.90	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	13.3	annual days of extreme heat
Extreme Precipitation	2.70	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	14.4	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	22.2
AQ-PM	13.0
AQ-DPM	2.55
Drinking Water	31.3
Lead Risk Housing	20.1
Pesticides	0.00
Toxic Releases	27.6
Traffic	9.13
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	0.00
Haz Waste Facilities/Generators	16.6
Impaired Water Bodies	0.00
Solid Waste	0.00

Sensitive Population	—
Asthma	26.4
Cardio-vascular	35.7
Low Birth Weights	53.5
Socioeconomic Factor Indicators	—
Education	51.0
Housing	37.5
Linguistic	74.8
Poverty	30.5
Unemployment	66.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	83.11305017
Employed	80.26433979
Median HI	93.27601694
Education	—
Bachelor's or higher	74.16912614
High school enrollment	100
Preschool enrollment	95.7141024
Transportation	—
Auto Access	42.10188631
Active commuting	30.20659566
Social	—
2-parent households	89.50340049

Voting	78.94264083
Neighborhood	—
Alcohol availability	68.67701784
Park access	25.8052098
Retail density	16.47632491
Supermarket access	2.399589375
Tree canopy	69.35711536
Housing	—
Homeownership	90.85076351
Housing habitability	81.71435904
Low-inc homeowner severe housing cost burden	69.97305274
Low-inc renter severe housing cost burden	31.52829462
Uncrowded housing	90.74810728
Health Outcomes	—
Insured adults	97.93404337
Arthritis	39.1
Asthma ER Admissions	74.9
High Blood Pressure	16.4
Cancer (excluding skin)	24.3
Asthma	92.9
Coronary Heart Disease	47.4
Chronic Obstructive Pulmonary Disease	76.7
Diagnosed Diabetes	47.0
Life Expectancy at Birth	94.0
Cognitively Disabled	60.3
Physically Disabled	91.7
Heart Attack ER Admissions	57.2

Mental Health Not Good	91.8
Chronic Kidney Disease	45.1
Obesity	93.1
Pedestrian Injuries	54.6
Physical Health Not Good	78.6
Stroke	58.2
Health Risk Behaviors	—
Binge Drinking	95.9
Current Smoker	94.0
No Leisure Time for Physical Activity	65.2
Climate Change Exposures	—
Wildfire Risk	0.3
SLR Inundation Area	0.0
Children	90.2
Elderly	18.2
English Speaking	27.9
Foreign-born	67.0
Outdoor Workers	80.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	83.8
Traffic Density	5.1
Traffic Access	64.1
Other Indices	—
Hardship	16.3
Other Decision Support	—
2016 Voting	81.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	7.00
Healthy Places Index Score for Project Location (b)	90.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	San Jose Clean Energy 2020 rate = 178 lb/MWh.
Land Use	Total lot acreage, overall square footage, and number of dwelling units provided from filled out construction worksheet. Default square footage used for ADU's and then subtracted from provided square footage to get square footage of single family homes.
Construction: Construction Phases	Provided start and end dates by project applicant.
Construction: Off-Road Equipment	Construction equipment quantity and hours provided by project applicant.
Construction: Trips and VMT	Demolition = 750 tons of pavement demo (3.33 trips/day), Grading = 1 water truck 5 hours a day, Building Const = 350 concrete truck round trips (4.86 trips/day), and Paving = 300 cubic yards asphalt (36 trips/day).

Construction: On-Road Fugitive Dust	Air District BMPs - 15 MPH, required by San Jose as Standard Permit Condition.
Operations: Vehicle Data	Provided trip gen with reduction adjustments.
Operations: Hearths	No hearths.
Operations: Energy Use	San Jose REACH Code - no natural gas. Convert natural gas to electricity.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.

23-046 3315 Sierra Rd, San Jose Existing Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	23-046 3315 Sierra Rd, San Jose Existing
Operational Year	2023
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.40
Precipitation (days)	1.60
Location	3315 Sierra Rd, San Jose, CA 95132, USA
County	Santa Clara
City	San Jose
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1991
EDFZ	1
Electric Utility	San Jose Clean Energy
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.19

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
Strip Mall	43.2	1000sqft	0.99	43,200	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	2.86	1.35	0.03	2.70	2.73	0.03	0.68	0.71	3,533
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	2.48	1.56	0.03	2.70	2.72	0.02	0.68	0.71	3,327
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	2.50	1.36	0.03	2.47	2.49	0.02	0.63	0.65	3,110
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.46	0.25	< 0.005	0.45	0.45	< 0.005	0.11	0.12	515

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Mobile	1.50	1.27	0.02	2.70	2.72	0.02	0.68	0.70	3,142
Area	1.36	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.75
Energy	< 0.005	0.07	0.01	—	0.01	0.01	—	0.01	261
Water	—	—	—	—	—	—	—	—	36.5

Waste	—	—	—	—	—	—	—	—	85.5
Refrig.	—	—	—	—	—	—	—	—	0.27
Total	2.86	1.35	0.03	2.70	2.73	0.03	0.68	0.71	3,533
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Mobile	1.43	1.50	0.02	2.70	2.72	0.02	0.68	0.70	2,944
Area	1.05	—	—	—	—	—	—	—	—
Energy	< 0.005	0.07	0.01	—	0.01	0.01	—	0.01	261
Water	—	—	—	—	—	—	—	—	36.5
Waste	—	—	—	—	—	—	—	—	85.5
Refrig.	—	—	—	—	—	—	—	—	0.27
Total	2.48	1.56	0.03	2.70	2.72	0.02	0.68	0.71	3,327
Average Daily	—	—	—	—	—	—	—	—	—
Mobile	1.29	1.29	0.02	2.47	2.49	0.02	0.63	0.64	2,723
Area	1.20	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.82
Energy	< 0.005	0.07	0.01	—	0.01	0.01	—	0.01	261
Water	—	—	—	—	—	—	—	—	36.5
Waste	—	—	—	—	—	—	—	—	85.5
Refrig.	—	—	—	—	—	—	—	—	0.27
Total	2.50	1.36	0.03	2.47	2.49	0.02	0.63	0.65	3,110
Annual	—	—	—	—	—	—	—	—	—
Mobile	0.24	0.24	< 0.005	0.45	0.45	< 0.005	0.11	0.12	451
Area	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.63
Energy	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	43.2
Water	—	—	—	—	—	—	—	—	6.05
Waste	—	—	—	—	—	—	—	—	14.2
Refrig.	—	—	—	—	—	—	—	—	0.04
Total	0.46	0.25	< 0.005	0.45	0.45	< 0.005	0.11	0.12	515

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	1.50	1.27	0.02	2.70	2.72	0.02	0.68	0.70	3,142
Total	1.50	1.27	0.02	2.70	2.72	0.02	0.68	0.70	3,142
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	1.43	1.50	0.02	2.70	2.72	0.02	0.68	0.70	2,944
Total	1.43	1.50	0.02	2.70	2.72	0.02	0.68	0.70	2,944
Annual	—	—	—	—	—	—	—	—	—
Strip Mall	0.24	0.24	< 0.005	0.45	0.45	< 0.005	0.11	0.12	451
Total	0.24	0.24	< 0.005	0.45	0.45	< 0.005	0.11	0.12	451

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	182
Total	—	—	—	—	—	—	—	—	182
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Strip Mall	—	—	—	—	—	—	—	—	182
Total	—	—	—	—	—	—	—	—	182
Annual	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	30.1
Total	—	—	—	—	—	—	—	—	30.1

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	< 0.005	0.07	0.01	—	0.01	0.01	—	0.01	79.1
Total	< 0.005	0.07	0.01	—	0.01	0.01	—	0.01	79.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	< 0.005	0.07	0.01	—	0.01	0.01	—	0.01	79.1
Total	< 0.005	0.07	0.01	—	0.01	0.01	—	0.01	79.1
Annual	—	—	—	—	—	—	—	—	—
Strip Mall	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.1
Total	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.1

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—

Consumer Products	0.92	—	—	—	—	—	—	—	—
Architectural Coatings	0.12	—	—	—	—	—	—	—	—
Landscape Equipment	0.31	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.75
Total	1.36	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.75
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Consumer Products	0.92	—	—	—	—	—	—	—	—
Architectural Coatings	0.12	—	—	—	—	—	—	—	—
Total	1.05	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Consumer Products	0.17	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—
Landscape Equipment	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.63
Total	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.63

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	36.5
Total	—	—	—	—	—	—	—	—	36.5

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	36.5
Total	—	—	—	—	—	—	—	—	36.5
Annual	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	6.05
Total	—	—	—	—	—	—	—	—	6.05

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	85.5
Total	—	—	—	—	—	—	—	—	85.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	85.5
Total	—	—	—	—	—	—	—	—	85.5
Annual	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	14.2
Total	—	—	—	—	—	—	—	—	14.2

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	0.27
Total	—	—	—	—	—	—	—	—	0.27
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	0.27
Total	—	—	—	—	—	—	—	—	0.27
Annual	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	0.04
Total	—	—	—	—	—	—	—	—	0.04

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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
Strip Mall	385	365	178	128,644	3,825	3,628	1,764	1,278,441

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

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)
0	0.00	64,800	21,600	—

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)
Strip Mall	369,143	178	0.0330	0.0040	246,178

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Strip Mall	3,199,933	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Strip Mall	45.4	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	13.3	annual days of extreme heat
Extreme Precipitation	2.70	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	14.4	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	22.2
AQ-PM	13.0
AQ-DPM	2.55

Drinking Water	31.3
Lead Risk Housing	20.1
Pesticides	0.00
Toxic Releases	27.6
Traffic	9.13
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	0.00
Haz Waste Facilities/Generators	16.6
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	26.4
Cardio-vascular	35.7
Low Birth Weights	53.5
Socioeconomic Factor Indicators	—
Education	51.0
Housing	37.5
Linguistic	74.8
Poverty	30.5
Unemployment	66.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	83.11305017

Employed	80.26433979
Median HI	93.27601694
Education	—
Bachelor's or higher	74.16912614
High school enrollment	100
Preschool enrollment	95.7141024
Transportation	—
Auto Access	42.10188631
Active commuting	30.20659566
Social	—
2-parent households	89.50340049
Voting	78.94264083
Neighborhood	—
Alcohol availability	68.67701784
Park access	25.8052098
Retail density	16.47632491
Supermarket access	2.399589375
Tree canopy	69.35711536
Housing	—
Homeownership	90.85076351
Housing habitability	81.71435904
Low-inc homeowner severe housing cost burden	69.97305274
Low-inc renter severe housing cost burden	31.52829462
Uncrowded housing	90.74810728
Health Outcomes	—
Insured adults	97.93404337
Arthritis	39.1

Asthma ER Admissions	74.9
High Blood Pressure	16.4
Cancer (excluding skin)	24.3
Asthma	92.9
Coronary Heart Disease	47.4
Chronic Obstructive Pulmonary Disease	76.7
Diagnosed Diabetes	47.0
Life Expectancy at Birth	94.0
Cognitively Disabled	60.3
Physically Disabled	91.7
Heart Attack ER Admissions	57.2
Mental Health Not Good	91.8
Chronic Kidney Disease	45.1
Obesity	93.1
Pedestrian Injuries	54.6
Physical Health Not Good	78.6
Stroke	58.2
Health Risk Behaviors	—
Binge Drinking	95.9
Current Smoker	94.0
No Leisure Time for Physical Activity	65.2
Climate Change Exposures	—
Wildfire Risk	0.3
SLR Inundation Area	0.0
Children	90.2
Elderly	18.2
English Speaking	27.9

Foreign-born	67.0
Outdoor Workers	80.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	83.8
Traffic Density	5.1
Traffic Access	64.1
Other Indices	—
Hardship	16.3
Other Decision Support	—
2016 Voting	81.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	7.00
Healthy Places Index Score for Project Location (b)	90.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	San Jose Clean Energy 2020 rate = 178 lb/MWh.
Operations: Vehicle Data	Provided existing trip gen.

23-046 3315 Sierra Road, San Jose BMPs T4i HRA Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	23-046 3315 Sierra Road, San Jose BMPs T4i HRA
Construction Start Date	9/2/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.40
Precipitation (days)	1.60
Location	3315 Sierra Rd, San Jose, CA 95132, USA
County	Santa Clara
City	San Jose
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1991
EDFZ	1
Electric Utility	San Jose Clean Energy
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.20

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	25.0	Dwelling Unit	2.71	118,353	292,821	—	75.0	—

Condo/Townhouse	12.0	Dwelling Unit	0.00	12,720	0.00	—	36.0	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Unmit.	12.2	4.04	0.15	1.12	1.27	0.14	0.17	0.31	877
Mit.	12.0	4.40	0.06	1.12	1.18	0.06	0.17	0.23	877
% Reduced	2%	-9%	59%	—	7%	59%	—	27%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Unmit.	12.2	4.49	0.18	1.12	1.27	0.17	0.17	0.31	1,026
Mit.	12.0	4.48	0.06	1.12	1.18	0.06	0.17	0.23	1,026
% Reduced	2%	< 0.5%	65%	—	7%	65%	—	27%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—
Unmit.	5.27	1.51	0.05	0.20	0.24	0.05	0.03	0.06	290
Mit.	5.13	1.65	0.03	0.20	0.21	0.03	0.03	0.04	290
% Reduced	3%	-9%	43%	—	12%	42%	—	42%	—
Annual (Max)	—	—	—	—	—	—	—	—	—
Unmit.	0.96	0.28	0.01	0.04	0.04	0.01	< 0.005	0.01	48.1

Mit.	0.94	0.30	0.01	0.04	0.04	0.01	< 0.005	0.01	48.1
% Reduced	3%	-9%	43%	—	12%	42%	—	42%	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2024	0.45	4.04	0.15	1.12	1.27	0.14	0.17	0.31	877
2025	12.2	1.77	0.05	0.01	0.06	0.05	< 0.005	0.05	270
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2024	0.44	4.05	0.16	1.12	1.27	0.15	0.17	0.31	878
2025	12.2	4.49	0.18	0.54	0.72	0.17	0.06	0.22	1,026
Average Daily	—	—	—	—	—	—	—	—	—
2024	0.11	0.98	0.04	0.20	0.24	0.04	0.03	0.06	211
2025	5.27	1.51	0.05	0.05	0.11	0.05	0.01	0.06	290
Annual	—	—	—	—	—	—	—	—	—
2024	0.02	0.18	0.01	0.04	0.04	0.01	< 0.005	0.01	34.9
2025	0.96	0.28	0.01	0.01	0.02	0.01	< 0.005	0.01	48.1

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—
2024	0.17	4.40	0.06	1.12	1.18	0.06	0.17	0.23	877
2025	12.0	2.14	0.06	0.01	0.06	0.06	< 0.005	0.06	270

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—
2024	0.17	4.41	0.06	1.12	1.18	0.06	0.17	0.23	878
2025	12.0	4.48	0.06	0.54	0.58	0.06	0.06	0.09	1,026
Average Daily	—	—	—	—	—	—	—	—	—
2024	0.04	0.99	0.01	0.20	0.21	0.01	0.03	0.04	211
2025	5.13	1.65	0.03	0.05	0.08	0.03	0.01	0.03	290
Annual	—	—	—	—	—	—	—	—	—
2024	0.01	0.18	< 0.005	0.04	0.04	< 0.005	< 0.005	0.01	34.9
2025	0.94	0.30	0.01	0.01	0.01	0.01	< 0.005	0.01	48.1

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40	3.77	0.15	—	0.15	0.14	—	0.14	813
Demolition	—	—	—	1.10	1.10	—	0.17	0.17	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40	3.77	0.15	—	0.15	0.14	—	0.14	813
Demolition	—	—	—	1.10	1.10	—	0.17	0.17	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.04	0.41	0.02	—	0.02	0.02	—	0.02	89.0
Demolition	—	—	—	0.12	0.12	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	< 0.005	—	< 0.005	< 0.005	—	< 0.005	14.7
Demolition	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—
Onsite truck	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	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	7.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.25	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	57.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	6.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.27	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	58.0
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.76
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.34
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.05

3.2. Demolition (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	4.13	0.06	—	0.06	0.06	—	0.06	813
Demolition	—	—	—	1.10	1.10	—	0.17	0.17	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	4.13	0.06	—	0.06	0.06	—	0.06	813
Demolition	—	—	—	1.10	1.10	—	0.17	0.17	—
Onsite truck	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	0.45	0.01	—	0.01	0.01	—	0.01	89.0
Demolition	—	—	—	0.12	0.12	—	0.02	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.08	< 0.005	—	< 0.005	< 0.005	—	< 0.005	14.7
Demolition	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—
Onsite truck	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	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	7.11

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.25	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	57.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.04	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	6.93
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.27	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	58.0
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.76
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.34
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.05

3.3. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	1.05	0.05	—	0.05	0.04	—	0.04	255
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	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	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	9.08
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.50
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	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	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Site Preparation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	1.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	255
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	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	0.04	< 0.005	—	< 0.005	< 0.005	—	< 0.005	9.08
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.50
Dust From Material Movement	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	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	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.33	3.12	0.15	—	0.15	0.13	—	0.13	646
Dust From Material Movement	—	—	—	0.07	0.07	—	0.01	0.01	—
Onsite truck	< 0.005	0.02	< 0.005	0.45	0.45	< 0.005	0.04	0.04	3.68
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.44	0.02	—	0.02	0.02	—	0.02	91.1
Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	0.52
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	< 0.005	—	< 0.005	< 0.005	—	< 0.005	15.1

Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	0.09
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	5.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.21	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	45.5
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.39
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.06

3.6. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	2.86	0.03	—	0.03	0.02	—	0.02	646

Dust From Material Movement	—	—	—	0.07	0.07	—	0.01	0.01	—
Onsite truck	< 0.005	0.02	< 0.005	0.45	0.45	< 0.005	0.04	0.04	3.68
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.40	< 0.005	—	< 0.005	< 0.005	—	< 0.005	91.1
Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	0.52
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	15.1
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	0.09
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	5.55
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.21	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	45.5
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.39
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.06

3.7. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	2.87	0.12	—	0.12	0.11	—	0.11	647
Dust From Material Movement	—	—	—	0.07	0.07	—	0.01	0.01	—
Onsite truck	< 0.005	0.02	< 0.005	0.45	0.45	< 0.005	0.04	0.04	3.62
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.25	0.01	—	0.01	0.01	—	0.01	56.2
Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	< 0.005	0.31
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	9.30
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	0.05
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	5.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.01	0.21	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	44.7
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.47
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.86
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.64

3.8. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	2.86	0.03	—	0.03	0.02	—	0.02	647
Dust From Material Movement	—	—	—	0.07	0.07	—	0.01	0.01	—
Onsite truck	< 0.005	0.02	< 0.005	0.45	0.45	< 0.005	0.04	0.04	3.62
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.25	< 0.005	—	< 0.005	< 0.005	—	< 0.005	56.2
Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	< 0.005	0.31
Annual	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	9.30
Dust From Material Movement	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	0.05
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.03	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	5.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.21	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	44.7
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.47
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.86
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.64

3.9. 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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.83	0.04	—	0.04	0.04	—	0.04	188

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.83	0.04	—	0.04	0.04	—	0.04	188
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.35	0.02	—	0.02	0.02	—	0.02	79.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.2
Onsite truck	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	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.84
Vendor	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.8
Hauling	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	17.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.59
Vendor	< 0.005	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.8
Hauling	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	17.6
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.03
Vendor	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.58
Hauling	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.43
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.67

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.76
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.23

3.10. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.76	< 0.005	—	< 0.005	< 0.005	—	< 0.005	188
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.76	< 0.005	—	< 0.005	< 0.005	—	< 0.005	188
Onsite truck	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	0.32	< 0.005	—	< 0.005	< 0.005	—	< 0.005	79.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.2
Onsite truck	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	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.84
Vendor	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.8

Hauling	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	17.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.05	0.01	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.59
Vendor	< 0.005	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.8
Hauling	< 0.005	0.08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	17.6
Average Daily	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.03
Vendor	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.58
Hauling	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.43
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.67
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.76
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.23

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	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	2.47	0.12	—	0.12	0.11	—	0.11	459
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	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	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.77

Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	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	—	< 0.005	< 0.005	—	< 0.005	0.62
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	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	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.72
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.60	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	130
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.07
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.18

3.12. Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	2.39	0.04	—	0.04	0.03	—	0.03	459
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	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	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005	3.77
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	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	—	< 0.005	< 0.005	—	< 0.005	0.62
Paving	0.00	—	—	—	—	—	—	—	—
Onsite truck	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	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.72
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.60	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	130
Average Daily	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.07
Annual	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.18

3.13. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	1.76	0.05	—	0.05	0.05	—	0.05	268
Architectural Coatings	11.9	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	1.76	0.05	—	0.05	0.05	—	0.05	268
Architectural Coatings	11.9	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.75	0.02	—	0.02	0.02	—	0.02	114
Architectural Coatings	5.06	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.14	< 0.005	—	< 0.005	< 0.005	—	< 0.005	18.8

Architectural Coatings	0.92	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.92
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.81
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Architectural Coating (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.04	2.14	0.06	—	0.06	0.06	—	0.06	268
Architectural Coatings	11.9	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	2.14	0.06	—	0.06	0.06	—	0.06	268
Architectural Coatings	11.9	—	—	—	—	—	—	—	—
Onsite truck	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	0.91	0.03	—	0.03	0.02	—	0.02	114
Architectural Coatings	5.06	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.17	< 0.005	—	< 0.005	< 0.005	—	< 0.005	18.8
Architectural Coatings	0.92	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.92

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.81
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Trenching (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.44	0.02	—	0.02	0.02	—	0.02	96.0
Onsite truck	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	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.76
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.12
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.29
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Trenching (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.47	0.01	—	0.01	0.01	—	0.01	96.0
Onsite truck	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	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.76

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.12
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.29
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Trenching (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.04	0.41	0.01	—	0.01	0.01	—	0.01	96.0
Onsite truck	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	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.28
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Trenching (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.47	0.01	—	0.01	0.01	—	0.01	96.0
Onsite truck	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	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	13.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	2.28
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	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	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.10

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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	9/2/2024	10/17/2024	6.00	40.0	—
Site Preparation	Site Preparation	10/18/2024	11/1/2024	6.00	13.0	—
Grading	Grading	11/2/2024	2/6/2025	6.00	83.0	—
Building Construction	Building Construction	1/1/2025	6/30/2025	6.00	155	—
Paving	Paving	2/7/2025	2/10/2025	6.00	3.00	—
Architectural Coating	Architectural Coating	7/1/2025	12/28/2025	6.00	155	—
Trenching	Trenching	12/2/2024	3/2/2025	6.00	78.0	—

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	0.30	33.0	0.73
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Demolition	Excavators	Diesel	Average	2.00	6.20	36.0	0.38
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	2.50	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	5.50	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	3.80	36.0	0.38
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	1.00	84.0	0.37

Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	2.00	6.00	37.0	0.48
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	2.00	1.00	84.0	0.37
Trenching	Excavators	Diesel	Average	1.00	1.30	36.0	0.38

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	0.30	33.0	0.73
Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	2.00	8.00	84.0	0.37
Demolition	Excavators	Diesel	Tier 4 Interim	2.00	6.20	36.0	0.38
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	1.00	7.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Interim	1.00	2.50	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	2.00	5.50	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Interim	1.00	3.80	36.0	0.38
Building Construction	Forklifts	Diesel	Tier 4 Interim	1.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	2.00	1.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Interim	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Tier 4 Interim	1.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	2.00	6.00	37.0	0.48
Trenching	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	2.00	1.00	84.0	0.37
Trenching	Excavators	Diesel	Tier 4 Interim	1.00	1.30	36.0	0.38

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	—	0.50	HHDT,MHDT
Demolition	Hauling	15.8	0.50	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	2.50	0.50	LDA,LDT1,LDT2
Site Preparation	Vendor	—	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	0.00	0.50	HHDT,MHDT
Grading	Hauling	12.3	0.50	HHDT
Grading	Onsite truck	1.00	0.50	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	17.6	0.50	LDA,LDT1,LDT2
Building Construction	Vendor	3.96	0.50	HHDT,MHDT
Building Construction	Hauling	4.86	0.50	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	5.00	0.50	LDA,LDT1,LDT2
Paving	Vendor	—	0.50	HHDT,MHDT

Paving	Hauling	36.0	0.50	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	3.53	0.50	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	0.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	0.50	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	7.50	0.50	LDA,LDT1,LDT2
Trenching	Vendor	—	0.50	HHDT,MHDT
Trenching	Hauling	0.00	0.50	HHDT
Trenching	Onsite truck	—	—	HHDT

5.3.2. Mitigated

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	—	0.50	HHDT,MHDT
Demolition	Hauling	15.8	0.50	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	2.50	0.50	LDA,LDT1,LDT2
Site Preparation	Vendor	—	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	0.00	0.50	HHDT,MHDT
Grading	Hauling	12.3	0.50	HHDT
Grading	Onsite truck	1.00	0.50	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	17.6	0.50	LDA,LDT1,LDT2
Building Construction	Vendor	3.96	0.50	HHDT,MHDT
Building Construction	Hauling	4.86	0.50	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	5.00	0.50	LDA,LDT1,LDT2
Paving	Vendor	—	0.50	HHDT,MHDT
Paving	Hauling	36.0	0.50	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	3.53	0.50	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	0.50	HHDT,MHDT
Architectural Coating	Hauling	0.00	0.50	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	7.50	0.50	LDA,LDT1,LDT2
Trenching	Vendor	—	0.50	HHDT,MHDT
Trenching	Hauling	0.00	0.50	HHDT
Trenching	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	265,423	88,474	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	43,200	—
Site Preparation	—	—	0.00	0.00	—
Grading	7,398	800	13.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.28

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
Single Family Housing	0.28	0%
Condo/Townhouse	—	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	809	0.03	< 0.005
2024	0.00	809	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	13.3	annual days of extreme heat
Extreme Precipitation	2.70	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	14.4	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	22.2
AQ-PM	13.0
AQ-DPM	2.55
Drinking Water	31.3
Lead Risk Housing	20.1
Pesticides	0.00
Toxic Releases	27.6
Traffic	9.13
Effect Indicators	—
CleanUp Sites	17.1
Groundwater	0.00
Haz Waste Facilities/Generators	16.6
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	26.4
Cardio-vascular	35.7
Low Birth Weights	53.5
Socioeconomic Factor Indicators	—
Education	51.0
Housing	37.5
Linguistic	74.8
Poverty	30.5

Unemployment	66.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	83.11305017
Employed	80.26433979
Median HI	93.27601694
Education	—
Bachelor's or higher	74.16912614
High school enrollment	100
Preschool enrollment	95.7141024
Transportation	—
Auto Access	42.10188631
Active commuting	30.20659566
Social	—
2-parent households	89.50340049
Voting	78.94264083
Neighborhood	—
Alcohol availability	68.67701784
Park access	25.8052098
Retail density	16.47632491
Supermarket access	2.399589375
Tree canopy	69.35711536
Housing	—
Homeownership	90.85076351

Housing habitability	81.71435904
Low-inc homeowner severe housing cost burden	69.97305274
Low-inc renter severe housing cost burden	31.52829462
Uncrowded housing	90.74810728
Health Outcomes	—
Insured adults	97.93404337
Arthritis	39.1
Asthma ER Admissions	74.9
High Blood Pressure	16.4
Cancer (excluding skin)	24.3
Asthma	92.9
Coronary Heart Disease	47.4
Chronic Obstructive Pulmonary Disease	76.7
Diagnosed Diabetes	47.0
Life Expectancy at Birth	94.0
Cognitively Disabled	60.3
Physically Disabled	91.7
Heart Attack ER Admissions	57.2
Mental Health Not Good	91.8
Chronic Kidney Disease	45.1
Obesity	93.1
Pedestrian Injuries	54.6
Physical Health Not Good	78.6
Stroke	58.2
Health Risk Behaviors	—
Binge Drinking	95.9
Current Smoker	94.0

No Leisure Time for Physical Activity	65.2
Climate Change Exposures	—
Wildfire Risk	0.3
SLR Inundation Area	0.0
Children	90.2
Elderly	18.2
English Speaking	27.9
Foreign-born	67.0
Outdoor Workers	80.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	83.8
Traffic Density	5.1
Traffic Access	64.1
Other Indices	—
Hardship	16.3
Other Decision Support	—
2016 Voting	81.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	7.00
Healthy Places Index Score for Project Location (b)	90.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	San Jose Clean Energy 2020 rate = 178 lb/MWh.
Land Use	Total lot acreage, overall square footage, and number of dwelling units provided from filled out construction worksheet. Default square footage used for ADU's and then subtracted from provided square footage to get square footage of single family homes.
Construction: Construction Phases	Provided start and end dates by project applicant.
Construction: Off-Road Equipment	Construction equipment quantity and hours provided by project applicant.
Construction: Trips and VMT	Demolition = 750 tons of pavement demo (3.33 trips/day), Grading = 1 water truck 5 hours a day, Building Const = 350 concrete truck round trips (4.86 trips/day), and Paving = 300 cubic yards asphalt (36 trips/day). HRA = 0.5 mile trip length for localized emissions.
Construction: On-Road Fugitive Dust	Air District BMPs - 15 MPH, required by San Jose as Standard Permit Condition.
Operations: Vehicle Data	Provided trip gen with reduction adjustments.
Operations: Hearths	No hearths.
Operations: Energy Use	San Jose REACH Code - no natural gas. Convert natural gas to electricity.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.

Attachment 2: Project Construction Emissions and Health Risk Calculations

Construction Health Risk Assessment and Calculations

3315 Sierra Road, San Jose, CA

DPM Construction Emissions and Modeling Emission Rates

Construction Year	Activity	DPM (ton/year)	Source Type	No. Sources	DPM Emissions (lb/yr)	DPM Emissions (lb/hr)	DPM Emissions (g/s)	Emissions per Point Source (g/s)
2024	Construction	0.0074	Point	295	14.7	0.00416	5.24E-04	1.78E-06
2025	Construction	0.0099	Point	295	19.8	0.00560	7.06E-04	2.39E-06
Total		***0.0173***			***34.5***	***0.0098***	***0.0012***	

Emissions assumed to be evenly distributed over each construction areas

hr/day = 11 (7am-7pm M-F, 9am - 5pm Sat)
days/yr = 312
hours/year = 3536

3315 Sierra Road, San Jose, CA

PM2.5 Fugitive Dust Construction Emissions for Modeling

Construction Year	Activity	Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions (lb/yr)	PM2.5 Emissions (lb/hr)	PM2.5 Emissions (g/s)	Modeled Area (m^2)	DPM Emission Rate $g/s/m^2$
2024	Construction	CON_FUG	0.0048	9.6	0.00273	3.43E-04	10679.6	3.22E-08
2025	Construction	CON_FUG	0.0011	2.2	0.00063	7.90E-05	10679.6	7.39E-09
Total			***0.0059***	***11.9***	***0.0034***	***0.0004***		

Emissions assumed to be evenly distributed over each construction areas

hr/day = 11 (7am-7pm M-F, 9am - 5pm Sat)
days/yr = 312
hours/year = 3536

3315 Sierra Road, San Jose, CA
- Construction Health Impact Modeling

Source Parameters for Point Sources Used in Construction Modeling

Source	Stack Height (ft)	Stack Diam (in)	Exhaust Temp (F)	Volume Flow (acfm)	Velocity (ft/min)	Velocity (ft/sec)
Construction Equipment	9.0	2.5	918	632	18540	309.0

Source	Stack Height (m)	Stack Diam (m)	Exhaust Temp (K)			Velocity (ft/sec)
Construction Equipment	2.74	0.064	765.37			94.2

3315 Sierra Road, San Jose, CA - Construction Health Impact Summary

Maximum Impacts at MEI Residential Location - Without Mitigation

Emissions Year	Maximum Concentrations		Cancer Risk (per million)		Hazard Index	Maximum Annual PM2.5 Concentration
	Exhaust PM10/DPM ($\mu g/m^3$)	Fugitive PM2.5 ($\mu g/m^3$)	Infant/Child	Adult	(-)	($\mu g/m^3$)
2024	0.0121	0.0244	2.16	0.03	0.002	0.04
2025	0.0163	0.0056	2.68	0.05	0.003	0.02
Total	-	-	**4.84**	**0.08**	-	-
Maximum	0.0163	0.0244	**-**	**-**	**0.003**	**0.04**

Maximum Impacts at Piedmont Hills High School - Without Mitigation

Construction Year	Unmitigated Emissions				
	Maximum Concentrations		Child Cancer Risk	Hazard Index	Maximum Annual PM2.5 Concentration
	Exhaust PM10/DPM ($\mu g/m^3$)	Fugitive PM2.5 ($\mu g/m^3$)	(per million)	(-)	($\mu g/m^3$)
2024	0.0008	0.0007	0.04	0.0002	0.001
2025	0.0010	0.00016	0.05	0.00021	0.001
Total	-	-	**0.09**	-	-
Maximum	0.0010	0.0007	**-**	**0.0002**	**0.001**

3315 Sierra Road, San Jose, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 1.5 meter receptor height (1st Floor Level)

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum		
			DPM Conc (ug/m3)		Age	Infant/Child	Modeled DPM Conc (ug/m3)		Age	Adult			
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Annual**	**Sensitivity Factor**	**Cancer Risk (per million)**	**Year**	**Annual**	**Sensitivity Factor**	**Cancer Risk (per million)**	**Hazard Index**	**Fugitive PM2.5**	**Total PM2.5**
0	0.25	-0.25 - 0*	2024	0.0121	10	0.17	2024	0.0121	-	-			
1	1	0 - 1	2024	0.0121	10	1.99	2024	0.0121	1	0.03	0.002	0.02	0.04
2	1	1 - 2	2025	0.0163	10	2.68	2025	0.0163	1	0.05	0.003	0.01	0.02
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00			
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00			
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00			
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00			
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00			
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00			
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00			
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00			
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00			
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00			
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00			
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00			
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00			
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00			
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00			
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00			
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00			
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00			
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00			
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00			
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00			
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00			
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00			
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00			
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00			
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00			
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00			
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00			
Total Increased Cancer Risk						**4.84**				**0.08**			

* Third trimester of pregnancy

3315 Sierra Road, San Jose, CA - Construction Impacts - Without Mitigation
Maximum DPM Cancer Risk and PM2.5 Calculations From Construction
Impacts at Off-Site MEI Location - 4.5 meter receptor height (2nd Floor Level)

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant/Child			Adult
Age -->	3rd Trimester	0 - 2	2 - 16	16 - 30
Parameter				
ASF =	10	10	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

			Infant/Child - Exposure Information				Adult - Exposure Information				Maximum		
			DPM Conc (ug/m3)		Age	Infant/Child	Modeled DPM Conc (ug/m3)		Age	Adult			
Exposure Year	Exposure Duration (years)	Age	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Year	Annual	Sensitivity Factor	Cancer Risk (per million)	Hazard Index	Fugitive PM2.5	Total PM2.5
0	0.25	-0.25 - 0*	2024	0.0072	10	0.10	2024	0.0072	-	-			
1	1	0 - 1	2024	0.0072	10	1.18	2024	0.0072	1	0.02	0.001	0.01	0.02
2	1	1 - 2	2025	0.0097	10	1.58	2025	0.0097	1	0.03	0.002	0.002	0.01
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00			
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00			
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00			
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00			
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00			
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00			
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00			
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00			
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00			
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00			
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00			
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00			
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00			
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00			
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00			
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00			
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00			
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00			
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00			
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00			
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00			
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00			
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00			
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00			
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00			
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00			
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00			
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00			
Total Increased Cancer Risk						**2.86**				**0.05**			

* Third trimester of pregnancy

3315 Sierra Road, San Jose, CA - Construction Risks at School Receptors
Maximum DPM Cancer Risk and PM2.5 Calculations For Construction Emissions - Unmitigated
Impacts at Piedmont Hills High School - Child Exposure, 1.5 meter receptor heights

Student Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)

Inhalation Dose = C_{air} x SCAF x 8-Hr BR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
SCAF = School Child Adjustment Factor (unitless) for source operation and exposures different than 8 hours/day
= (24/SHR) x (7days/SDay) x (SCHR/8 hrs)
SHR = Hours/day of emission source operation
SDay = Number of days per week of source operation
SCHR = School operation hours while emission source in operation
8-Hr BR = Eight-hour breathing rate (L/kg body weight-per 8 hrs)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Values

	Infant	Child
Age -->	**0 - <2**	**2 - <16**
Parameter		
ASF =	10	3
DPM CPF =	1.10E+00	1.10E+00
8-Hr BR* =	1200	520
SCHR =	9	9
SHR =	11	11
SDay =	6	6
A =	1	1
EF =	250	250
AT =	70	70
SCAF =	2.86	2.86

* 95th percentile 8-hr breathing rates for moderate intensity activities

Construction Cancer Risk by Year - Head Start Center Receptor

Exposure Year	Exposure Duration (years)	Age	Child - Exposure Information: DPM Conc (ug/m3) Year	DPM Conc (ug/m3) Annual	Age* Sensitivity Factor	Child Cancer Risk (per million)	Maximum: Hazard Index	Fugitive PM2.5	Total PM2.5
1	1	14 - 15	2024	0.0008	3	0.04	0.0002	0.001	0.0015
2	1	15 - 16	2025	0.0010	3	0.05	0.00021	0.0002	0.0012
Total Increased Cancer Risk						**0.09**			

* Children assumed to be +14 years and older during 2 years of construction activities

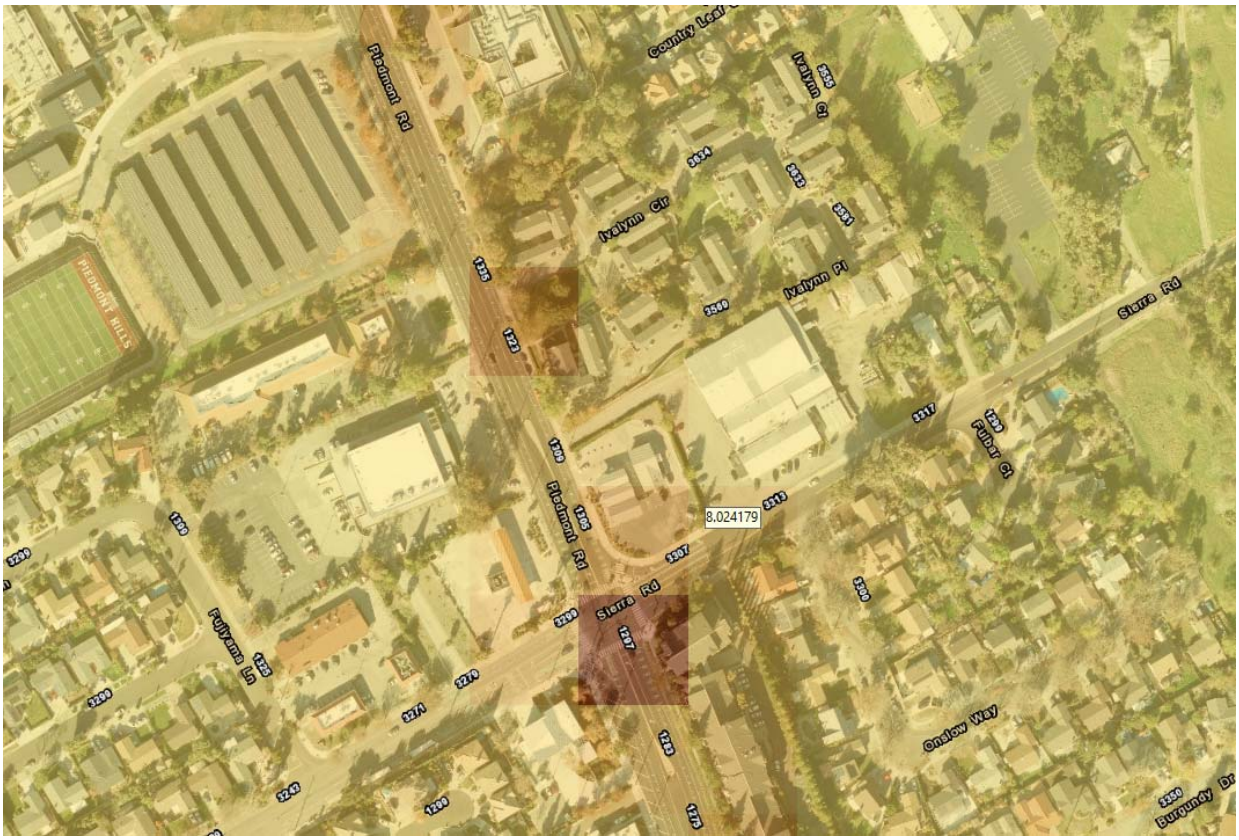
Attachment 3: Cumulative Screening Information and Modeling Calculations

BAAQMD RASTER Screening Data – Roadway Cancer Risk Impacts at the MEI

BAAQMD RASTER Screening Data – Roadway $PM_{2.5}$ Concentration Impacts at the MEI

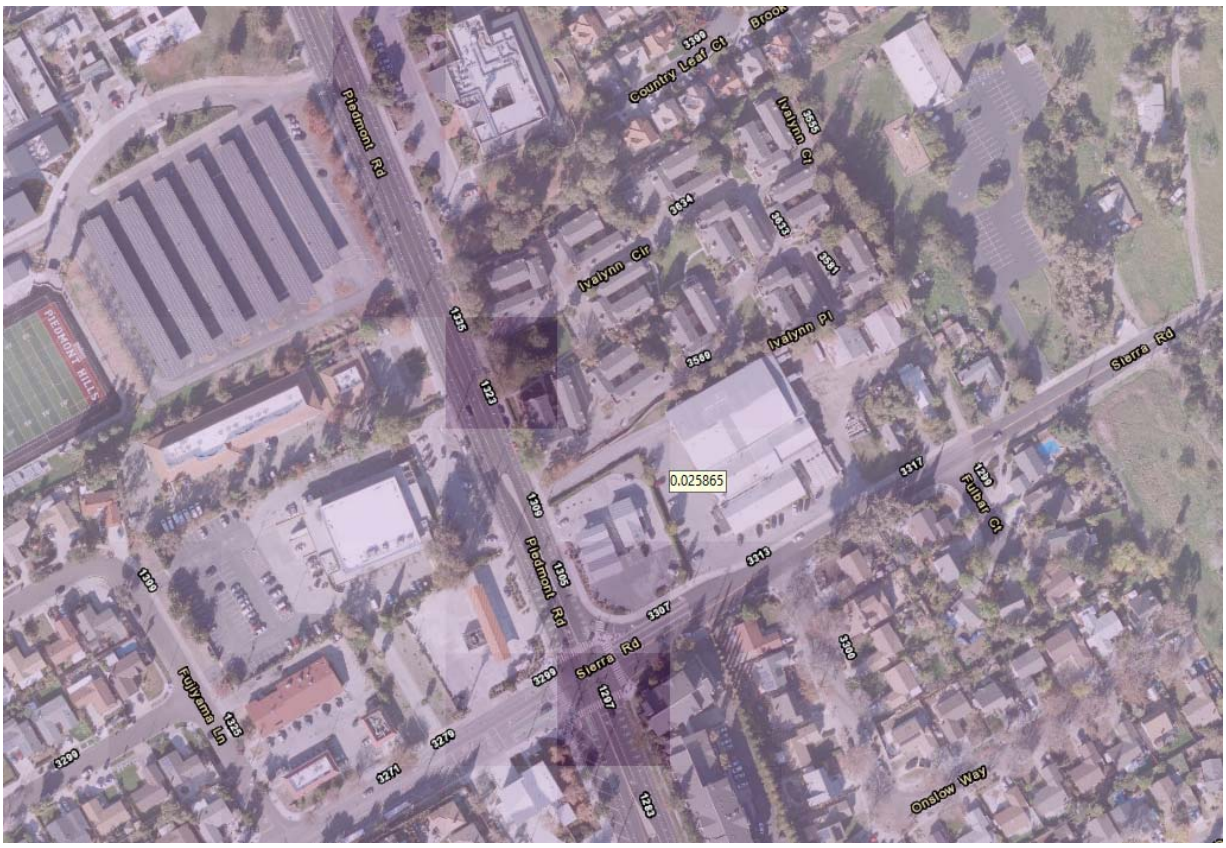
BAAQMD RASTER Screening Data – Roadway Hazard Index Impacts at the MEI

BAAQMD RASTER Screening Data – Roadway Cancer Risk Impacts at the Project Site



BAAQMD RASTER Screening Data – Roadway $PM_{2.5}$ Concentration Impacts at the Project Site

BAAQMD RASTER Screening Data – Roadway Hazard Index Impacts at the Project Site

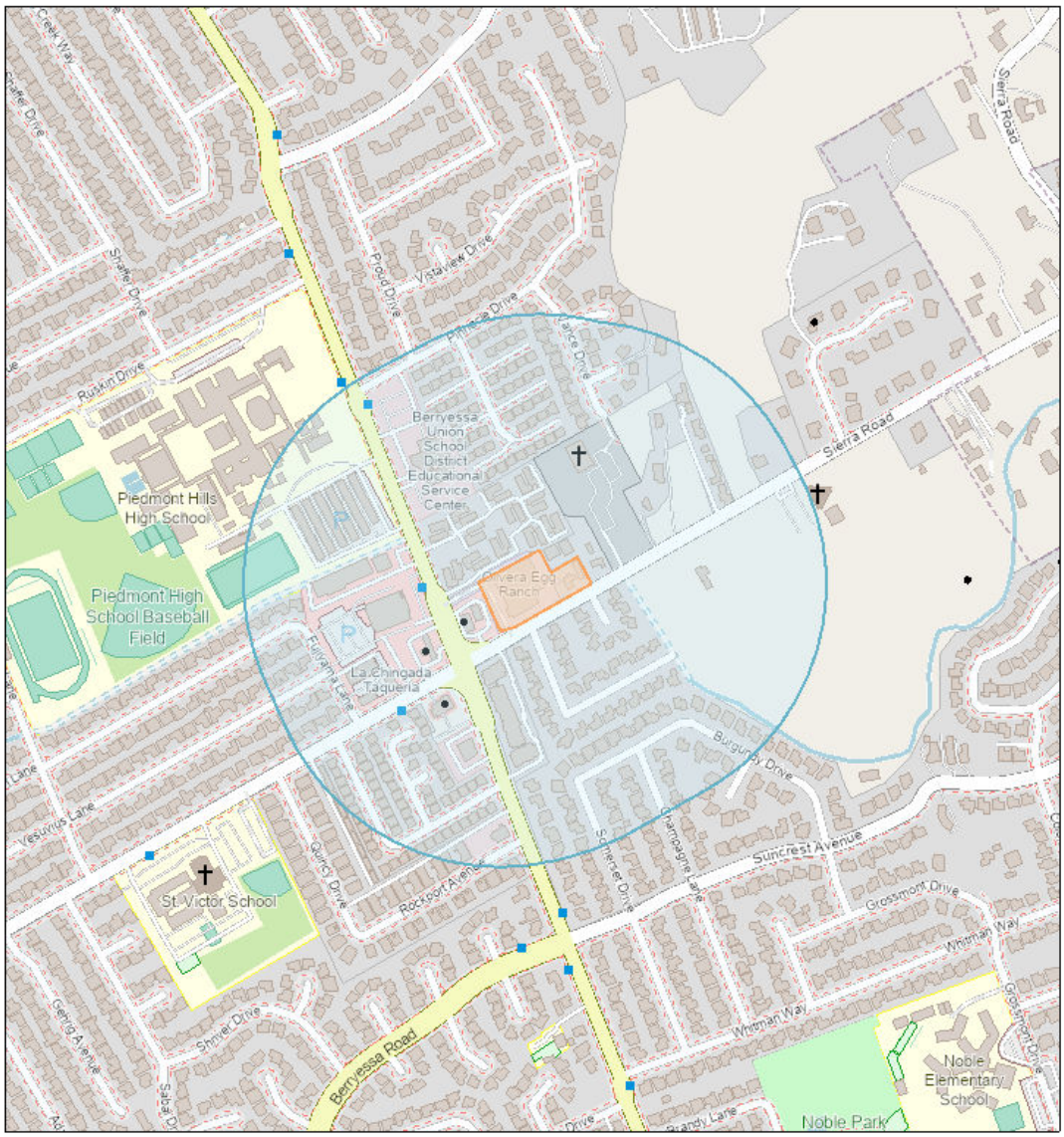


Screening Report

Area of Interest (AOI) Information

Area : 4,478,925.35 ft²

May 16 2023 16:29:46 Pacific Daylight Time



Summary

Name	Count	Area(ft²)	Length(ft)
Permitted Stationary Sources	3	N/A	N/A

Permitted Stationary Sources

#	Facility_I	Facility_N	Address	City	State
1	19765	City of San Jose Fire Station #19	3292 Sierra Road	San Jose	CA
2	104098	Rotten Robbie #43	1304 Piedmont Rd	San Jose	CA
3	112260	Piedmont Shell	1299 PIEDMONT RD	San Jose	CA

#	Zip	County	Latitude	Longitude	Details
1	95132	Santa Clara	37.399351	-121.847207	Generator
2	95132	Santa Clara	37.400302	-121.846914	Gas Dispensing Facility
3	95132	Santa Clara	37.399961	-121.847482	Gas Dispensing Facility

#	NAICS	NAICS_Sect	NAICS_Subs	NAICS_Indu	Cancer_Ris
1	922160	Public Administration	Justice, Public Order, and Safety Activities	Fire Protection	0.069000
2	447110	Retail Trade	Gasoline Stations	Gasoline Stations with Convenience Stores	17.483000
3	447110	Retail Trade	Gasoline Stations	Gasoline Stations with Convenience Stores	8.069000

#	Chronic_Ha	PM25	Count
1	0.000000	0.000000	1
2	0.076000	0.000000	1
3	0.035000	0.000000	1

NOTE: A larger buffer than 1000 feet may be warranted depending on proximity to significant sources.

Bay Area Air Quality Management District

Risk & Hazard Stationary Source Inquiry Form

This form is required when users request stationary source data from BAAQMD

This form is to be used with the BAAQMD's Google Earth stationary source screening tables.

Click here for guidance on coducting risk & hazard screening, including roadways & freeways, refer to the District's Risk & Hazard Analysis flow chart.

Click here for District's Recommended Methods for Screening and Modeling Local Risks and Hazards document.

Table A: Requester Contact Information

Date of Request	**10/3/2023**
Contact Name	Jordyn Bauer
Affiliation	Illingworth & Rodkin, Inc.
Phone	707-794-0400 x106
Email	jbauer@illingworthrodkin.com
Project Name	3315 Sierra Road
Address	3315 Sierra Road
City	San Jose
County	Santa Clara
Type (residential, commercial, mixed use, industrial, etc.)	Residential
Project Size (# of units or building square feet)	25

Comments:

For Air District assistance, the following steps must be completed:

1. Complete all the contact and project information requested in **Table A** ncomplete forms will not be processed. Please include a project site map.

2. Download and install the free program Google Earth, **http://www.google.com/earth/download/ge/,** and then download the county specific Google Earth stationary source application files from the District's website, **http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.** The small points on the map represent stationary sources permitted by the District (Map A on right). These permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc. Click on a point to view the source's Information Table, including the name, location, and preliminary estimated cancer risk, hazard index, and PM2.5 concentration.

3. Find the project site in Google Earth by inputting the site's address in the Google Earth search box.

4. Identify stationary sources within at least a 1000ft radius of project site. Verify that the location of the source on the map matches with the source's address in the Information Table, by using the Google Earth address search box to confirm the source's address location. Please report any mapping errors to the District.

5. List the stationary source information in **Table B** lue section only.

6. Note that a small percentage of the stationa[illegible] ve Health Risk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). If HRSA values are presented, these values have already been modeled and cannot be adjusted further.

7. Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

Note that a public records request received for the same stationary source information will cancel the processing of your SSIF request.

Submit forms, maps, and questions to Matthew Hanson at 415-749-8733, or mhanson@baaqmd.gov

Table B: Google Earth data

Distance from Receptor (feet) or MEI[1]	Plant No.	Facility Name	Address	Cancer Risk[2]	Hazard Risk[2]	$PM_{2.5}$[2]	Source No.[3]	Type of Source[4]	Fuel Code[5]	Status/Comments	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
580	19765	City of San Jose Fire Station #1	3292 Sierra Road	0.07	-	-		Generator		2021 Dataset	0.09	0.01	#VALUE!	#VALUE!
300	104098	Rotten Robbie #43	1304 Piedmont Rd	17.48	0.08	-		Gas Dispensing Facility		BAAQMD Public Records data, CARB GDF screening tool - exceeds screening, need to model in AERMOD.	NA	9.52	0.15	-
530	112260	Piedmont Shell	1299 PIEDMONT RD	8.07	0.04	-		Gas Dispensing Facility		BAAQMD Public Records data, CARB GDF screening tool.	NA	1.73	0.04	-

Construction MEI

Project Site

Distance from Receptor (feet) or MEI[1]	FACID (Plant No.)	Distance Adjustment Multiplier	Adjusted Cancer Risk Estimate	Adjusted Hazard Risk	Adjusted PM2.5
300	19765	0.25	0.02	#VALUE!	#VALUE!
30	104098	NA	**110.84**	**1.31**	-
240	112260	NA	6.45	0.15	-

Footnotes:

1. Maximally exposed individual

2. These Cancer Risk, Hazard Index, and PM2.5 columns represent the values in the Google Earth Plant Information Table.
3. Each plant may have multiple permits and sources.
4. Permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc.
5. Fuel codes: 98 = diesel, 189 = Natural Gas.
6. If a Health Risk Screening Assessment (HRSA) was completed for the source, the application number will be listed here.

8. Engineer who completed the HRSA. For District purposes only.
9. All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
10. The HRSA "Chronic Health" number represents the Hazard Index.
11. Further information about common sources:
    a. Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.
    b. The risk from natural gas boilers used for space heating when <25 MM BTU/hr would have an estimated cancer risk of one in a million or less, and a chronic hazard index of 0.003 or
    c. BAAQMD Reg 11 Rule 16 required that all co-residential (sharing a wall, floor, ceiling or is in the same building as a residential unit) dry cleaners cease use of perc on July 1, 2010. Therefore, there is no cancer risk, hazard or PM2.5 concentrations from co-residential dry cleaning businesses in the BAAQMD.
    d. Non co-residential dry cleaners must phase out use of perc by Jan. 1, 2023. Therefore, the risk from these dry cleaners does not need to be factored in over a 70-year period, but instead should reflect
    e. Gas stations can be adjusted using BAAQMD's Gas Station Distance Mulitplier worksheet.
    f. Unless otherwise noted, exempt sources are considered insignificant. See BAAQMD Reg 2 Rule 1 for a list of exempt sources.
    g. This spray booth is considered to be insignificant.

Date last updated:
03/13/2018

2022 CARB & CAPCOA Gasoline Service Station Industrywide Risk Assessment Look-up Tool
Version 1.0 - February 18, 2022

Required Value	User Defined Input	Instructions
Annual Throughput (gallons/year)	14500000	Enter your gas station's annual throughput in gallons of gasoline dispensed per year.
Hourly Dispensing Throughput (gallons/hour)	4000	The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4.
Hourly Loading Throughput (gallons/hour)	8800	The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5.
Meteorological Data	San Jose	Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool.
Distance to Nearest Resident (meters)	90	Enter the distance to the nearest residential receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Nearest Business (meters)	90	Enter the distance to the nearest worker receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Acute Receptor (meters)	90	Enter the distance where acute impacts are expected in meters as measured from the edge of the station canopy. This can be the distance to the property boundary, nearest resident, nearest worker, or any other user defined location. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Control Scenario	EVR Phase I & EVR Phase II	Select the appropriate control scenario for your gas station. Please refer to technical Guidance for an explanation of the different control scenarios. Almost all gas stations in California are equipped with EVR Phase I and EVR Phase II controls.
Include Building Downwash Adjustments	no	Building downwash may over estimate risk results. High results should be investigated further through site-specific health risk assessment.

Risk Value	Results
Max Residential Cancer Risk (chances/million)	9.52
Max Worker Cancer Risk (chances/million)	0.79
Chronic HI	0.04
Acute HI	0.15

2022 CARB & CAPCOA Gasoline Service Station Industrywide Risk Assessment Look-up Tool
Version 1.0 - February 18, 2022

Required Value	User Defined Input	Instructions
Annual Throughput (gallons/year)	14500000	Enter your gas station's annual throughput in gallons of gasoline dispensed per year.
Hourly Dispensing Throughput (gallons/hour)	4000	The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4.
Hourly Loading Throughput (gallons/hour)	8800	The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5.
Meteorological Data	San Jose	Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool.
Distance to Nearest Resident (meters)	10	Enter the distance to the nearest residential receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Nearest Business (meters)	10	Enter the distance to the nearest worker receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Acute Receptor (meters)	10	Enter the distance where acute impacts are expected in meters as measured from the edge of the station canopy. This can be the distance to the property boundary, nearest resident, nearest worker, or any other user defined location. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Control Scenario	EVR Phase I & EVR Phase II	Select the appropriate control scenario for your gas station. Please refer to technical Guidance for an explanation of the different control scenarios. Almost all gas stations in California are equipped with EVR Phase I and EVR Phase II controls.
Include Building Downwash Adjustments	no	Building downwash may over estimate risk results. High results should be investigated further through site-specific health risk assessment.

Risk Value	Results
Max Residential Cancer Risk (chances/million)	110.84
Max Worker Cancer Risk (chances/million)	9.14
Chronic HI	0.41
Acute HI	1.31

2022 CARB & CAPCOA Gasoline Service Station Industrywide Risk Assessment Look-up Tool
Version 1.0 - February 18, 2022

Required Value	User Defined Input	Instructions
Annual Throughput (gallons/year)	6680000	Enter your gas station's annual throughput in gallons of gasoline dispensed per year.
Hourly Dispensing Throughput (gallons/hour)	2000	The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4.
Hourly Loading Throughput (gallons/hour)	8800	The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5.
Meteorological Data	San Jose	Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool.
Distance to Nearest Resident (meters)	160	Enter the distance to the nearest residential receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Nearest Business (meters)	160	Enter the distance to the nearest worker receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Acute Receptor (meters)	160	Enter the distance where acute impacts are expected in meters as measured from the edge of the station canopy. This can be the distance to the property boundary, nearest resident, nearest worker, or any other user defined location. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Control Scenario	EVR Phase I & EVR Phase II	Select the appropriate control scenario for your gas station. Please refer to technical Guidance for an explanation of the different control scenarios. Almost all gas stations in California are equipped with EVR Phase I and EVR Phase II controls.
Include Building Downwash Adjustments	no	Building downwash may over estimate risk results. High results should be investigated further through site-specific health risk assessment.

Risk Value	Results
Max Residential Cancer Risk (chances/million)	1.73
Max Worker Cancer Risk (chances/million)	0.14
Chronic HI	0.01
Acute HI	0.04

2022 CARB & CAPCOA Gasoline Service Station Industrywide Risk Assessment Look-up Tool
Version 1.0 - February 18, 2022

Required Value	User Defined Input	Instructions
Annual Throughput (gallons/year)	6680000	Enter your gas station's annual throughput in gallons of gasoline dispensed per year.
Hourly Dispensing Throughput (gallons/hour)	2000	The tool will calculate the maximum hourly vehicle fueling throughput based on annual throughput as defined by Table 10 of the 2020 Gasoline Service Station Industrywide Risk Assessment Technical Guidance Document (Technical Guidance). If a different value is desired please enter it into cell L4.
Hourly Loading Throughput (gallons/hour)	8800	The tool will calculate the maximum hourly loading throughput based on annual throughput as defined by Table 10 of the Technical Guidance. If a different value is desired please enter it into cell L5.
Meteorological Data	San Jose	Select appropriate meteorological data. Met sets provided include 2 rural (Redding and Lancaster) and 4 urban (Fresno, Ontario, San Diego, and San Jose) locations. Use whichever best correlates to your location. If you would like to use site-specific meteorological data please refer to the Variable Met Tool.
Distance to Nearest Resident (meters)	75	Enter the distance to the nearest residential receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Nearest Business (meters)	75	Enter the distance to the nearest worker receptor in meters as measured from the edge of the station canopy. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Distance to Acute Receptor (meters)	75	Enter the distance where acute impacts are expected in meters as measured from the edge of the station canopy. This can be the distance to the property boundary, nearest resident, nearest worker, or any other user defined location. Please note that the value must be between 10 and 1000 meters. The distance you input will round down to the nearest receptor distance used in the Technical Guidance (e.g., 19m will return value at 10m distance).
Control Scenario	EVR Phase I & EVR Phase II	Select the appropriate control scenario for your gas station. Please refer to technical Guidance for an explanation of the different control scenarios. Almost all gas stations in California are equipped with EVR Phase I and EVR Phase II controls.
Include Building Downwash Adjustments	no	Building downwash may over estimate risk results. High results should be investigated further through site-specific health risk assessment.

Risk Value	Results
Max Residential Cancer Risk (chances/million)	6.45
Max Worker Cancer Risk (chances/million)	0.53
Chronic HI	0.02
Acute HI	0.15

Gas Station Source#104098 Health Risk Assessment and Calculations

```
           File Name:   Gas Station Trips 2024.EF
CT-EMFAC2021 Version:   1.0.2.0
            Run Date:   10/23/2023 10:19:41 AM
                Area:   Santa Clara (SF)
       Analysis Year:   2024
              Season:   Annual

=============================================================================

Vehicle Category        VMT Fraction            Diesel VMT Fraction     Gas VMT
Fraction
                        Across Category         Within Category         Within
Category
         Truck 1             0.000                  0.415                   0.581
         Truck 2             0.000                  0.914                   0.046
       Non-Truck             1.000                  0.007                   0.923

=============================================================================

               Road Type:       Major/Collector
     Silt Loading Factor:                  CARB         0.032 g/m2
Precipitation Correction:                  CARB         P = 63 days     N = 365
days

=============================================================================

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

       Pollutant Name      <= 5 mph          35 mph
                PM2.5      0.008363        0.001215
                  TOG      0.138148        0.020806
           Diesel PM      0.000270        0.000083

=============================================================================

Fleet Average Running Loss Emission Factors (grams/veh-hour)

       Pollutant Name   Emission Factor
                  TOG          1.039146

=============================================================================

Fleet Average Tire Wear Factors (grams/veh-mile)

       Pollutant Name   Emission Factor
                PM2.5          0.002007

=============================================================================
```

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	<= 5 mph	35 mph
PM2.5	0.002403	0.004648

==========

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.012834

==========END==========

```
           File Name:   Gas Station Trips 2026.EF
CT-EMFAC2021 Version:   1.0.2.0
            Run Date:   10/23/2023 10:19:50 AM
                Area:   Santa Clara (SF)
       Analysis Year:   2026
              Season:   Annual
```

Vehicle Category	VMT Fraction	Diesel VMT Fraction	Gas VMT Fraction
	Across Category	Within Category	Within Category
Truck 1	0.000	0.416	0.563
Truck 2	0.000	0.904	0.045
Non-Truck	1.000	0.007	0.914

```
               Road Type:       Major/Collector
     Silt Loading Factor:                  CARB         0.032 g/m2
Precipitation Correction:                  CARB         P = 63 days     N = 365
days
```

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	<= 5 mph	35 mph
PM2.5	0.007702	0.001113
TOG	0.115856	0.017570
Diesel PM	0.000217	0.000069

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	0.982738

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.002007

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name	<= 5 mph	35 mph
PM2.5	0.002386	0.004620

==========

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name	Emission Factor
PM2.5	0.012895

==========END==========

3315 Sierra Road, San Jose, CA - Rotten Robbie Operation
AERMOD Risk Modeling Parameters & Maximum TAC Concentrations & Non-Cancer Health Effects
Single-Family Residential Receptors (1.5m heights)

Receptor Information

Number of Receptors	30
Receptor Height =	1.5 meters
Receptor Distances =	Variable - placed at nearby residences

Meteorological Conditions

BAAQMD San Jose International Air	2013-2017
Land Use Classification	Urban
Wind Speed =	variable
Wind Direction =	variable

Reference Exposure Levels (REL)

TAC	CPF	REL (µg/m3)	
		Acute	Chronic
	$(mg/kg\text{-}day)^{-1}$	(1-hour)	(annual avg)
Benzene	1.00E-01	2.7	3

Residential MEI Concentrations

	Concentrations (µg/m3)	
	Annual	Annual
TAC	Onsite Max Period Average	Offsite Max Period Average
Benzene	0.12646	0.02264

Annual - Non-Cancer Health Effects

	Maximum Concentration*		Hazard Index	
	Period Avg	1-Hour		
TAC	(µg/m3)	(µg/m3)	Chronic	Acute
Benzene	0.12646	0	0.04215	0.0000
TOTAL			**0.0422**	**0.0000**

*Maximum for all receptors (residential and worker)

3315 Sierra Road, San Jose, CA - Impacts from Rotten Robbie
Maximum Cancer Risk at Offsite MEI
1.5 meter receptor height

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
Benzene	1.00E-01

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Project Operation Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration	Cancer Risk (per million)	TOTAL
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**Benzene**	**Benzene**	
0	0.25	-0.25 - 0*	2024	10	0.0226	0.0280	0.03
1	0.4	0 - 1	2024	10	0.0226	0.1426	0.14
2	1	1 - 2	2025	10	0.0226	0.3380	0.34
3	1	2 - 3	2026	3	0.0226	0.0532	0.05
4	1	3 - 4	2027	3	0.0226	0.0532	0.05
5	1	4 - 5	2028	3	0.0226	0.0532	0.05
6	1	5 - 6	2029	3	0.0226	0.0532	0.05
7	1	6 - 7	2030	3	0.0226	0.0532	0.05
8	1	7 - 8	2031	3	0.0226	0.0532	0.05
9	1	8 - 9	2032	3	0.0226	0.0532	0.05
10	1	9 - 10	2033	3	0.0226	0.0532	0.05
11	1	10 - 11	2034	3	0.0226	0.0532	0.05
12	1	11 - 12	2035	3	0.0226	0.0532	0.05
13	1	12 - 13	2036	3	0.0226	0.0532	0.05
14	1	13 - 14	2037	3	0.0226	0.0532	0.05
15	1	14 - 15	2038	3	0.0226	0.0532	0.05
16	1	15 - 16	2039	3	0.0226	0.0532	0.05
17	1	16-17	2040	1	0.0226	0.0059	0.006
18	1	17-18	2041	1	0.0226	0.0059	0.006
19	1	18-19	2042	1	0.0226	0.0059	0.006
20	1	19-20	2043	1	0.0226	0.0059	0.006
21	1	20-21	2044	1	0.0226	0.0059	0.006
22	1	21-22	2045	1	0.0226	0.0059	0.006
23	1	22-23	2046	1	0.0226	0.0059	0.006
24	1	23-24	2047	1	0.0226	0.0059	0.006
25	1	24-25	2048	1	0.0226	0.0059	0.006
26	1	25-26	2049	1	0.0226	0.0059	0.006
27	1	26-27	2050	1	0.0226	0.0059	0.006
28	1	27-28	2051	1	0.0226	0.0059	0.006
29	1	28-29	2052	1	0.0226	0.0059	0.006
30	1	29-30	2053	1	0.0226	0.0059	0.006
Total Increased Cancer Risk						1.34	**1.34**

* Third trimester of pregnancy

3315 Sierra Road, San Jose, CA - Impacts from Rotten Robbie
Maximum Cancer Risk at Onsite MEI
1.5 meter receptor height

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
Benzene	1.00E-01

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Project Operation Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration	Cancer Risk (per million)	TOTAL
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**Benzene**	**Benzene**	
0	0.25	-0.25 - 0*	2026	10	0.1265	0.1563	0.16
1	1	0 - 1	2026	10	0.1265	1.8882	1.89
2	1	1 - 2	2027	10	0.1265	1.8882	1.89
3	1	2 - 3	2028	3	0.1265	0.2973	0.30
4	1	3 - 4	2029	3	0.1265	0.2973	0.30
5	1	4 - 5	2030	3	0.1265	0.2973	0.30
6	1	5 - 6	2031	3	0.1265	0.2973	0.30
7	1	6 - 7	2032	3	0.1265	0.2973	0.30
8	1	7 - 8	2033	3	0.1265	0.2973	0.30
9	1	8 - 9	2034	3	0.1265	0.2973	0.30
10	1	9 - 10	2035	3	0.1265	0.2973	0.30
11	1	10 - 11	2036	3	0.1265	0.2973	0.30
12	1	11 - 12	2037	3	0.1265	0.2973	0.30
13	1	12 - 13	2038	3	0.1265	0.2973	0.30
14	1	13 - 14	2039	3	0.1265	0.2973	0.30
15	1	14 - 15	2040	3	0.1265	0.2973	0.30
16	1	15 - 16	2041	3	0.1265	0.2973	0.30
17	1	16-17	2042	1	0.1265	0.0330	0.033
18	1	17-18	2043	1	0.1265	0.0330	0.033
19	1	18-19	2044	1	0.1265	0.0330	0.033
20	1	19-20	2045	1	0.1265	0.0330	0.033
21	1	20-21	2046	1	0.1265	0.0330	0.033
22	1	21-22	2047	1	0.1265	0.0330	0.033
23	1	22-23	2048	1	0.1265	0.0330	0.033
24	1	23-24	2049	1	0.1265	0.0330	0.033
25	1	24-25	2050	1	0.1265	0.0330	0.033
26	1	25-26	2051	1	0.1265	0.0330	0.033
27	1	26-27	2052	1	0.1265	0.0330	0.033
28	1	27-28	2053	1	0.1265	0.0330	0.033
29	1	28-29	2054	1	0.1265	0.0330	0.033
30	1	29-30	2055	1	0.1265	0.0330	0.033
Total Increased Cancer Risk						8.56	**8.56**

* Third trimester of pregnancy

3315 Sierra Road, San Jose, CA - Impacts from Rotten Robbie
Maximum Cancer Risk at 2nd Onsite MEI
1.5 meter receptor height

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air ($\mu g/m^3$)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
Benzene	1.00E-01

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Project Operation Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration	Cancer Risk (per million)	TOTAL
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**Benzene**	**Benzene**	
0	0.25	-0.25 - 0*	2026	10	0.1219	0.1507	0.15
1	1	0 - 1	2026	10	0.1219	1.8196	1.82
2	1	1 - 2	2027	10	0.1219	1.8196	1.82
3	1	2 - 3	2028	3	0.1219	0.2865	0.29
4	1	3 - 4	2029	3	0.1219	0.2865	0.29
5	1	4 - 5	2030	3	0.1219	0.2865	0.29
6	1	5 - 6	2031	3	0.1219	0.2865	0.29
7	1	6 - 7	2032	3	0.1219	0.2865	0.29
8	1	7 - 8	2033	3	0.1219	0.2865	0.29
9	1	8 - 9	2034	3	0.1219	0.2865	0.29
10	1	9 - 10	2035	3	0.1219	0.2865	0.29
11	1	10 - 11	2036	3	0.1219	0.2865	0.29
12	1	11 - 12	2037	3	0.1219	0.2865	0.29
13	1	12 - 13	2038	3	0.1219	0.2865	0.29
14	1	13 - 14	2039	3	0.1219	0.2865	0.29
15	1	14 - 15	2040	3	0.1219	0.2865	0.29
16	1	15 - 16	2041	3	0.1219	0.2865	0.29
17	1	16-17	2042	1	0.1219	0.0318	0.032
18	1	17-18	2043	1	0.1219	0.0318	0.032
19	1	18-19	2044	1	0.1219	0.0318	0.032
20	1	19-20	2045	1	0.1219	0.0318	0.032
21	1	20-21	2046	1	0.1219	0.0318	0.032
22	1	21-22	2047	1	0.1219	0.0318	0.032
23	1	22-23	2048	1	0.1219	0.0318	0.032
24	1	23-24	2049	1	0.1219	0.0318	0.032
25	1	24-25	2050	1	0.1219	0.0318	0.032
26	1	25-26	2051	1	0.1219	0.0318	0.032
27	1	26-27	2052	1	0.1219	0.0318	0.032
28	1	27-28	2053	1	0.1219	0.0318	0.032
29	1	28-29	2054	1	0.1219	0.0318	0.032
30	1	29-30	2055	1	0.1219	0.0318	0.032
Total Increased Cancer Risk						8.25	**8.25**

* Third trimester of pregnancy

3315 Sierra Road, San Jose, CA - Trips through Rotten Robbie - TACs
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptor (1.5 meter receptor height)

Emission Year	2024
Receptor Information	Construction MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction MEI location

Meteorological Conditions

BAAQMD San Jose International Airport Me	2013 - 2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Total TOG	Evaporative TOG
2013-2017	0.0000	0.0037	0.0056

Construction MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0007	0.0005	0.0002

3315 Sierra Road, San Jose, CA - Trips through Rotten Robbie Cancer Risk
Impacts at Construction Residential MEI - 1.5 meter receptor height
30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Total TOG**	**Evaporative TOG**	**DPM**	**Total TOG**	**Evaporative TOG**	
0	0.25	-0.25 - 0*	2024	10	0.0000	0.0037	0.0056	0.000	0.000	0.0000	0.00
1	1	0 - 1	2024	10	0.0000	0.0037	0.0056	0.002	0.003	0.0003	0.01
2	1	1 - 2	2025	10	0.0000	0.0037	0.0056	0.002	0.003	0.0003	0.01
3	1	2 - 3	2026	3	0.0000	0.0037	0.0056	0.000	0.001	0.0000	0.00
4	1	3 - 4	2027	3	0.0000	0.0037	0.0056	0.000	0.001	0.0000	0.00
5	1	4 - 5	2028	3	0.0000	0.0037	0.0056	0.000	0.001	0.0000	0.00
6	1	5 - 6	2029	3	0.0000	0.0037	0.0056	0.000	0.001	0.0000	0.00
7	1	6 - 7	2030	3	0.0000	0.0037	0.0056	0.000	0.001	0.0000	0.00
8	1	7 - 8	2031	3	0.0000	0.0037	0.0056	0.000	0.001	0.0000	0.00
9	1	8 - 9	2032	3	0.0000	0.0037	0.0056	0.000	0.001	0.0000	0.00
10	1	9 - 10	2033	3	0.0000	0.0037	0.0056	0.000	0.001	0.0000	0.00
11	1	10 - 11	2034	3	0.0000	0.0037	0.0056	0.000	0.001	0.0000	0.00
12	1	11 - 12	2035	3	0.0000	0.0037	0.0056	0.000	0.001	0.0000	0.00
13	1	12 - 13	2036	3	0.0000	0.0037	0.0056	0.000	0.001	0.0000	0.00
14	1	13 - 14	2037	3	0.0000	0.0037	0.0056	0.000	0.001	0.0000	0.00
15	1	14 - 15	2038	3	0.0000	0.0037	0.0056	0.000	0.001	0.0000	0.00
16	1	15 - 16	2039	3	0.0000	0.0037	0.0056	0.000	0.001	0.0000	0.00
17	1	16-17	2040	1	0.0000	0.0037	0.0056	0.000	0.000	0.0000	0.00
18	1	17-18	2041	1	0.0000	0.0037	0.0056	0.000	0.000	0.0000	0.00
19	1	18-19	2042	1	0.0000	0.0037	0.0056	0.000	0.000	0.0000	0.00
20	1	19-20	2043	1	0.0000	0.0037	0.0056	0.000	0.000	0.0000	0.00
21	1	20-21	2044	1	0.0000	0.0037	0.0056	0.000	0.000	0.0000	0.00
22	1	21-22	2045	1	0.0000	0.0037	0.0056	0.000	0.000	0.0000	0.00
23	1	22-23	2046	1	0.0000	0.0037	0.0056	0.000	0.000	0.0000	0.00
24	1	23-24	2047	1	0.0000	0.0037	0.0056	0.000	0.000	0.0000	0.00
25	1	24-25	2048	1	0.0000	0.0037	0.0056	0.000	0.000	0.0000	0.00
26	1	25-26	2049	1	0.0000	0.0037	0.0056	0.000	0.000	0.0000	0.00
27	1	26-27	2050	1	0.0000	0.0037	0.0056	0.000	0.000	0.0000	0.00
28	1	27-28	2051	1	0.0000	0.0037	0.0056	0.000	0.000	0.0000	0.00
29	1	28-29	2052	1	0.0000	0.0037	0.0056	0.000	0.000	0.0000	0.00
30	1	29-30	2053	1	0.0000	0.0037	0.0056	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.01	0.016	0.001	**0.02**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00000	0.00	0.00

* Third trimester of pregnancy

3315 Sierra Road, San Jose, CA - Rotten Robbie Trips on Piedmont Rd - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptor (1.5 meter receptor height)

Emission Year	2024
Receptor Information	Construction MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction MEI location

Meteorological Conditions

BAAQMD San Jose International Airport Me	2013 - 2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0000	0.0021	0.0030

Construction MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0021	0.0020	0.0001

3315 Sierra Road, San Jose, CA - Rotten Robbie Trips on Piedmont Rd Cancer Risk
Impacts at Construction Residential MEI - 1.5 meter receptor height
30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**TOTAL**
0	0.25	-0.25 - 0*	2024	10	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
1	1	0 - 1	2024	10	0.0000	0.0021	0.0030	0.002	0.002	0.0002	0.00
2	1	1 - 2	2025	10	0.0000	0.0021	0.0030	0.002	0.002	0.0002	0.00
3	1	2 - 3	2026	3	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
4	1	3 - 4	2027	3	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
5	1	4 - 5	2028	3	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
6	1	5 - 6	2029	3	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
7	1	6 - 7	2030	3	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
8	1	7 - 8	2031	3	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
9	1	8 - 9	2032	3	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
10	1	9 - 10	2033	3	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
11	1	10 - 11	2034	3	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
12	1	11 - 12	2035	3	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
13	1	12 - 13	2036	3	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
14	1	13 - 14	2037	3	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
15	1	14 - 15	2038	3	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
16	1	15 - 16	2039	3	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
17	1	16-17	2040	1	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
18	1	17-18	2041	1	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
19	1	18-19	2042	1	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
20	1	19-20	2043	1	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
21	1	20-21	2044	1	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
22	1	21-22	2045	1	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
23	1	22-23	2046	1	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
24	1	23-24	2047	1	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
25	1	24-25	2048	1	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
26	1	25-26	2049	1	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
27	1	26-27	2050	1	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
28	1	27-28	2051	1	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
29	1	28-29	2052	1	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
30	1	29-30	2053	1	0.0000	0.0021	0.0030	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.01	0.009	0.001	**0.02**

Maximum Hazard Index	**Maximum Fugitive PM2.5**	**Total PM2.5**
0.00000	0.00	0.00

* Third trimester of pregnancy

3315 Sierra Road, San Jose, CA - Rotten Robbie Trips on Sierra Rd - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Construction MEI Receptor (1.5 meter receptor height)

Emission Year	2024
Receptor Information	Construction MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction MEI location

Meteorological Conditions

BAAQMD San Jose International Airport Me	2013 - 2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0000	0.0124	0.0176

Construction MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0123	0.0116	0.0007

3315 Sierra Road, San Jose, CA - Rotten Robbie Trips on Sierra Rd Cancer Risk
Impacts at Construction Residential MEI - 1.5 meter receptor height
30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	
0	0.25	-0.25 - 0*	2024	10	0.0000	0.0124	0.0176	0.000	0.001	0.0001	0.00
1	1	0 - 1	2024	10	0.0000	0.0124	0.0176	0.005	0.012	0.0010	0.02
2	1	1 - 2	2025	10	0.0000	0.0124	0.0176	0.005	0.012	0.0010	0.02
3	1	2 - 3	2026	3	0.0000	0.0124	0.0176	0.001	0.002	0.0002	0.00
4	1	3 - 4	2027	3	0.0000	0.0124	0.0176	0.001	0.002	0.0002	0.00
5	1	4 - 5	2028	3	0.0000	0.0124	0.0176	0.001	0.002	0.0002	0.00
6	1	5 - 6	2029	3	0.0000	0.0124	0.0176	0.001	0.002	0.0002	0.00
7	1	6 - 7	2030	3	0.0000	0.0124	0.0176	0.001	0.002	0.0002	0.00
8	1	7 - 8	2031	3	0.0000	0.0124	0.0176	0.001	0.002	0.0002	0.00
9	1	8 - 9	2032	3	0.0000	0.0124	0.0176	0.001	0.002	0.0002	0.00
10	1	9 - 10	2033	3	0.0000	0.0124	0.0176	0.001	0.002	0.0002	0.00
11	1	10 - 11	2034	3	0.0000	0.0124	0.0176	0.001	0.002	0.0002	0.00
12	1	11 - 12	2035	3	0.0000	0.0124	0.0176	0.001	0.002	0.0002	0.00
13	1	12 - 13	2036	3	0.0000	0.0124	0.0176	0.001	0.002	0.0002	0.00
14	1	13 - 14	2037	3	0.0000	0.0124	0.0176	0.001	0.002	0.0002	0.00
15	1	14 - 15	2038	3	0.0000	0.0124	0.0176	0.001	0.002	0.0002	0.00
16	1	15 - 16	2039	3	0.0000	0.0124	0.0176	0.001	0.002	0.0002	0.00
17	1	16-17	2040	1	0.0000	0.0124	0.0176	0.000	0.000	0.0000	0.00
18	1	17-18	2041	1	0.0000	0.0124	0.0176	0.000	0.000	0.0000	0.00
19	1	18-19	2042	1	0.0000	0.0124	0.0176	0.000	0.000	0.0000	0.00
20	1	19-20	2043	1	0.0000	0.0124	0.0176	0.000	0.000	0.0000	0.00
21	1	20-21	2044	1	0.0000	0.0124	0.0176	0.000	0.000	0.0000	0.00
22	1	21-22	2045	1	0.0000	0.0124	0.0176	0.000	0.000	0.0000	0.00
23	1	22-23	2046	1	0.0000	0.0124	0.0176	0.000	0.000	0.0000	0.00
24	1	23-24	2047	1	0.0000	0.0124	0.0176	0.000	0.000	0.0000	0.00
25	1	24-25	2048	1	0.0000	0.0124	0.0176	0.000	0.000	0.0000	0.00
26	1	25-26	2049	1	0.0000	0.0124	0.0176	0.000	0.000	0.0000	0.00
27	1	26-27	2050	1	0.0000	0.0124	0.0176	0.000	0.000	0.0000	0.00
28	1	27-28	2051	1	0.0000	0.0124	0.0176	0.000	0.000	0.0000	0.00
29	1	28-29	2052	1	0.0000	0.0124	0.0176	0.000	0.000	0.0000	0.00
30	1	29-30	2053	1	0.0000	0.0124	0.0176	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.02	0.053	0.004	**0.08**

Maximum Hazard Index	**Maximum Fugitive PM2.5**	**Total PM2.5**
0.00001	0.01	0.01

* Third trimester of pregnancy

3315 Sierra Road, San Jose, CA - Trips through Rotten Robbie - TACs
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Onsite MEI Receptor (1.5 meter receptor height)

Emission Year	2026
Receptor Information	Construction MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Construction MEI location

Meteorological Conditions

BAAQMD San Jose International Airport Me	2013 - 2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0000	0.0273	0.0464

Construction MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0059	0.0041	0.0018

3315 Sierra Road, San Jose, CA - Trips through Rotten Robbie Cancer Risk
Impacts at Onsite Residential MEI - 1.5 meter receptor height
30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Total TOG**	**Evaporative TOG**	**DPM**	**Total TOG**	**Evaporative TOG**	
0	0.25	-0.25 - 0*	2024	10	0.0000	0.0273	0.0464	0.000	0.002	0.0002	0.00
1	1	0 - 1	2024	10	0.0000	0.0273	0.0464	0.005	0.026	0.0026	0.03
2	1	1 - 2	2025	10	0.0000	0.0273	0.0464	0.005	0.026	0.0026	0.03
3	1	2 - 3	2026	3	0.0000	0.0273	0.0464	0.001	0.004	0.0004	0.01
4	1	3 - 4	2027	3	0.0000	0.0273	0.0464	0.001	0.004	0.0004	0.01
5	1	4 - 5	2028	3	0.0000	0.0273	0.0464	0.001	0.004	0.0004	0.01
6	1	5 - 6	2029	3	0.0000	0.0273	0.0464	0.001	0.004	0.0004	0.01
7	1	6 - 7	2030	3	0.0000	0.0273	0.0464	0.001	0.004	0.0004	0.01
8	1	7 - 8	2031	3	0.0000	0.0273	0.0464	0.001	0.004	0.0004	0.01
9	1	8 - 9	2032	3	0.0000	0.0273	0.0464	0.001	0.004	0.0004	0.01
10	1	9 - 10	2033	3	0.0000	0.0273	0.0464	0.001	0.004	0.0004	0.01
11	1	10 - 11	2034	3	0.0000	0.0273	0.0464	0.001	0.004	0.0004	0.01
12	1	11 - 12	2035	3	0.0000	0.0273	0.0464	0.001	0.004	0.0004	0.01
13	1	12 - 13	2036	3	0.0000	0.0273	0.0464	0.001	0.004	0.0004	0.01
14	1	13 - 14	2037	3	0.0000	0.0273	0.0464	0.001	0.004	0.0004	0.01
15	1	14 - 15	2038	3	0.0000	0.0273	0.0464	0.001	0.004	0.0004	0.01
16	1	15 - 16	2039	3	0.0000	0.0273	0.0464	0.001	0.004	0.0004	0.01
17	1	16-17	2040	1	0.0000	0.0273	0.0464	0.000	0.000	0.0000	0.00
18	1	17-18	2041	1	0.0000	0.0273	0.0464	0.000	0.000	0.0000	0.00
19	1	18-19	2042	1	0.0000	0.0273	0.0464	0.000	0.000	0.0000	0.00
20	1	19-20	2043	1	0.0000	0.0273	0.0464	0.000	0.000	0.0000	0.00
21	1	20-21	2044	1	0.0000	0.0273	0.0464	0.000	0.000	0.0000	0.00
22	1	21-22	2045	1	0.0000	0.0273	0.0464	0.000	0.000	0.0000	0.00
23	1	22-23	2046	1	0.0000	0.0273	0.0464	0.000	0.000	0.0000	0.00
24	1	23-24	2047	1	0.0000	0.0273	0.0464	0.000	0.000	0.0000	0.00
25	1	24-25	2048	1	0.0000	0.0273	0.0464	0.000	0.000	0.0000	0.00
26	1	25-26	2049	1	0.0000	0.0273	0.0464	0.000	0.000	0.0000	0.00
27	1	26-27	2050	1	0.0000	0.0273	0.0464	0.000	0.000	0.0000	0.00
28	1	27-28	2051	1	0.0000	0.0273	0.0464	0.000	0.000	0.0000	0.00
29	1	28-29	2052	1	0.0000	0.0273	0.0464	0.000	0.000	0.0000	0.00
30	1	29-30	2053	1	0.0000	0.0273	0.0464	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.02	0.116	0.012	**0.15**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00001	0.00	0.01

* Third trimester of pregnancy

3315 Sierra Road, San Jose, CA - Rotten Robbie Trips on Piedmont Rd - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Onsite MEI Receptor (1.5 meter receptor height)

Emission Year	2026
Receptor Information	Onsite MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Onsite MEI location

Meteorological Conditions

BAAQMD San Jose International Airport Me	2013 - 2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0000	0.0045	0.0071

Construction MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0053	0.0050	0.0003

3315 Sierra Road, San Jose, CA - Rotten Robbie Trips on Piedmont Rd Cancer Risk
Impacts at Onsite Residential MEI - 1.5 meter receptor height
30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	
0	0.25	-0.25 - 0*	2026	10	0.0000	0.0045	0.0071	0.000	0.000	0.0000	0.00
1	1	0 - 1	2026	10	0.0000	0.0045	0.0071	0.002	0.004	0.0004	0.01
2	1	1 - 2	2027	10	0.0000	0.0045	0.0071	0.002	0.004	0.0004	0.01
3	1	2 - 3	2028	3	0.0000	0.0045	0.0071	0.000	0.001	0.0001	0.00
4	1	3 - 4	2029	3	0.0000	0.0045	0.0071	0.000	0.001	0.0001	0.00
5	1	4 - 5	2030	3	0.0000	0.0045	0.0071	0.000	0.001	0.0001	0.00
6	1	5 - 6	2031	3	0.0000	0.0045	0.0071	0.000	0.001	0.0001	0.00
7	1	6 - 7	2032	3	0.0000	0.0045	0.0071	0.000	0.001	0.0001	0.00
8	1	7 - 8	2033	3	0.0000	0.0045	0.0071	0.000	0.001	0.0001	0.00
9	1	8 - 9	2034	3	0.0000	0.0045	0.0071	0.000	0.001	0.0001	0.00
10	1	9 - 10	2035	3	0.0000	0.0045	0.0071	0.000	0.001	0.0001	0.00
11	1	10 - 11	2036	3	0.0000	0.0045	0.0071	0.000	0.001	0.0001	0.00
12	1	11 - 12	2037	3	0.0000	0.0045	0.0071	0.000	0.001	0.0001	0.00
13	1	12 - 13	2038	3	0.0000	0.0045	0.0071	0.000	0.001	0.0001	0.00
14	1	13 - 14	2039	3	0.0000	0.0045	0.0071	0.000	0.001	0.0001	0.00
15	1	14 - 15	2040	3	0.0000	0.0045	0.0071	0.000	0.001	0.0001	0.00
16	1	15 - 16	2041	3	0.0000	0.0045	0.0071	0.000	0.001	0.0001	0.00
17	1	16-17	2042	1	0.0000	0.0045	0.0071	0.000	0.000	0.0000	0.00
18	1	17-18	2043	1	0.0000	0.0045	0.0071	0.000	0.000	0.0000	0.00
19	1	18-19	2044	1	0.0000	0.0045	0.0071	0.000	0.000	0.0000	0.00
20	1	19-20	2045	1	0.0000	0.0045	0.0071	0.000	0.000	0.0000	0.00
21	1	20-21	2046	1	0.0000	0.0045	0.0071	0.000	0.000	0.0000	0.00
22	1	21-22	2047	1	0.0000	0.0045	0.0071	0.000	0.000	0.0000	0.00
23	1	22-23	2048	1	0.0000	0.0045	0.0071	0.000	0.000	0.0000	0.00
24	1	23-24	2049	1	0.0000	0.0045	0.0071	0.000	0.000	0.0000	0.00
25	1	24-25	2050	1	0.0000	0.0045	0.0071	0.000	0.000	0.0000	0.00
26	1	25-26	2051	1	0.0000	0.0045	0.0071	0.000	0.000	0.0000	0.00
27	1	26-27	2052	1	0.0000	0.0045	0.0071	0.000	0.000	0.0000	0.00
28	1	27-28	2053	1	0.0000	0.0045	0.0071	0.000	0.000	0.0000	0.00
29	1	28-29	2054	1	0.0000	0.0045	0.0071	0.000	0.000	0.0000	0.00
30	1	29-30	2055	1	0.0000	0.0045	0.0071	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.01	0.019	0.002	**0.03**

Maximum Hazard Index	Maximum Fugitive PM2.5	Total PM2.5
0.00000	0.00	0.01

* Third trimester of pregnancy

3315 Sierra Road, San Jose, CA - Rotten Robbie Trips on Sierra Rd - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
at Onsite MEI Receptor (1.5 meter receptor height)

Emission Year	2026
Receptor Information	Onsite MEI receptor
Number of Receptors	1
Receptor Height	1.5 meters
Receptor Distances	At Onsite MEI location

Meteorological Conditions

BAAQMD San Jose International Airport Me	2013 - 2017
Land Use Classification	Urban
Wind Speed	Variable
Wind Direction	Variable

Construction MEI Cancer Risk Maximum Concentrations

Meteorological Data Years	Concentration (µg/m3)*		
	DPM	Exhaust TOG	Evaporative TOG
2013-2017	0.0000	0.0088	0.0140

Construction MEI PM2.5 Maximum Concentrations

Meteorological Data Years	PM2.5 Concentration (µg/m3)*		
	Total PM2.5	Fugitive PM2.5	Vehicle PM2.5
2013-2017	0.0130	0.0098	0.0033

3315 Sierra Road, San Jose, CA - Rotten Robbie Trips on Sierra Rd Cancer Risk
Impacts at Onsite Residential MEI - 1.5 meter receptor height
30 Year Residential Exposure

Cancer Risk Calculation Method

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor $(mg/kg\text{-}day)^{-1}$
ASF = Age sensitivity factor for specified age group
ED = Exposure duration (years)
AT = Averaging time for lifetime cancer risk (years)
FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10^{-6}

Where: C_{air} = concentration in air $(\mu g/m^3)$
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10^{-6} = Conversion factor

Cancer Potency Factors $(mg/kg\text{-}day)^{-1}$

TAC	CPF
DPM	1.10E+00
Vehicle TOG Exhaust	6.28E-03
Vehicle TOG Evaporative	3.70E-04

Values

	Infant/Child			Adult
Age -->	**3rd Trimester**	**0 - 2**	**2 - 16**	**16 - 30**
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Maximum - Exposure Information					Concentration (ug/m3)			Cancer Risk (per million)			TOTAL
Exposure Year	**Exposure Duration (years)**	**Age**	**Year**	**Age Sensitivity Factor**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	**DPM**	**Exhaust TOG**	**Evaporative TOG**	
0	0.25	-0.25 - 0*	2026	10	0.0000	0.0088	0.0140	0.000	0.001	0.0001	0.00
1	1	0 - 1	2026	10	0.0000	0.0088	0.0140	0.005	0.008	0.0008	0.01
2	1	1 - 2	2027	10	0.0000	0.0088	0.0140	0.005	0.008	0.0008	0.01
3	1	2 - 3	2028	3	0.0000	0.0088	0.0140	0.001	0.001	0.0001	0.00
4	1	3 - 4	2029	3	0.0000	0.0088	0.0140	0.001	0.001	0.0001	0.00
5	1	4 - 5	2030	3	0.0000	0.0088	0.0140	0.001	0.001	0.0001	0.00
6	1	5 - 6	2031	3	0.0000	0.0088	0.0140	0.001	0.001	0.0001	0.00
7	1	6 - 7	2032	3	0.0000	0.0088	0.0140	0.001	0.001	0.0001	0.00
8	1	7 - 8	2033	3	0.0000	0.0088	0.0140	0.001	0.001	0.0001	0.00
9	1	8 - 9	2034	3	0.0000	0.0088	0.0140	0.001	0.001	0.0001	0.00
10	1	9 - 10	2035	3	0.0000	0.0088	0.0140	0.001	0.001	0.0001	0.00
11	1	10 - 11	2036	3	0.0000	0.0088	0.0140	0.001	0.001	0.0001	0.00
12	1	11 - 12	2037	3	0.0000	0.0088	0.0140	0.001	0.001	0.0001	0.00
13	1	12 - 13	2038	3	0.0000	0.0088	0.0140	0.001	0.001	0.0001	0.00
14	1	13 - 14	2039	3	0.0000	0.0088	0.0140	0.001	0.001	0.0001	0.00
15	1	14 - 15	2040	3	0.0000	0.0088	0.0140	0.001	0.001	0.0001	0.00
16	1	15 - 16	2041	3	0.0000	0.0088	0.0140	0.001	0.001	0.0001	0.00
17	1	16-17	2042	1	0.0000	0.0088	0.0140	0.000	0.000	0.0000	0.00
18	1	17-18	2043	1	0.0000	0.0088	0.0140	0.000	0.000	0.0000	0.00
19	1	18-19	2044	1	0.0000	0.0088	0.0140	0.000	0.000	0.0000	0.00
20	1	19-20	2045	1	0.0000	0.0088	0.0140	0.000	0.000	0.0000	0.00
21	1	20-21	2046	1	0.0000	0.0088	0.0140	0.000	0.000	0.0000	0.00
22	1	21-22	2047	1	0.0000	0.0088	0.0140	0.000	0.000	0.0000	0.00
23	1	22-23	2048	1	0.0000	0.0088	0.0140	0.000	0.000	0.0000	0.00
24	1	23-24	2049	1	0.0000	0.0088	0.0140	0.000	0.000	0.0000	0.00
25	1	24-25	2050	1	0.0000	0.0088	0.0140	0.000	0.000	0.0000	0.00
26	1	25-26	2051	1	0.0000	0.0088	0.0140	0.000	0.000	0.0000	0.00
27	1	26-27	2052	1	0.0000	0.0088	0.0140	0.000	0.000	0.0000	0.00
28	1	27-28	2053	1	0.0000	0.0088	0.0140	0.000	0.000	0.0000	0.00
29	1	28-29	2054	1	0.0000	0.0088	0.0140	0.000	0.000	0.0000	0.00
30	1	29-30	2055	1	0.0000	0.0088	0.0140	0.000	0.000	0.0000	0.00
Total Increased Cancer Risk								0.02	0.037	0.003	**0.06**

Hazard Index	**Maximum Fugitive PM2.5**	**Total PM2.5**
0.00001	0.01	0.01

* Third trimester of pregnancy

Annual Fuel (gal)	Source	CARB TOG EF (lb/1000 gal)[1]	CARB TOG (lbs/year)	CARB TOG Fraction	BAAQMD TOG (lbs/yr)	Pump Islands	Tanks
1,160,000						6	2
	Fueling; Non-ORVR	0.42	63.34	0.1101095	1448.82	Volume Sources	
	& ORVR[2]	0.021	21.19	0.0368443	484.80	14	
	Tank Filling	0.15	174.00	0.3024986	3980.28		
	Tank breathing	0.024	27.84	0.0483998	636.84		
	Spillage	0.24	278.40	0.4839978	6368.44		
	Fueling	0.009	10.44	0.0181499	238.82		
		TOTAL	575.21	1	13158.00		
			0.2876	1.5978033			

			Benzene[3]					
	TOG (lbs/year)	Operation (hours/day)	% of TOG	lbs/yr	lbs/day	lbs/hr	(g/s)	Per Volume Source or Point Source (g/s)
Refuel	94.97	24	0.3	0.28	0.0007806	3.252E-05	4.09792E-06	2.92708E-07
Spill	278.40	24	1	2.78	0.0076274	0.0003178	4.00432E-05	2.86023E-06
UST Fill	174.00	24	0.3	0.52	0.0014301	5.959E-05	7.50809E-06	3.75405E-06
UTS Breath	27.84	24	0.3	0.08352	0.0002288	9.534E-06	1.20129E-06	1.20129E-06
TOTAL				3.67	0.0100669	0.0004195	5.28505E-05	

1. Emission factors from CARB "Revised Emissions Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities". Dec
2. Fueling emissions based on CARB data for 2020 of 87% of vehicles use ORVR (CARB, 2013).
3. CAPCOA Air Toxics "Hot Spots" Program, Gasoline Service Station Industrywide Risk Assessment Guidelines, November 1997.

4. Emission factors are derived from SJAPCD Gasoline Dispensing Operations VOC Calculator and Appendix A in the 1997 CAPCOA Air Toxics "H

Gasoline Dispensing Operation Inputs	Vehicle Spillage	Vehicle Refuel	Breathing lc	Loading loss
SOURCE ID:	2.3. 1. SPILL	2. REFUEL	3. BREATHE	4. LOAD
EMISSION FACTOR:	Z1 SU Gasoline Dispe	Z1 SU Gasoline	Z1 SU Gasol	Z1 SU Gasoline Dispensing Op VOC Vapor
SOURCE TYPE:	VOLUME	VOLUME	POINT	POINT
RELEASE HEIGHT:	0 M	1 M	3.66 M	3.66 M
EMISSION RATE:	1 G/S	1 G/S	1 G/S	1 G/S
LENGTH OF SIDE:	6.5 M	6.5 M	—	—
INITIAL LATERAL DIMENSION:	1.51 M	1.51 M	—	—
INITIAL VERTICAL DIMENSION:	1.86 M	1.86 M	—	—
GAS EXIT TEMPERATURE:	—	—	288.7 1 K	291K
STACK INSIDE DIAMETER:	—	—	0.0508 M	.0508 M
GAS EXIT VELOCITY:	—	—	.000106 M/	0.00035 M/S
GAS EXIT FLOW RATE:	—	—	.0005 CFM	0.0015 CFM

Annual Fuel (gal)	Source	CARB TOG EF (lb/1000 gal)[1]	CARB TOG (lbs/year)	CARB TOG Fraction	BAAQMD TOG (lbs/yr)	Pump Islands	Tanks
14,500,000						6	2
	Fueling; Non-ORVR	0.42	791.70	0.1101095	1448.82	Volume Sources	
	& ORVR[2]	0.021	264.92	0.0368443	484.80	12	
	Tank Filling	0.15	2,175.00	0.3024986	3980.28		
	Tank breathing	0.024	348.00	0.0483998	636.84		
	Spillage	0.24	3,480.00	0.4839978	6368.44		
	Fueling	0.009	130.50	0.0181499	238.82		
		TOTAL	7,190.12	1	13158.00		
			3.5951	19.972542			

			Benzene[3]					
	TOG (lbs/year)	Operation (hours/day)	% of TOG	lbs/yr	lbs/day	lbs/hr	(g/s)	Per Volume Source or Point Source (g/s)
Refuel	1187.12	24	0.3	3.56	0.0097571	0.0004065	5.1224E-05	4.26866E-06
Spill	3480.00	24	1	34.80	0.0953425	0.0039726	0.00050054	4.17116E-05
UST Fill	2175.00	24	0.3	6.53	0.0178767	0.0007449	9.38512E-05	4.69256E-05
UTS Breath	348.00	24	0.3	1.044	0.0028603	0.0001192	1.50162E-05	1.50162E-05
TOTAL				45.93	0.1258366	0.0052432	0.000660631	

1. Emission factors from CARB "Revised Emissions Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities". December 23, 2013 (CARB, 2013). Assumes use of enhanced vapor recovery systems.

2. Fueling emissions based on CARB data for 2020 of 87% of vehicles use ORVR (CARB, 2013).

3. CAPCOA Air Toxics "Hot Spots" Program, Gasoline Service Station Industrywide Risk Assessment Guidelines, November 1997.

4. Emission factors are derived from SJAPCD Gasoline Dispensing Operations VOC Calculator and Appendix A in the 1997 CAPCOA Air Toxics "Hot Spots" Program document, Gasoline Service Station Industrywide Risk Asessment Guidelines.

Gasoline Dispensing Operation Inputs	Vehicle Spillage	Vehicle Refuel	Breathing lc	Loading loss
SOURCE ID: 2.3.	1. SPILL	2. REFUEL	3. BREATHE	4. LOAD
EMISSION FACTOR:	Z1 SU Gasoline Dispe	Z1 SU Gasoline	Z1 SU Gasol	Z1 SU Gasoline Dispensing Op VOC Vapor
SOURCE TYPE:	VOLUME	VOLUME	POINT	POINT
RELEASE HEIGHT:	0 M	1 M	3.66 M	3.66 M
EMISSION RATE:	1 G/S	1 G/S	1 G/S	1 G/S
LENGTH OF SIDE:	6.5 M	6.5 M	—	—
INITIAL LATERAL DIMENSION:	1.51 M	1.51 M	—	—
INITIAL VERTICAL DIMENSION:	1.86 M	1.86 M	—	—
GAS EXIT TEMPERATURE:	—	—	288.7 1 K	291K
STACK INSIDE DIAMETER:	—	—	0.0508 M	.0508 M
GAS EXIT VELOCITY:	—	—	.000106 M/	0.00035 M/S
GAS EXIT FLOW RATE:	—	—	.0005 CFM	0.0015 CFM

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Gas Station
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_GAS	Gas Station Trips From Sierra Road	NB	1	70.1	0.04	9.7	31.7	3.4	5	1,324	677	7,287	2.663E-10	1.963E-10	6.8	3.16
DPM_SB_GAS	Gas Station Trips From Piedmont Road	SB	1	59.6	0.04	9.7	31.7	3.4	5	1,324	576	6,196	2.663E-10	1.963E-10	6.8	3.16
									Total	2,648						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	5			
Emissions per Vehicle (g/VMT)	0.00027			

Emisson Factors from CT-EMFAC2021

2024 Hourly Traffic Volumes and DPM Emissions - DPM_NB_GAS

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.90%	52	1.69E-07	9	6.42%	85	2.78E-07	17	5.62%	74	2.43E-07
2	2.58%	34	1.12E-07	10	7.34%	97	3.17E-07	18	3.27%	43	1.41E-07
3	2.87%	38	1.24E-07	11	6.42%	85	2.78E-07	19	2.35%	31	1.02E-07
4	3.32%	44	1.44E-07	12	6.88%	91	2.97E-07	20	0.86%	11	3.72E-08
5	2.18%	29	9.42E-08	13	6.25%	83	2.70E-07	21	3.09%	41	1.34E-07
6	3.38%	45	1.46E-07	14	6.19%	82	2.68E-07	22	4.13%	55	1.78E-07
7	6.02%	80	2.60E-07	15	5.10%	68	2.21E-07	23	2.52%	33	1.09E-07
8	4.64%	61	2.01E-07	16	3.78%	50	1.64E-07	24	0.92%	12	3.97E-08
								Total		1,324	

2024 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_GAS

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.90%	52	1.43E-07	9	6.42%	85	2.36E-07	17	5.62%	74	2.07E-07
2	2.58%	34	9.48E-08	10	7.34%	97	2.70E-07	18	3.27%	43	1.20E-07
3	2.87%	38	1.05E-07	11	6.42%	85	2.36E-07	19	2.35%	31	8.64E-08
4	3.32%	44	1.22E-07	12	6.88%	91	2.53E-07	20	0.86%	11	3.16E-08
5	2.18%	29	8.01E-08	13	6.25%	83	2.30E-07	21	3.09%	41	1.14E-07
6	3.38%	45	1.24E-07	14	6.19%	82	2.28E-07	22	4.13%	55	1.52E-07
7	6.02%	80	2.21E-07	15	5.10%	68	1.88E-07	23	2.52%	33	9.27E-08
8	4.64%	61	1.71E-07	16	3.78%	50	1.39E-07	24	0.92%	12	3.37E-08
								Total		1,324	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Gas Station
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM2.5_NB_GAS	Gas Station Trips From Sierra Road	NB	1	70.1	0.04	9.7	32	1.3	5	1,324	677	7,287	8.25E-09	6.08E-09	2.6	1.21
PM2.5_SB_GAS	Gas Station Trips From Piedmont Road	SB	1	59.6	0.04	9.7	32	1.3	5	1,324	576	6,196	8.25E-09	6.08E-09	2.6	1.21
									Total	2,648						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	5			
Emissions per Vehicle (g/VMT)	0.008363			

Emisson Factors from CT-EMFAC2021

2024 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_GAS

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	15	1.54E-06	9	7.11%	94	9.53E-06	17	7.39%	98	9.90E-06
2	0.42%	6	5.60E-07	10	4.39%	58	5.88E-06	18	8.18%	108	1.10E-05
3	0.41%	5	5.44E-07	11	4.66%	62	6.25E-06	19	5.70%	75	7.63E-06
4	0.26%	3	3.50E-07	12	5.89%	78	7.89E-06	20	4.27%	57	5.73E-06
5	0.50%	7	6.70E-07	13	6.15%	81	8.24E-06	21	3.26%	43	4.36E-06
6	0.90%	12	1.21E-06	14	6.04%	80	8.09E-06	22	3.30%	44	4.42E-06
7	3.79%	50	5.08E-06	15	7.01%	93	9.40E-06	23	2.46%	33	3.30E-06
8	7.76%	103	1.04E-05	16	7.14%	95	9.56E-06	24	1.87%	25	2.50E-06
								Total		1,324	

2024 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_GAS

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	15	1.31E-06	9	7.11%	94	8.10E-06	17	7.39%	98	8.41E-06
2	0.42%	6	4.76E-07	10	4.39%	58	5.00E-06	18	8.18%	108	9.31E-06
3	0.41%	5	4.63E-07	11	4.66%	62	5.31E-06	19	5.70%	75	6.49E-06
4	0.26%	3	2.98E-07	12	5.89%	78	6.71E-06	20	4.27%	57	4.87E-06
5	0.50%	7	5.69E-07	13	6.15%	81	7.01E-06	21	3.26%	43	3.71E-06
6	0.90%	12	1.03E-06	14	6.04%	80	6.88E-06	22	3.30%	44	3.76E-06
7	3.79%	50	4.32E-06	15	7.01%	93	7.99E-06	23	2.46%	33	2.80E-06
8	7.76%	103	8.85E-06	16	7.14%	95	8.13E-06	24	1.87%	25	2.13E-06
								Total		1,324	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Gas Station
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_NB_GAS	Gas Station Trips From Sierra Road	NB	1	70.1	0.04	9.7	32	1.3	5	1,324	677	7,287	1.36E-07	1.00E-07	2.6	1.21
TEXH_SB_GAS	Gas Station Trips From Piedmont Road	SB	1	59.6	0.04	9.7	32	1.3	5	1,324	576	6,196	1.36E-07	1.00E-07	2.6	1.21
									Total	2,648						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	5			
Emissions per Vehicle (g/VMT)	0.13815			

Emisson Factors from CT-EMFAC2021

2024 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_GAS

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	15	2.55E-05	9	7.11%	94	1.57E-04	17	7.39%	98	1.63E-04
2	0.42%	6	9.25E-06	10	4.39%	58	9.71E-05	18	8.18%	108	1.81E-04
3	0.41%	5	8.99E-06	11	4.66%	62	1.03E-04	19	5.70%	75	1.26E-04
4	0.26%	3	5.79E-06	12	5.89%	78	1.30E-04	20	4.27%	57	9.46E-05
5	0.50%	7	1.11E-05	13	6.15%	81	1.36E-04	21	3.26%	43	7.21E-05
6	0.90%	12	2.00E-05	14	6.04%	80	1.34E-04	22	3.30%	44	7.30E-05
7	3.79%	50	8.39E-05	15	7.01%	93	1.55E-04	23	2.46%	33	5.45E-05
8	7.76%	103	1.72E-04	16	7.14%	95	1.58E-04	24	1.87%	25	4.13E-05
								Total		1,324	

2024 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_GAS

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	15	2.17E-05	9	7.11%	94	1.34E-04	17	7.39%	98	1.39E-04
2	0.42%	6	7.86E-06	10	4.39%	58	8.25E-05	18	8.18%	108	1.54E-04
3	0.41%	5	7.64E-06	11	4.66%	62	8.78E-05	19	5.70%	75	1.07E-04
4	0.26%	3	4.92E-06	12	5.89%	78	1.11E-04	20	4.27%	57	8.04E-05
5	0.50%	7	9.40E-06	13	6.15%	81	1.16E-04	21	3.26%	43	6.13E-05
6	0.90%	12	1.70E-05	14	6.04%	80	1.14E-04	22	3.30%	44	6.20E-05
7	3.79%	50	7.13E-05	15	7.01%	93	1.32E-04	23	2.46%	33	4.63E-05
8	7.76%	103	1.46E-04	16	7.14%	95	1.34E-04	24	1.87%	25	3.51E-05
								Total		1,324	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Gas Station
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_NB_GAS	Gas Station Trips From Sierra Road	NB	1	70.1	0.04	9.7	32	1.3	5	1,324	677	7,287	2.05E-07	1.51E-07	2.6	1.21
TEVAP_SB_GAS	Gas Station Trips From Piedmont Road	SB	1	59.6	0.04	9.7	32	1.3	5	1,324	576	6,196	2.05E-07	1.51E-07	2.6	1.21
									Total	2,648						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	5			
Emissions per Vehicle per Hour (g/hour)	1.03915			
Emissions per Vehicle per Mile (g/VMT)	0.20783			

Emisson Factors from CT-EMFAC2021

2024 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_GAS

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	15	3.83E-05	9	7.11%	94	2.37E-04	17	7.39%	98	2.46E-04
2	0.42%	6	1.39E-05	10	4.39%	58	1.46E-04	18	8.18%	108	2.72E-04
3	0.41%	5	1.35E-05	11	4.66%	62	1.55E-04	19	5.70%	75	1.90E-04
4	0.26%	3	8.71E-06	12	5.89%	78	1.96E-04	20	4.27%	57	1.42E-04
5	0.50%	7	1.66E-05	13	6.15%	81	2.05E-04	21	3.26%	43	1.08E-04
6	0.90%	12	3.01E-05	14	6.04%	80	2.01E-04	22	3.30%	44	1.10E-04
7	3.79%	50	1.26E-04	15	7.01%	93	2.34E-04	23	2.46%	33	8.20E-05
8	7.76%	103	2.59E-04	16	7.14%	95	2.38E-04	24	1.87%	25	6.21E-05
								Total		1,324	

2024 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_GAS

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	15	3.26E-05	9	7.11%	94	2.01E-04	17	7.39%	98	2.09E-04
2	0.42%	6	1.18E-05	10	4.39%	58	1.24E-04	18	8.18%	108	2.31E-04
3	0.41%	5	1.15E-05	11	4.66%	62	1.32E-04	19	5.70%	75	1.61E-04
4	0.26%	3	7.40E-06	12	5.89%	78	1.67E-04	20	4.27%	57	1.21E-04
5	0.50%	7	1.41E-05	13	6.15%	81	1.74E-04	21	3.26%	43	9.22E-05
6	0.90%	12	2.56E-05	14	6.04%	80	1.71E-04	22	3.30%	44	9.33E-05
7	3.79%	50	1.07E-04	15	7.01%	93	1.99E-04	23	2.46%	33	6.97E-05
8	7.76%	103	2.20E-04	16	7.14%	95	2.02E-04	24	1.87%	25	5.28E-05
								Total		1,324	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Gas Station
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2024

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
FUG_NB_GAS	Gas Station Trips From Sierra Road	NB	1	70.1	0.04	9.7	32	1.3	5	1,324	677	7,287	1.70E-08	1.25E-08	2.6	1.21
FUG_SB_GAS	Gas Station Trips From Piedmont Road	SB	1	59.6	0.04	9.7	32	1.3	5	1,324	576	6,196	1.70E-08	1.25E-08	2.6	1.21
									Total	2,648						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	5			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00201			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00240			
Road Dust - Emissions per Vehicle (g/VMT)	0.01283			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.01724			

Emisson Factors from CT-EMFAC2021

2024 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_GAS

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	15	3.18E-06	9	7.11%	94	1.97E-05	17	7.39%	98	2.04E-05
2	0.42%	6	1.15E-06	10	4.39%	58	1.21E-05	18	8.18%	108	2.26E-05
3	0.41%	5	1.12E-06	11	4.66%	62	1.29E-05	19	5.70%	75	1.57E-05
4	0.26%	3	7.23E-07	12	5.89%	78	1.63E-05	20	4.27%	57	1.18E-05
5	0.50%	7	1.38E-06	13	6.15%	81	1.70E-05	21	3.26%	43	9.00E-06
6	0.90%	12	2.50E-06	14	6.04%	80	1.67E-05	22	3.30%	44	9.11E-06
7	3.79%	50	1.05E-05	15	7.01%	93	1.94E-05	23	2.46%	33	6.80E-06
8	7.76%	103	2.15E-05	16	7.14%	95	1.97E-05	24	1.87%	25	5.16E-06
								Total		1,324	

2024 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_GAS

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	15	2.71E-06	9	7.11%	94	1.67E-05	17	7.39%	98	1.73E-05
2	0.42%	6	9.81E-07	10	4.39%	58	1.03E-05	18	8.18%	108	1.92E-05
3	0.41%	5	9.54E-07	11	4.66%	62	1.10E-05	19	5.70%	75	1.34E-05
4	0.26%	3	6.14E-07	12	5.89%	78	1.38E-05	20	4.27%	57	1.00E-05
5	0.50%	7	1.17E-06	13	6.15%	81	1.45E-05	21	3.26%	43	7.65E-06
6	0.90%	12	2.12E-06	14	6.04%	80	1.42E-05	22	3.30%	44	7.74E-06
7	3.79%	50	8.90E-06	15	7.01%	93	1.65E-05	23	2.46%	33	5.78E-06
8	7.76%	103	1.82E-05	16	7.14%	95	1.68E-05	24	1.87%	25	4.38E-06
								Total		1,324	

3315 Sierra Road, San Jose, CA - On-Site Residential
Cumulative Operation - Rotten Robbie Gas Station
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = **2026**

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area: Area (sq m)	Line Area: Area (sq ft)	Line Area: Emission (g/s/m2)	Line Area: Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_GAS	Gas Station Trips From Sierra Road	NB	1	70.1	0.04	9.7	31.7	3.4	5	1,324	677	7,287	2.140E-10	1.578E-10	6.8	3.16
DPM_SB_GAS	Gas Station Trips From Piedmont Road	SB	1	59.6	0.04	9.7	31.7	3.4	5	1,324	576	6,196	2.140E-10	1.578E-10	6.8	3.16
									Total	2,648						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	5			
Emissions per Vehicle (g/VMT)	0.00022			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and DPM Emissions - DPM_NB_GAS

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	53	1.38E-07	9	6.44%	85	2.24E-07	17	5.53%	73	1.92E-07
2	2.67%	35	9.28E-08	10	7.40%	98	2.57E-07	18	3.14%	42	1.09E-07
3	2.84%	38	9.88E-08	11	6.32%	84	2.20E-07	19	2.35%	31	8.16E-08
4	3.30%	44	1.15E-07	12	6.88%	91	2.39E-07	20	0.86%	11	2.99E-08
5	2.16%	29	7.51E-08	13	6.27%	83	2.18E-07	21	3.08%	41	1.07E-07
6	3.30%	44	1.15E-07	14	6.21%	82	2.16E-07	22	4.21%	56	1.46E-07
7	6.03%	80	2.10E-07	15	5.13%	68	1.78E-07	23	2.62%	35	9.12E-08
8	4.56%	60	1.59E-07	16	3.88%	51	1.35E-07	24	0.85%	11	2.96E-08
								Total		1,324	

2026 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_GAS

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	53	1.18E-07	9	6.44%	85	1.90E-07	17	5.53%	73	1.63E-07
2	2.67%	35	7.89E-08	10	7.40%	98	2.19E-07	18	3.14%	42	9.29E-08
3	2.84%	38	8.40E-08	11	6.32%	84	1.87E-07	19	2.35%	31	6.94E-08
4	3.30%	44	9.74E-08	12	6.88%	91	2.03E-07	20	0.86%	11	2.55E-08
5	2.16%	29	6.38E-08	13	6.27%	83	1.85E-07	21	3.08%	41	9.10E-08
6	3.30%	44	9.74E-08	14	6.21%	82	1.84E-07	22	4.21%	56	1.25E-07
7	6.03%	80	1.78E-07	15	5.13%	68	1.52E-07	23	2.62%	35	7.75E-08
8	4.56%	60	1.35E-07	16	3.88%	51	1.15E-07	24	0.85%	11	2.52E-08
								Total		1,324	

3315 Sierra Road, San Jose, CA - On-Site Residential
Cumulative Operation - Rotten Robbie Gas Station
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM2.5_NB_GAS	Gas Station Trips From Sierra Road	NB	1	70.1	0.04	9.7	32	1.3	5	1,324	677	7,287	7.60E-09	5.60E-09	2.6	1.21
PM2.5_SB_GAS	Gas Station Trips From Piedmont Road	SB	1	59.6	0.04	9.7	32	1.3	5	1,324	576	6,196	7.60E-09	5.60E-09	2.6	1.21
									Total	2,648						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	5			
Emissions per Vehicle (g/VMT)	0.007702			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_GAS

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	15	1.42E-06	9	7.11%	94	8.78E-06	17	7.38%	98	9.11E-06
2	0.42%	6	5.19E-07	10	4.39%	58	5.41E-06	18	8.18%	108	1.01E-05
3	0.41%	5	5.00E-07	11	4.66%	62	5.75E-06	19	5.70%	75	7.03E-06
4	0.26%	3	3.22E-07	12	5.89%	78	7.27E-06	20	4.27%	57	5.27E-06
5	0.50%	7	6.15E-07	13	6.15%	81	7.59E-06	21	3.26%	43	4.02E-06
6	0.90%	12	1.12E-06	14	6.04%	80	7.45E-06	22	3.30%	44	4.07E-06
7	3.79%	50	4.67E-06	15	7.01%	93	8.65E-06	23	2.46%	33	3.04E-06
8	7.76%	103	9.58E-06	16	7.14%	95	8.81E-06	24	1.87%	25	2.30E-06
								Total		1,324	

2026 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_GAS

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	15	1.21E-06	9	7.11%	94	7.46E-06	17	7.38%	98	7.75E-06
2	0.42%	6	4.41E-07	10	4.39%	58	4.60E-06	18	8.18%	108	8.58E-06
3	0.41%	5	4.25E-07	11	4.66%	62	4.89E-06	19	5.70%	75	5.98E-06
4	0.26%	3	2.74E-07	12	5.89%	78	6.18E-06	20	4.27%	57	4.48E-06
5	0.50%	7	5.23E-07	13	6.15%	81	6.46E-06	21	3.26%	43	3.42E-06
6	0.90%	12	9.48E-07	14	6.04%	80	6.33E-06	22	3.30%	44	3.46E-06
7	3.79%	50	3.97E-06	15	7.01%	93	7.36E-06	23	2.46%	33	2.58E-06
8	7.76%	103	8.15E-06	16	7.14%	95	7.49E-06	24	1.87%	25	1.96E-06
								Total		1,324	

3315 Sierra Road, San Jose, CA - On-Site Residential
Cumulative Operation - Rotten Robbie Gas Station
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_NB_GAS	Gas Station Trips From Sierra Road	NB	1	70.1	0.04	9.7	32	1.3	5	1,324	677	7,287	1.14E-07	8.42E-08	2.6	1.21
TEXH_SB_GAS	Gas Station Trips From Piedmont Road	SB	1	59.6	0.04	9.7	32	1.3	5	1,324	576	6,196	1.14E-07	8.42E-08	2.6	1.21
									Total	2,648						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	5			
Emissions per Vehicle (g/VMT)	0.11586			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_GAS

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	15	2.13E-05	9	7.11%	94	1.32E-04	17	7.38%	98	1.37E-04
2	0.42%	6	7.81E-06	10	4.39%	58	8.14E-05	18	8.18%	108	1.52E-04
3	0.41%	5	7.53E-06	11	4.66%	62	8.66E-05	19	5.70%	75	1.06E-04
4	0.26%	3	4.84E-06	12	5.89%	78	1.09E-04	20	4.27%	57	7.93E-05
5	0.50%	7	9.26E-06	13	6.15%	81	1.14E-04	21	3.26%	43	6.05E-05
6	0.90%	12	1.68E-05	14	6.04%	80	1.12E-04	22	3.30%	44	6.13E-05
7	3.79%	50	7.03E-05	15	7.01%	93	1.30E-04	23	2.46%	33	4.57E-05
8	7.76%	103	1.44E-04	16	7.14%	95	1.33E-04	24	1.87%	25	3.47E-05
								Total		1,324	

2026 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_GAS

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	15	1.81E-05	9	7.11%	94	1.12E-04	17	7.38%	98	1.17E-04
2	0.42%	6	6.64E-06	10	4.39%	58	6.92E-05	18	8.18%	108	1.29E-04
3	0.41%	5	6.40E-06	11	4.66%	62	7.36E-05	19	5.70%	75	8.99E-05
4	0.26%	3	4.12E-06	12	5.89%	78	9.29E-05	20	4.27%	57	6.74E-05
5	0.50%	7	7.87E-06	13	6.15%	81	9.71E-05	21	3.26%	43	5.14E-05
6	0.90%	12	1.43E-05	14	6.04%	80	9.53E-05	22	3.30%	44	5.21E-05
7	3.79%	50	5.98E-05	15	7.01%	93	1.11E-04	23	2.46%	33	3.89E-05
8	7.76%	103	1.23E-04	16	7.14%	95	1.13E-04	24	1.87%	25	2.95E-05
								Total		1,324	

3315 Sierra Road, San Jose, CA - On-Site Residential
Cumulative Operation - Rotten Robbie Gas Station
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_NB_GAS	Gas Station Trips From Sierra Road	NB	1	70.1	0.04	9.7	32	1.3	5	1,324	677	7,287	1.94E-07	1.43E-07	2.6	1.21
TEVAP_SB_GAS	Gas Station Trips From Piedmont Road	SB	1	59.6	0.04	9.7	32	1.3	5	1,324	576	6,196	1.94E-07	1.43E-07	2.6	1.21
									Total	2,648						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	5			
Emissions per Vehicle per Hour (g/hour)	0.98274			
Emissions per Vehicle per Mile (g/VMT)	0.19655			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_GAS

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	15	3.62E-05	9	7.11%	94	2.24E-04	17	7.38%	98	2.33E-04
2	0.42%	6	1.32E-05	10	4.39%	58	1.38E-04	18	8.18%	108	2.57E-04
3	0.41%	5	1.28E-05	11	4.66%	62	1.47E-04	19	5.70%	75	1.79E-04
4	0.26%	3	8.21E-06	12	5.89%	78	1.85E-04	20	4.27%	57	1.34E-04
5	0.50%	7	1.57E-05	13	6.15%	81	1.94E-04	21	3.26%	43	1.03E-04
6	0.90%	12	2.85E-05	14	6.04%	80	1.90E-04	22	3.30%	44	1.04E-04
7	3.79%	50	1.19E-04	15	7.01%	93	2.21E-04	23	2.46%	33	7.76E-05
8	7.76%	103	2.44E-04	16	7.14%	95	2.25E-04	24	1.87%	25	5.88E-05
								Total		1,324	

2026 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_GAS

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	15	3.08E-05	9	7.11%	94	1.90E-04	17	7.38%	98	1.98E-04
2	0.42%	6	1.13E-05	10	4.39%	58	1.17E-04	18	8.18%	108	2.19E-04
3	0.41%	5	1.09E-05	11	4.66%	62	1.25E-04	19	5.70%	75	1.53E-04
4	0.26%	3	6.98E-06	12	5.89%	78	1.58E-04	20	4.27%	57	1.14E-04
5	0.50%	7	1.34E-05	13	6.15%	81	1.65E-04	21	3.26%	43	8.72E-05
6	0.90%	12	2.42E-05	14	6.04%	80	1.62E-04	22	3.30%	44	8.84E-05
7	3.79%	50	1.01E-04	15	7.01%	93	1.88E-04	23	2.46%	33	6.59E-05
8	7.76%	103	2.08E-04	16	7.14%	95	1.91E-04	24	1.87%	25	5.00E-05
								Total		1,324	

3315 Sierra Road, San Jose, CA - On-Site Residential
Cumulative Operation - Rotten Robbie Gas Station
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
FUG_NB_GAS	Gas Station Trips From Sierra Road	NB	1	70.1	0.04	9.7	32	1.3	5	1,324	677	7,287	1.70E-08	1.26E-08	2.6	1.21
FUG_SB_GAS	Gas Station Trips From Piedmont Road	SB	1	59.6	0.04	9.7	32	1.3	5	1,324	576	6,196	1.70E-08	1.26E-08	2.6	1.21
									Total	2,648						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	5			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00201			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00239			
Road Dust - Emissions per Vehicle (g/VMT)	0.01290			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.01729			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_GAS

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	15	3.18E-06	9	7.11%	94	1.97E-05	17	7.38%	98	2.05E-05
2	0.42%	6	1.17E-06	10	4.39%	58	1.22E-05	18	8.18%	108	2.26E-05
3	0.41%	5	1.12E-06	11	4.66%	62	1.29E-05	19	5.70%	75	1.58E-05
4	0.26%	3	7.22E-07	12	5.89%	78	1.63E-05	20	4.27%	57	1.18E-05
5	0.50%	7	1.38E-06	13	6.15%	81	1.70E-05	21	3.26%	43	9.03E-06
6	0.90%	12	2.50E-06	14	6.04%	80	1.67E-05	22	3.30%	44	9.14E-06
7	3.79%	50	1.05E-05	15	7.01%	93	1.94E-05	23	2.46%	33	6.82E-06
8	7.76%	103	2.15E-05	16	7.14%	95	1.98E-05	24	1.87%	25	5.17E-06
								Total		1,324	

2026 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_GAS

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	15	2.71E-06	9	7.11%	94	1.67E-05	17	7.38%	98	1.74E-05
2	0.42%	6	9.91E-07	10	4.39%	58	1.03E-05	18	8.18%	108	1.93E-05
3	0.41%	5	9.55E-07	11	4.66%	62	1.10E-05	19	5.70%	75	1.34E-05
4	0.26%	3	6.14E-07	12	5.89%	78	1.39E-05	20	4.27%	57	1.01E-05
5	0.50%	7	1.17E-06	13	6.15%	81	1.45E-05	21	3.26%	43	7.67E-06
6	0.90%	12	2.13E-06	14	6.04%	80	1.42E-05	22	3.30%	44	7.77E-06
7	3.79%	50	8.92E-06	15	7.01%	93	1.65E-05	23	2.46%	33	5.80E-06
8	7.76%	103	1.83E-05	16	7.14%	95	1.68E-05	24	1.87%	25	4.40E-06
								Total		1,324	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Trips on Piedmont Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_PIE	Gas Station Trips on Piedmond Road Northbound	NB	1	671.3	0.42	9.7	31.7	3.4	35	662	6,483	69,784	4.092E-11	3.017E-11	6.8	3.16
DPM_SB_PIE	Gas Station Trips on Piedmont Road Southbound	SB	1	667.9	0.42	9.7	31.7	3.4	35	662	6,450	69,431	4.092E-11	3.017E-11	6.8	3.16
									Total	1,324						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00008			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and DPM Emissions - DPM_NB_PIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.90%	26	2.48E-07	9	6.42%	42	4.09E-07	17	5.62%	37	3.58E-07
2	2.58%	17	1.64E-07	10	7.34%	49	4.67E-07	18	3.27%	22	2.08E-07
3	2.87%	19	1.82E-07	11	6.42%	42	4.09E-07	19	2.35%	16	1.50E-07
4	3.32%	22	2.12E-07	12	6.88%	46	4.38E-07	20	0.86%	6	5.47E-08
5	2.18%	14	1.39E-07	13	6.25%	41	3.98E-07	21	3.09%	20	1.97E-07
6	3.38%	22	2.15E-07	14	6.19%	41	3.94E-07	22	4.13%	27	2.63E-07
7	6.02%	40	3.83E-07	15	5.10%	34	3.25E-07	23	2.52%	17	1.61E-07
8	4.64%	31	2.96E-07	16	3.78%	25	2.41E-07	24	0.92%	6	5.84E-08
								Total		662	

2026 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_PIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.90%	26	2.47E-07	9	6.42%	42	4.07E-07	17	5.62%	37	3.56E-07
2	2.58%	17	1.63E-07	10	7.34%	49	4.65E-07	18	3.27%	22	2.07E-07
3	2.87%	19	1.82E-07	11	6.42%	42	4.07E-07	19	2.35%	16	1.49E-07
4	3.32%	22	2.11E-07	12	6.88%	46	4.36E-07	20	0.86%	6	5.45E-08
5	2.18%	14	1.38E-07	13	6.25%	41	3.96E-07	21	3.09%	20	1.96E-07
6	3.38%	22	2.14E-07	14	6.19%	41	3.92E-07	22	4.13%	27	2.61E-07
7	6.02%	40	3.81E-07	15	5.10%	34	3.23E-07	23	2.52%	17	1.60E-07
8	4.64%	31	2.94E-07	16	3.78%	25	2.40E-07	24	0.92%	6	5.81E-08
								Total		662	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Trips on Piedmont Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM2.5_NB_PIE	Gas Station Trips on Piedmond Road Northbound	NB	1	671.3	0.42	9.7	32	1.3	35	662	6,483	69,784	5.99E-10	4.42E-10	2.6	1.21
PM2.5_SB_PIE	Gas Station Trips on Piedmont Road Southbound	SB	1	667.9	0.42	9.7	32	1.3	35	662	6,450	69,431	5.99E-10	4.42E-10	2.6	1.21
									Total	1,324						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001215			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_PIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	1.07E-06	9	7.11%	47	6.63E-06	17	7.39%	49	6.88E-06
2	0.42%	3	3.89E-07	10	4.39%	29	4.09E-06	18	8.18%	54	7.62E-06
3	0.41%	3	3.78E-07	11	4.66%	31	4.35E-06	19	5.70%	38	5.31E-06
4	0.26%	2	2.44E-07	12	5.89%	39	5.49E-06	20	4.27%	28	3.98E-06
5	0.50%	3	4.66E-07	13	6.15%	41	5.73E-06	21	3.26%	22	3.04E-06
6	0.90%	6	8.42E-07	14	6.04%	40	5.63E-06	22	3.30%	22	3.07E-06
7	3.79%	25	3.53E-06	15	7.01%	46	6.54E-06	23	2.46%	16	2.29E-06
8	7.76%	51	7.24E-06	16	7.14%	47	6.65E-06	24	1.87%	12	1.74E-06
								Total		662	

2026 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_PIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	8	1.07E-06	9	7.11%	47	6.60E-06	17	7.39%	49	6.85E-06
2	0.42%	3	3.87E-07	10	4.39%	29	4.07E-06	18	8.18%	54	7.58E-06
3	0.41%	3	3.76E-07	11	4.66%	31	4.33E-06	19	5.70%	38	5.28E-06
4	0.26%	2	2.43E-07	12	5.89%	39	5.46E-06	20	4.27%	28	3.96E-06
5	0.50%	3	4.63E-07	13	6.15%	41	5.71E-06	21	3.26%	22	3.02E-06
6	0.90%	6	8.38E-07	14	6.04%	40	5.60E-06	22	3.30%	22	3.06E-06
7	3.79%	25	3.52E-06	15	7.01%	46	6.51E-06	23	2.46%	16	2.28E-06
8	7.76%	51	7.20E-06	16	7.14%	47	6.62E-06	24	1.87%	12	1.73E-06
								Total		662	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Trips on Piedmont Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_NB_PIE	Piedmond Road Northbound	NB	1	671.3	0.42	9.7	32	1.3	35	662	6,483	69,784	1.03E-08	7.56E-09	2.6	1.21
TEXH_SB_PIE	Gas Station Trips on Piedmont Road	SB	1	667.9	0.42	9.7	32	1.3	35	662	6,450	69,431	1.03E-08	7.56E-09	2.6	1.21
									Total	1,324						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.02081			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_PIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	1.84E-05	9	7.11%	47	1.14E-04	17	7.39%	49	1.18E-04
2	0.42%	3	6.67E-06	10	4.39%	29	7.00E-05	18	8.18%	54	1.31E-04
3	0.41%	3	6.48E-06	11	4.66%	31	7.45E-05	19	5.70%	38	9.09E-05
4	0.26%	2	4.17E-06	12	5.89%	39	9.40E-05	20	4.27%	28	6.82E-05
5	0.50%	3	7.98E-06	13	6.15%	41	9.82E-05	21	3.26%	22	5.20E-05
6	0.90%	6	1.44E-05	14	6.04%	40	9.64E-05	22	3.30%	22	5.26E-05
7	3.79%	25	6.05E-05	15	7.01%	46	1.12E-04	23	2.46%	16	3.93E-05
8	7.76%	51	1.24E-04	16	7.14%	47	1.14E-04	24	1.87%	12	2.98E-05
								Total		662	

2026 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_PIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	8	1.83E-05	9	7.11%	47	1.13E-04	17	7.39%	49	1.17E-04
2	0.42%	3	6.63E-06	10	4.39%	29	6.96E-05	18	8.18%	54	1.30E-04
3	0.41%	3	6.45E-06	11	4.66%	31	7.41E-05	19	5.70%	38	9.04E-05
4	0.26%	2	4.15E-06	12	5.89%	39	9.35E-05	20	4.27%	28	6.79E-05
5	0.50%	3	7.94E-06	13	6.15%	41	9.77E-05	21	3.26%	22	5.17E-05
6	0.90%	6	1.44E-05	14	6.04%	40	9.59E-05	22	3.30%	22	5.24E-05
7	3.79%	25	6.02E-05	15	7.01%	46	1.11E-04	23	2.46%	16	3.91E-05
8	7.76%	51	1.23E-04	16	7.14%	47	1.13E-04	24	1.87%	12	2.96E-05
								Total		662	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Trips on Piedmont Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_NB_PIE	Gas Station Trips on Piedmond Road Northbound	NB	1	671.3	0.42	9.7	32	1.3	35	662	6,483	69,784	1.46E-08	1.08E-08	2.6	1.21
TEVAP_SB_PIE	Gas Station Trips on Piedmont Road Southbound	SB	1	667.9	0.42	9.7	32	1.3	35	662	6,450	69,431	1.46E-08	1.08E-08	2.6	1.21
									Total	1,324						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.03915			
Emissions per Vehicle per Mile (g/VMT)	0.02969			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_PIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	2.62E-05	9	7.11%	47	1.62E-04	17	7.39%	49	1.68E-04
2	0.42%	3	9.51E-06	10	4.39%	29	9.99E-05	18	8.18%	54	1.86E-04
3	0.41%	3	9.25E-06	11	4.66%	31	1.06E-04	19	5.70%	38	1.30E-04
4	0.26%	2	5.96E-06	12	5.89%	39	1.34E-04	20	4.27%	28	9.74E-05
5	0.50%	3	1.14E-05	13	6.15%	41	1.40E-04	21	3.26%	22	7.42E-05
6	0.90%	6	2.06E-05	14	6.04%	40	1.38E-04	22	3.30%	22	7.51E-05
7	3.79%	25	8.63E-05	15	7.01%	46	1.60E-04	23	2.46%	16	5.61E-05
8	7.76%	51	1.77E-04	16	7.14%	47	1.63E-04	24	1.87%	12	4.25E-05
								Total		662	

2026 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_PIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	8	2.61E-05	9	7.11%	47	1.61E-04	17	7.39%	49	1.67E-04
2	0.42%	3	9.47E-06	10	4.39%	29	9.94E-05	18	8.18%	54	1.85E-04
3	0.41%	3	9.20E-06	11	4.66%	31	1.06E-04	19	5.70%	38	1.29E-04
4	0.26%	2	5.93E-06	12	5.89%	39	1.33E-04	20	4.27%	28	9.69E-05
5	0.50%	3	1.13E-05	13	6.15%	41	1.39E-04	21	3.26%	22	7.38E-05
6	0.90%	6	2.05E-05	14	6.04%	40	1.37E-04	22	3.30%	22	7.47E-05
7	3.79%	25	8.59E-05	15	7.01%	46	1.59E-04	23	2.46%	16	5.58E-05
8	7.76%	51	1.76E-04	16	7.14%	47	1.62E-04	24	1.87%	12	4.23E-05
								Total		662	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Trips on Piedmont Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
FUG_NB_PIE	Gas Station Trips on Piedmond Road Northbound	NB	1	671.3	0.42	9.7	32	1.3	35	662	6,483	69,784	9.61E-09	7.09E-09	2.6	1.21
FUG_SB_PIE	Gas Station Trips on Piedmont Road Southbound	SB	1	667.9	0.42	9.7	32	1.3	35	662	6,450	69,431	9.61E-09	7.09E-09	2.6	1.21
									Total	1,324						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00201			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00465			
Road Dust - Emissions per Vehicle (g/VMT)	0.01283			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.01949			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_PIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	1.72E-05	9	7.11%	47	1.06E-04	17	7.39%	49	1.10E-04
2	0.42%	3	6.24E-06	10	4.39%	29	6.56E-05	18	8.18%	54	1.22E-04
3	0.41%	3	6.07E-06	11	4.66%	31	6.97E-05	19	5.70%	38	8.52E-05
4	0.26%	2	3.91E-06	12	5.89%	39	8.80E-05	20	4.27%	28	6.39E-05
5	0.50%	3	7.47E-06	13	6.15%	41	9.20E-05	21	3.26%	22	4.87E-05
6	0.90%	6	1.35E-05	14	6.04%	40	9.03E-05	22	3.30%	22	4.93E-05
7	3.79%	25	5.67E-05	15	7.01%	46	1.05E-04	23	2.46%	16	3.68E-05
8	7.76%	51	1.16E-04	16	7.14%	47	1.07E-04	24	1.87%	12	2.79E-05
								Total		662	

2026 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_PIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	8	1.71E-05	9	7.11%	47	1.06E-04	17	7.39%	49	1.10E-04
2	0.42%	3	6.21E-06	10	4.39%	29	6.52E-05	18	8.18%	54	1.22E-04
3	0.41%	3	6.04E-06	11	4.66%	31	6.94E-05	19	5.70%	38	8.47E-05
4	0.26%	2	3.89E-06	12	5.89%	39	8.76E-05	20	4.27%	28	6.36E-05
5	0.50%	3	7.43E-06	13	6.15%	41	9.15E-05	21	3.26%	22	4.85E-05
6	0.90%	6	1.34E-05	14	6.04%	40	8.98E-05	22	3.30%	22	4.90E-05
7	3.79%	25	5.64E-05	15	7.01%	46	1.04E-04	23	2.46%	16	3.66E-05
8	7.76%	51	1.15E-04	16	7.14%	47	1.06E-04	24	1.87%	12	2.78E-05
								Total		662	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Trips on Piedmont Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_NB_PIE	Gas Station Trips on Piedmond Road Northbound	NB	1	671.3	0.42	9.7	31.7	3.4	35	662	6,483	69,784	4.092E-11	3.017E-11	6.8	3.16
DPM_SB_PIE	Gas Station Trips on Piedmont Road Southbound	SB	1	667.9	0.42	9.7	31.7	3.4	35	662	6,450	69,431	4.092E-11	3.017E-11	6.8	3.16
									Total	1,324						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00008			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and DPM Emissions - DPM_NB_PIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.90%	26	2.48E-07	9	6.42%	42	4.09E-07	17	5.62%	37	3.58E-07
2	2.58%	17	1.64E-07	10	7.34%	49	4.67E-07	18	3.27%	22	2.08E-07
3	2.87%	19	1.82E-07	11	6.42%	42	4.09E-07	19	2.35%	16	1.50E-07
4	3.32%	22	2.12E-07	12	6.88%	46	4.38E-07	20	0.86%	6	5.47E-08
5	2.18%	14	1.39E-07	13	6.25%	41	3.98E-07	21	3.09%	20	1.97E-07
6	3.38%	22	2.15E-07	14	6.19%	41	3.94E-07	22	4.13%	27	2.63E-07
7	6.02%	40	3.83E-07	15	5.10%	34	3.25E-07	23	2.52%	17	1.61E-07
8	4.64%	31	2.96E-07	16	3.78%	25	2.41E-07	24	0.92%	6	5.84E-08
								Total		662	

2026 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SB_PIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.90%	26	2.47E-07	9	6.42%	42	4.07E-07	17	5.62%	37	3.56E-07
2	2.58%	17	1.63E-07	10	7.34%	49	4.65E-07	18	3.27%	22	2.07E-07
3	2.87%	19	1.82E-07	11	6.42%	42	4.07E-07	19	2.35%	16	1.49E-07
4	3.32%	22	2.11E-07	12	6.88%	46	4.36E-07	20	0.86%	6	5.45E-08
5	2.18%	14	1.38E-07	13	6.25%	41	3.96E-07	21	3.09%	20	1.96E-07
6	3.38%	22	2.14E-07	14	6.19%	41	3.92E-07	22	4.13%	27	2.61E-07
7	6.02%	40	3.81E-07	15	5.10%	34	3.23E-07	23	2.52%	17	1.60E-07
8	4.64%	31	2.94E-07	16	3.78%	25	2.40E-07	24	0.92%	6	5.81E-08
								Total		662	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Trips on Piedmont Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM2.5_NB_PIE	Gas Station Trips on Piedmond Road Northbound	NB	1	671.3	0.42	9.7	32	1.3	35	662	6,483	69,784	5.99E-10	4.42E-10	2.6	1.21
PM2.5_SB_PIE	Gas Station Trips on Piedmont Road Southbound	SB	1	667.9	0.42	9.7	32	1.3	35	662	6,450	69,431	5.99E-10	4.42E-10	2.6	1.21
									Total	1,324						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001215			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_NB_PIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	1.07E-06	9	7.11%	47	6.63E-06	17	7.39%	49	6.88E-06
2	0.42%	3	3.89E-07	10	4.39%	29	4.09E-06	18	8.18%	54	7.62E-06
3	0.41%	3	3.78E-07	11	4.66%	31	4.35E-06	19	5.70%	38	5.31E-06
4	0.26%	2	2.44E-07	12	5.89%	39	5.49E-06	20	4.27%	28	3.98E-06
5	0.50%	3	4.66E-07	13	6.15%	41	5.73E-06	21	3.26%	22	3.04E-06
6	0.90%	6	8.42E-07	14	6.04%	40	5.63E-06	22	3.30%	22	3.07E-06
7	3.79%	25	3.53E-06	15	7.01%	46	6.54E-06	23	2.46%	16	2.29E-06
8	7.76%	51	7.24E-06	16	7.14%	47	6.65E-06	24	1.87%	12	1.74E-06
								Total		662	

2026 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_SB_PIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	8	1.07E-06	9	7.11%	47	6.60E-06	17	7.39%	49	6.85E-06
2	0.42%	3	3.87E-07	10	4.39%	29	4.07E-06	18	8.18%	54	7.58E-06
3	0.41%	3	3.76E-07	11	4.66%	31	4.33E-06	19	5.70%	38	5.28E-06
4	0.26%	2	2.43E-07	12	5.89%	39	5.46E-06	20	4.27%	28	3.96E-06
5	0.50%	3	4.63E-07	13	6.15%	41	5.71E-06	21	3.26%	22	3.02E-06
6	0.90%	6	8.38E-07	14	6.04%	40	5.60E-06	22	3.30%	22	3.06E-06
7	3.79%	25	3.52E-06	15	7.01%	46	6.51E-06	23	2.46%	16	2.28E-06
8	7.76%	51	7.20E-06	16	7.14%	47	6.62E-06	24	1.87%	12	1.73E-06
								Total		662	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Trips on Piedmont Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_NB_PIE	Piedmond Road Northbound	NB	1	671.3	0.42	9.7	32	1.3	35	662	6,483	69,784	1.03E-08	7.56E-09	2.6	1.21
TEXH_SB_PIE	Gas Station Trips on Piedmont Road	SB	1	667.9	0.42	9.7	32	1.3	35	662	6,450	69,431	1.03E-08	7.56E-09	2.6	1.21
									Total	1,324						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.02081			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NB_PIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	1.84E-05	9	7.11%	47	1.14E-04	17	7.39%	49	1.18E-04
2	0.42%	3	6.67E-06	10	4.39%	29	7.00E-05	18	8.18%	54	1.31E-04
3	0.41%	3	6.48E-06	11	4.66%	31	7.45E-05	19	5.70%	38	9.09E-05
4	0.26%	2	4.17E-06	12	5.89%	39	9.40E-05	20	4.27%	28	6.82E-05
5	0.50%	3	7.98E-06	13	6.15%	41	9.82E-05	21	3.26%	22	5.20E-05
6	0.90%	6	1.44E-05	14	6.04%	40	9.64E-05	22	3.30%	22	5.26E-05
7	3.79%	25	6.05E-05	15	7.01%	46	1.12E-04	23	2.46%	16	3.93E-05
8	7.76%	51	1.24E-04	16	7.14%	47	1.14E-04	24	1.87%	12	2.98E-05
								Total		662	

2026 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_SB_PIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	8	1.83E-05	9	7.11%	47	1.13E-04	17	7.39%	49	1.17E-04
2	0.42%	3	6.63E-06	10	4.39%	29	6.96E-05	18	8.18%	54	1.30E-04
3	0.41%	3	6.45E-06	11	4.66%	31	7.41E-05	19	5.70%	38	9.04E-05
4	0.26%	2	4.15E-06	12	5.89%	39	9.35E-05	20	4.27%	28	6.79E-05
5	0.50%	3	7.94E-06	13	6.15%	41	9.77E-05	21	3.26%	22	5.17E-05
6	0.90%	6	1.44E-05	14	6.04%	40	9.59E-05	22	3.30%	22	5.24E-05
7	3.79%	25	6.02E-05	15	7.01%	46	1.11E-04	23	2.46%	16	3.91E-05
8	7.76%	51	1.23E-04	16	7.14%	47	1.13E-04	24	1.87%	12	2.96E-05
								Total		662	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Trips on Piedmont Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_NB_PIE	Gas Station Trips on Piedmond Road Northbound	NB	1	671.3	0.42	9.7	32	1.3	35	662	6,483	69,784	1.46E-08	1.08E-08	2.6	1.21
TEVAP_SB_PIE	Gas Station Trips on Piedmont Road Southbound	SB	1	667.9	0.42	9.7	32	1.3	35	662	6,450	69,431	1.46E-08	1.08E-08	2.6	1.21
									Total	1,324						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.03915			
Emissions per Vehicle per Mile (g/VMT)	0.02969			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NB_PIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	2.62E-05	9	7.11%	47	1.62E-04	17	7.39%	49	1.68E-04
2	0.42%	3	9.51E-06	10	4.39%	29	9.99E-05	18	8.18%	54	1.86E-04
3	0.41%	3	9.25E-06	11	4.66%	31	1.06E-04	19	5.70%	38	1.30E-04
4	0.26%	2	5.96E-06	12	5.89%	39	1.34E-04	20	4.27%	28	9.74E-05
5	0.50%	3	1.14E-05	13	6.15%	41	1.40E-04	21	3.26%	22	7.42E-05
6	0.90%	6	2.06E-05	14	6.04%	40	1.38E-04	22	3.30%	22	7.51E-05
7	3.79%	25	8.63E-05	15	7.01%	46	1.60E-04	23	2.46%	16	5.61E-05
8	7.76%	51	1.77E-04	16	7.14%	47	1.63E-04	24	1.87%	12	4.25E-05
								Total		662	

2026 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_SB_PIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	8	2.61E-05	9	7.11%	47	1.61E-04	17	7.39%	49	1.67E-04
2	0.42%	3	9.47E-06	10	4.39%	29	9.94E-05	18	8.18%	54	1.85E-04
3	0.41%	3	9.20E-06	11	4.66%	31	1.06E-04	19	5.70%	38	1.29E-04
4	0.26%	2	5.93E-06	12	5.89%	39	1.33E-04	20	4.27%	28	9.69E-05
5	0.50%	3	1.13E-05	13	6.15%	41	1.39E-04	21	3.26%	22	7.38E-05
6	0.90%	6	2.05E-05	14	6.04%	40	1.37E-04	22	3.30%	22	7.47E-05
7	3.79%	25	8.59E-05	15	7.01%	46	1.59E-04	23	2.46%	16	5.58E-05
8	7.76%	51	1.76E-04	16	7.14%	47	1.62E-04	24	1.87%	12	4.23E-05
								Total		662	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Trips on Piedmont Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
FUG_NB_PIE	Gas Station Trips on Piedmond Road Northbound	NB	1	671.3	0.42	9.7	32	1.3	35	662	6,483	69,784	9.61E-09	7.09E-09	2.6	1.21
FUG_SB_PIE	Gas Station Trips on Piedmont Road Southbound	SB	1	667.9	0.42	9.7	32	1.3	35	662	6,450	69,431	9.61E-09	7.09E-09	2.6	1.21
									Total	1,324						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00201			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00465			
Road Dust - Emissions per Vehicle (g/VMT)	0.01283			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.01949			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_PIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	1.72E-05	9	7.11%	47	1.06E-04	17	7.39%	49	1.10E-04
2	0.42%	3	6.24E-06	10	4.39%	29	6.56E-05	18	8.18%	54	1.22E-04
3	0.41%	3	6.07E-06	11	4.66%	31	6.97E-05	19	5.70%	38	8.52E-05
4	0.26%	2	3.91E-06	12	5.89%	39	8.80E-05	20	4.27%	28	6.39E-05
5	0.50%	3	7.47E-06	13	6.15%	41	9.20E-05	21	3.26%	22	4.87E-05
6	0.90%	6	1.35E-05	14	6.04%	40	9.03E-05	22	3.30%	22	4.93E-05
7	3.79%	25	5.67E-05	15	7.01%	46	1.05E-04	23	2.46%	16	3.68E-05
8	7.76%	51	1.16E-04	16	7.14%	47	1.07E-04	24	1.87%	12	2.79E-05
								Total		662	

2026 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_PIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	8	1.71E-05	9	7.11%	47	1.06E-04	17	7.39%	49	1.10E-04
2	0.42%	3	6.21E-06	10	4.39%	29	6.52E-05	18	8.18%	54	1.22E-04
3	0.41%	3	6.04E-06	11	4.66%	31	6.94E-05	19	5.70%	38	8.47E-05
4	0.26%	2	3.89E-06	12	5.89%	39	8.76E-05	20	4.27%	28	6.36E-05
5	0.50%	3	7.43E-06	13	6.15%	41	9.15E-05	21	3.26%	22	4.85E-05
6	0.90%	6	1.34E-05	14	6.04%	40	8.98E-05	22	3.30%	22	4.90E-05
7	3.79%	25	5.64E-05	15	7.01%	46	1.04E-04	23	2.46%	16	3.66E-05
8	7.76%	51	1.15E-04	16	7.14%	47	1.06E-04	24	1.87%	12	2.78E-05
								Total		662	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Trips on Sierra Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area Area (sq m)	Line Area Area (sq ft)	Line Area Emission (g/s/m2)	Line Area Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_EB_SIE	Gas Station Trips on Sierra Road Eastbound	EB	1	782.1	0.49	9.7	31.7	3.4	35	662	7,553	81,302	4.092E-11	3.017E-11	6.8	3.16
DPM_WB_SIE	Gas Station Trips on Sierra Road Westbound	WB	1	783.2	0.49	9.7	31.7	3.4	35	662	7,564	81,416	4.092E-11	3.017E-11	6.8	3.16
									Total	1,324						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00008			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and DPM Emissions - DPM_EB_SIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.90%	26	2.89E-07	9	6.42%	42	4.76E-07	17	5.62%	37	4.17E-07
2	2.58%	17	1.91E-07	10	7.34%	49	5.44E-07	18	3.27%	22	2.42E-07
3	2.87%	19	2.13E-07	11	6.42%	42	4.76E-07	19	2.35%	16	1.74E-07
4	3.32%	22	2.47E-07	12	6.88%	46	5.10E-07	20	0.86%	6	6.38E-08
5	2.18%	14	1.62E-07	13	6.25%	41	4.63E-07	21	3.09%	20	2.30E-07
6	3.38%	22	2.51E-07	14	6.19%	41	4.59E-07	22	4.13%	27	3.06E-07
7	6.02%	40	4.46E-07	15	5.10%	34	3.78E-07	23	2.52%	17	1.87E-07
8	4.64%	31	3.44E-07	16	3.78%	25	2.81E-07	24	0.92%	6	6.80E-08
								Total		662	

2026 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_WB_SIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.90%	26	2.89E-07	9	6.42%	42	4.77E-07	17	5.62%	37	4.17E-07
2	2.58%	17	1.92E-07	10	7.34%	49	5.45E-07	18	3.27%	22	2.43E-07
3	2.87%	19	2.13E-07	11	6.42%	42	4.77E-07	19	2.35%	16	1.75E-07
4	3.32%	22	2.47E-07	12	6.88%	46	5.11E-07	20	0.86%	6	6.39E-08
5	2.18%	14	1.62E-07	13	6.25%	41	4.64E-07	21	3.09%	20	2.30E-07
6	3.38%	22	2.51E-07	14	6.19%	41	4.60E-07	22	4.13%	27	3.07E-07
7	6.02%	40	4.47E-07	15	5.10%	34	3.79E-07	23	2.52%	17	1.87E-07
8	4.64%	31	3.45E-07	16	3.78%	25	2.81E-07	24	0.92%	6	6.81E-08
								Total		662	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Trips on Sierra Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM2.5_EB_SIE	Gas Station Trips on Sierra Road Eastbound	EB	1	782.1	0.49	9.7	32	1.3	35	662	7,553	81,302	5.99E-10	4.42E-10	2.6	1.21
PM2.5_WB_SIE	Gas Station Trips on Sierra Road Westbound	WB	1	783.2	0.49	9.7	32	1.3	35	662	7,564	81,416	5.99E-10	4.42E-10	2.6	1.21
									Total	1,324						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001215			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_EB_SIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	1.25E-06	9	7.11%	47	7.72E-06	17	7.39%	49	8.02E-06
2	0.42%	3	4.54E-07	10	4.39%	29	4.76E-06	18	8.18%	54	8.88E-06
3	0.41%	3	4.41E-07	11	4.66%	31	5.07E-06	19	5.70%	38	6.18E-06
4	0.26%	2	2.84E-07	12	5.89%	39	6.39E-06	20	4.27%	28	4.64E-06
5	0.50%	3	5.43E-07	13	6.15%	41	6.68E-06	21	3.26%	22	3.54E-06
6	0.90%	6	9.81E-07	14	6.04%	40	6.56E-06	22	3.30%	22	3.58E-06
7	3.79%	25	4.12E-06	15	7.01%	46	7.62E-06	23	2.46%	16	2.67E-06
8	7.76%	51	8.43E-06	16	7.14%	47	7.75E-06	24	1.87%	12	2.03E-06
								Total		662	

2026 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_WB_SIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	8	1.25E-06	9	7.11%	47	7.73E-06	17	7.39%	49	8.03E-06
2	0.42%	3	4.54E-07	10	4.39%	29	4.77E-06	18	8.18%	54	8.89E-06
3	0.41%	3	4.41E-07	11	4.66%	31	5.07E-06	19	5.70%	38	6.19E-06
4	0.26%	2	2.84E-07	12	5.89%	39	6.40E-06	20	4.27%	28	4.65E-06
5	0.50%	3	5.43E-07	13	6.15%	41	6.69E-06	21	3.26%	22	3.54E-06
6	0.90%	6	9.83E-07	14	6.04%	40	6.57E-06	22	3.30%	22	3.59E-06
7	3.79%	25	4.12E-06	15	7.01%	46	7.63E-06	23	2.46%	16	2.68E-06
8	7.76%	51	8.44E-06	16	7.14%	47	7.76E-06	24	1.87%	12	2.03E-06
								Total		662	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Trips on Sierra Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_EB_SIE	Gas Station Trips on Sierra Road Eastbound	EB	1	782.1	0.49	9.7	32	1.3	35	662	7,553	81,302	1.03E-08	7.56E-09	2.6	1.21
TEXH_WB_SIE	Gas Station Trips on Sierra Road Westbound	WB	1	783.2	0.49	9.7	32	1.3	35	662	7,564	81,416	1.03E-08	7.56E-09	2.6	1.21
									Total	1,324						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.02081			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_EB_SIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	2.14E-05	9	7.11%	47	1.32E-04	17	7.39%	49	1.37E-04
2	0.42%	3	7.77E-06	10	4.39%	29	8.16E-05	18	8.18%	54	1.52E-04
3	0.41%	3	7.55E-06	11	4.66%	31	8.67E-05	19	5.70%	38	1.06E-04
4	0.26%	2	4.86E-06	12	5.89%	39	1.10E-04	20	4.27%	28	7.95E-05
5	0.50%	3	9.29E-06	13	6.15%	41	1.14E-04	21	3.26%	22	6.06E-05
6	0.90%	6	1.68E-05	14	6.04%	40	1.12E-04	22	3.30%	22	6.13E-05
7	3.79%	25	7.05E-05	15	7.01%	46	1.30E-04	23	2.46%	16	4.58E-05
8	7.76%	51	1.44E-04	16	7.14%	47	1.33E-04	24	1.87%	12	3.47E-05
								Total		662	

2026 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_WB_SIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	8	2.14E-05	9	7.11%	47	1.32E-04	17	7.39%	49	1.38E-04
2	0.42%	3	7.78E-06	10	4.39%	29	8.17E-05	18	8.18%	54	1.52E-04
3	0.41%	3	7.56E-06	11	4.66%	31	8.69E-05	19	5.70%	38	1.06E-04
4	0.26%	2	4.87E-06	12	5.89%	39	1.10E-04	20	4.27%	28	7.96E-05
5	0.50%	3	9.30E-06	13	6.15%	41	1.15E-04	21	3.26%	22	6.07E-05
6	0.90%	6	1.68E-05	14	6.04%	40	1.12E-04	22	3.30%	22	6.14E-05
7	3.79%	25	7.06E-05	15	7.01%	46	1.31E-04	23	2.46%	16	4.58E-05
8	7.76%	51	1.45E-04	16	7.14%	47	1.33E-04	24	1.87%	12	3.47E-05
								Total		662	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Trips on Sierra Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_EB_SIE	Gas Station Trips on Sierra Road Eastbound	EB	1	782.1	0.49	9.7	32	1.3	35	662	7,553	81,302	1.46E-08	1.08E-08	2.6	1.21
TEVAP_WB_SIE	Gas Station Trips on Sierra Road Westbound	WB	1	783.2	0.49	9.7	32	1.3	35	662	7,564	81,416	1.46E-08	1.08E-08	2.6	1.21
									Total	1,324						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	1.03915			
Emissions per Vehicle per Mile (g/VMT)	0.02969			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_EB_SIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	3.06E-05	9	7.11%	47	1.89E-04	17	7.39%	49	1.96E-04
2	0.42%	3	1.11E-05	10	4.39%	29	1.16E-04	18	8.18%	54	2.17E-04
3	0.41%	3	1.08E-05	11	4.66%	31	1.24E-04	19	5.70%	38	1.51E-04
4	0.26%	2	6.94E-06	12	5.89%	39	1.56E-04	20	4.27%	28	1.13E-04
5	0.50%	3	1.33E-05	13	6.15%	41	1.63E-04	21	3.26%	22	8.64E-05
6	0.90%	6	2.40E-05	14	6.04%	40	1.60E-04	22	3.30%	22	8.75E-05
7	3.79%	25	1.01E-04	15	7.01%	46	1.86E-04	23	2.46%	16	6.53E-05
8	7.76%	51	2.06E-04	16	7.14%	47	1.89E-04	24	1.87%	12	4.95E-05
								Total		662	

2026 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_WB_SIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	8	3.06E-05	9	7.11%	47	1.89E-04	17	7.39%	49	1.96E-04
2	0.42%	3	1.11E-05	10	4.39%	29	1.17E-04	18	8.18%	54	2.17E-04
3	0.41%	3	1.08E-05	11	4.66%	31	1.24E-04	19	5.70%	38	1.51E-04
4	0.26%	2	6.95E-06	12	5.89%	39	1.56E-04	20	4.27%	28	1.14E-04
5	0.50%	3	1.33E-05	13	6.15%	41	1.63E-04	21	3.26%	22	8.66E-05
6	0.90%	6	2.40E-05	14	6.04%	40	1.60E-04	22	3.30%	22	8.76E-05
7	3.79%	25	1.01E-04	15	7.01%	46	1.86E-04	23	2.46%	16	6.54E-05
8	7.76%	51	2.06E-04	16	7.14%	47	1.90E-04	24	1.87%	12	4.96E-05
								Total		662	

3315 Sierra Road, San Jose, CA - Off-Site Residential
Cumulative Operation - Rotten Robbie Trips on Sierra Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
FUG_NB_PIE	Gas Station Trips on Sierra Road Eastbound	EB	1	782.1	0.49	9.7	32	1.3	35	662	7,553	81,302	9.61E-09	7.09E-09	2.6	1.21
FUG_SB_PIE	Gas Station Trips on Sierra Road Westbound	WB	1	783.2	0.49	9.7	32	1.3	35	662	7,564	81,416	9.61E-09	7.09E-09	2.6	1.21
									Total	1,324						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00201			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00465			
Road Dust - Emissions per Vehicle (g/VMT)	0.01283			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.01949			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_PIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	2.01E-05	9	7.11%	47	1.24E-04	17	7.39%	49	1.29E-04
2	0.42%	3	7.28E-06	10	4.39%	29	7.64E-05	18	8.18%	54	1.42E-04
3	0.41%	3	7.07E-06	11	4.66%	31	8.13E-05	19	5.70%	38	9.92E-05
4	0.26%	2	4.56E-06	12	5.89%	39	1.03E-04	20	4.27%	28	7.45E-05
5	0.50%	3	8.70E-06	13	6.15%	41	1.07E-04	21	3.26%	22	5.67E-05
6	0.90%	6	1.57E-05	14	6.04%	40	1.05E-04	22	3.30%	22	5.74E-05
7	3.79%	25	6.60E-05	15	7.01%	46	1.22E-04	23	2.46%	16	4.29E-05
8	7.76%	51	1.35E-04	16	7.14%	47	1.24E-04	24	1.87%	12	3.25E-05
								Total		662	

2026 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_PIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	8	2.01E-05	9	7.11%	47	1.24E-04	17	7.39%	49	1.29E-04
2	0.42%	3	7.29E-06	10	4.39%	29	7.65E-05	18	8.18%	54	1.43E-04
3	0.41%	3	7.08E-06	11	4.66%	31	8.14E-05	19	5.70%	38	9.93E-05
4	0.26%	2	4.56E-06	12	5.89%	39	1.03E-04	20	4.27%	28	7.46E-05
5	0.50%	3	8.72E-06	13	6.15%	41	1.07E-04	21	3.26%	22	5.68E-05
6	0.90%	6	1.58E-05	14	6.04%	40	1.05E-04	22	3.30%	22	5.75E-05
7	3.79%	25	6.61E-05	15	7.01%	46	1.22E-04	23	2.46%	16	4.29E-05
8	7.76%	51	1.35E-04	16	7.14%	47	1.25E-04	24	1.87%	12	3.25E-05
								Total		662	

3315 Sierra Road, San Jose, CA - On-Site Residential
Cumulative Operation - Rotten Robbie Trips on Sierra Road
DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Line Area Area (sq m)	Line Area Area (sq ft)	Line Area Emission (g/s/m2)	Line Area Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
DPM_EB_SIE	Gas Station Trips on Sierra Road Eastbound	EB	1	782.1	0.49	9.7	31.7	3.4	35	662	7,553	81,302	3.402E-11	2.508E-11	6.8	3.16
DPM_WB_SIE	Gas Station Trips on Sierra Road Westbound	WB	1	783.2	0.49	9.7	31.7	3.4	35	662	7,564	81,416	3.402E-11	2.508E-11	6.8	3.16
									Total	1,324						

Emission Factors

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.00007			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and DPM Emissions - DPM_EB_SIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.98%	26	2.45E-07	9	6.44%	43	3.97E-07	17	5.53%	37	3.41E-07
2	2.67%	18	1.65E-07	10	7.40%	49	4.56E-07	18	3.14%	21	1.94E-07
3	2.84%	19	1.75E-07	11	6.32%	42	3.89E-07	19	2.35%	16	1.45E-07
4	3.30%	22	2.03E-07	12	6.88%	46	4.25E-07	20	0.86%	6	5.31E-08
5	2.16%	14	1.33E-07	13	6.27%	41	3.87E-07	21	3.08%	20	1.90E-07
6	3.30%	22	2.03E-07	14	6.21%	41	3.83E-07	22	4.21%	28	2.60E-07
7	6.03%	40	3.72E-07	15	5.13%	34	3.16E-07	23	2.62%	17	1.62E-07
8	4.56%	30	2.81E-07	16	3.88%	26	2.39E-07	24	0.85%	6	5.26E-08
								Total		662	

2026 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_WB_SIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.98%	26	2.46E-07	9	6.44%	43	3.98E-07	17	5.53%	37	3.41E-07
2	2.67%	18	1.65E-07	10	7.40%	49	4.57E-07	18	3.14%	21	1.94E-07
3	2.84%	19	1.75E-07	11	6.32%	42	3.90E-07	19	2.35%	16	1.45E-07
4	3.30%	22	2.04E-07	12	6.88%	46	4.25E-07	20	0.86%	6	5.32E-08
5	2.16%	14	1.33E-07	13	6.27%	41	3.87E-07	21	3.08%	20	1.90E-07
6	3.30%	22	2.04E-07	14	6.21%	41	3.84E-07	22	4.21%	28	2.60E-07
7	6.03%	40	3.72E-07	15	5.13%	34	3.17E-07	23	2.62%	17	1.62E-07
8	4.56%	30	2.82E-07	16	3.88%	26	2.40E-07	24	0.85%	6	5.26E-08
								Total		662	

3315 Sierra Road, San Jose, CA - On-Site Residential
Cumulative Operation - Rotten Robbie Trips on Sierra Road
PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height (m)	(Sigma z) Initial Vertical Dimension
PM2.5_EB_SIE	Gas Station Trips on Sierra Road Eastbound	EB	1	782.1	0.49	9.7	32	1.3	35	662	7,553	81,302	5.49E-10	4.05E-10	2.6	1.21
PM2.5_WB_SIE	Gas Station Trips on Sierra Road Westbound	WB	1	783.2	0.49	9.7	32	1.3	35	662	7,564	81,416	5.49E-10	4.05E-10	2.6	1.21
									Total	1,324						

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.001113			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and PM2.5 Emissions - PM2.5_EB_SIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	1.14E-06	9	7.11%	47	7.08E-06	17	7.38%	49	7.35E-06
2	0.42%	3	4.18E-07	10	4.39%	29	4.36E-06	18	8.18%	54	8.13E-06
3	0.41%	3	4.03E-07	11	4.66%	31	4.64E-06	19	5.70%	38	5.67E-06
4	0.26%	2	2.59E-07	12	5.89%	39	5.86E-06	20	4.27%	28	4.25E-06
5	0.50%	3	4.96E-07	13	6.15%	41	6.12E-06	21	3.26%	22	3.24E-06
6	0.90%	6	8.99E-07	14	6.04%	40	6.01E-06	22	3.30%	22	3.28E-06
7	3.79%	25	3.77E-06	15	7.01%	46	6.98E-06	23	2.46%	16	2.45E-06
8	7.76%	51	7.72E-06	16	7.14%	47	7.10E-06	24	1.87%	12	1.86E-06
								Total		662	

2026 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM2.5_WB_SIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	8	1.15E-06	9	7.11%	47	7.09E-06	17	7.38%	49	7.36E-06
2	0.42%	3	4.19E-07	10	4.39%	29	4.37E-06	18	8.18%	54	8.15E-06
3	0.41%	3	4.04E-07	11	4.66%	31	4.65E-06	19	5.70%	38	5.68E-06
4	0.26%	2	2.60E-07	12	5.89%	39	5.87E-06	20	4.27%	28	4.25E-06
5	0.50%	3	4.97E-07	13	6.15%	41	6.13E-06	21	3.26%	22	3.25E-06
6	0.90%	6	9.01E-07	14	6.04%	40	6.01E-06	22	3.30%	22	3.29E-06
7	3.79%	25	3.77E-06	15	7.01%	46	6.99E-06	23	2.46%	16	2.45E-06
8	7.76%	51	7.73E-06	16	7.14%	47	7.11E-06	24	1.87%	12	1.86E-06
								Total		662	

3315 Sierra Road, San Jose, CA - On-Site Residential
Cumulative Operation - Rotten Robbie Trips on Sierra Road
TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEXH_EB_SIE	Gas Station Trips on Sierra Road Eastbound	EB	1	782.1	0.49	9.7	32	1.3	35	662	7,553	81,302	8.66E-09	6.39E-09	2.6	1.21
TEXH_WB_SIE	Gas Station Trips on Sierra Road Westbound	WB	1	783.2	0.49	9.7	32	1.3	35	662	7,564	81,416	8.66E-09	6.39E-09	2.6	1.21
									Total	1,324						

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle (g/VMT)	0.01757			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_EB_SIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	1.81E-05	9	7.11%	47	1.12E-04	17	7.38%	49	1.16E-04
2	0.42%	3	6.61E-06	10	4.39%	29	6.89E-05	18	8.18%	54	1.28E-04
3	0.41%	3	6.37E-06	11	4.66%	31	7.32E-05	19	5.70%	38	8.95E-05
4	0.26%	2	4.09E-06	12	5.89%	39	9.25E-05	20	4.27%	28	6.71E-05
5	0.50%	3	7.83E-06	13	6.15%	41	9.66E-05	21	3.26%	22	5.12E-05
6	0.90%	6	1.42E-05	14	6.04%	40	9.48E-05	22	3.30%	22	5.18E-05
7	3.79%	25	5.95E-05	15	7.01%	46	1.10E-04	23	2.46%	16	3.87E-05
8	7.76%	51	1.22E-04	16	7.14%	47	1.12E-04	24	1.87%	12	2.93E-05
								Total		662	

2026 Hourly Traffic Volumes Per Direction and TOG Exhaust Emissions - TEXH_WB_SIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	8	1.81E-05	9	7.11%	47	1.12E-04	17	7.38%	49	1.16E-04
2	0.42%	3	6.61E-06	10	4.39%	29	6.90E-05	18	8.18%	54	1.29E-04
3	0.41%	3	6.38E-06	11	4.66%	31	7.33E-05	19	5.70%	38	8.96E-05
4	0.26%	2	4.10E-06	12	5.89%	39	9.26E-05	20	4.27%	28	6.72E-05
5	0.50%	3	7.84E-06	13	6.15%	41	9.68E-05	21	3.26%	22	5.12E-05
6	0.90%	6	1.42E-05	14	6.04%	40	9.49E-05	22	3.30%	22	5.19E-05
7	3.79%	25	5.96E-05	15	7.01%	46	1.10E-04	23	2.46%	16	3.87E-05
8	7.76%	51	1.22E-04	16	7.14%	47	1.12E-04	24	1.87%	12	2.94E-05
								Total		662	

3315 Sierra Road, San Jose, CA - On-Site Residential
Cumulative Operation - Rotten Robbie Trips on Sierra Road
TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
TEVAP_EB_SIE	Gas Station Trips on Sierra Road Eastbound	EB	1	782.1	0.49	9.7	32	1.3	35	662	7,553	81,302	1.38E-08	1.02E-08	2.6	1.21
TEVAP_WB_SIE	Gas Station Trips on Sierra Road Westbound	WB	1	783.2	0.49	9.7	32	1.3	35	662	7,564	81,416	1.38E-08	1.02E-08	2.6	1.21
									Total	1,324						

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Emissions per Vehicle per Hour (g/hour)	0.98274			
Emissions per Vehicle per Mile (g/VMT)	0.02808			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_EB_SIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	2.88E-05	9	7.11%	47	1.78E-04	17	7.38%	49	1.85E-04
2	0.42%	3	1.06E-05	10	4.39%	29	1.10E-04	18	8.18%	54	2.05E-04
3	0.41%	3	1.02E-05	11	4.66%	31	1.17E-04	19	5.70%	38	1.43E-04
4	0.26%	2	6.54E-06	12	5.89%	39	1.48E-04	20	4.27%	28	1.07E-04
5	0.50%	3	1.25E-05	13	6.15%	41	1.54E-04	21	3.26%	22	8.18E-05
6	0.90%	6	2.27E-05	14	6.04%	40	1.52E-04	22	3.30%	22	8.28E-05
7	3.79%	25	9.50E-05	15	7.01%	46	1.76E-04	23	2.46%	16	6.18E-05
8	7.76%	51	1.95E-04	16	7.14%	47	1.79E-04	24	1.87%	12	4.69E-05
								Total		662	

2026 Hourly Traffic Volumes Per Direction and TOG Evaporative Emissions - TEVAP_WB_SIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	8	2.89E-05	9	7.11%	47	1.79E-04	17	7.38%	49	1.86E-04
2	0.42%	3	1.06E-05	10	4.39%	29	1.10E-04	18	8.18%	54	2.05E-04
3	0.41%	3	1.02E-05	11	4.66%	31	1.17E-04	19	5.70%	38	1.43E-04
4	0.26%	2	6.55E-06	12	5.89%	39	1.48E-04	20	4.27%	28	1.07E-04
5	0.50%	3	1.25E-05	13	6.15%	41	1.55E-04	21	3.26%	22	8.19E-05
6	0.90%	6	2.27E-05	14	6.04%	40	1.52E-04	22	3.30%	22	8.29E-05
7	3.79%	25	9.52E-05	15	7.01%	46	1.76E-04	23	2.46%	16	6.19E-05
8	7.76%	51	1.95E-04	16	7.14%	47	1.79E-04	24	1.87%	12	4.69E-05
								Total		662	

3315 Sierra Road, San Jose, CA - On-Site Residential
Cumulative Operation - Rotten Robbie Trips on Sierra Road
Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
Year = 2026

Road Link	Description	Direction	No. Lanes	Link Length (m)	Link Length (mi)	Link Width (m)	Link Width (ft)	Release Height (m)	Average Speed (mph)	Average Vehicles per Day	Area (sq m)	Area (sq ft)	Emission (g/s/m2)	Emission (lb/hr/ft2)	Initial Vertical height	(Sigma z) Initial Vertical Dimension
FUG_NB_PIE	Gas Station Trips on Sierra Road Eastbound	EB	1	782.1	0.49	9.7	32	1.3	35	662	7,553	81,302	9.63E-09	7.10E-09	2.6	1.21
FUG_SB_PIE	Gas Station Trips on Sierra Road Westbound	WB	1	783.2	0.49	9.7	32	1.3	35	662	7,564	81,416	9.63E-09	7.10E-09	2.6	1.21
									Total	1,324						

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	35			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00201			
Brake Wear - Emissions per Vehicle (g/VMT)	0.00462			
Road Dust - Emissions per Vehicle (g/VMT)	0.01290			
tal Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.01952			

Emisson Factors from CT-EMFAC2021

2026 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_NB_PIE

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	8	2.01E-05	9	7.11%	47	1.24E-04	17	7.38%	49	1.29E-04
2	0.42%	3	7.34E-06	10	4.39%	29	7.65E-05	18	8.18%	54	1.43E-04
3	0.41%	3	7.07E-06	11	4.66%	31	8.14E-05	19	5.70%	38	9.94E-05
4	0.26%	2	4.55E-06	12	5.89%	39	1.03E-04	20	4.27%	28	7.45E-05
5	0.50%	3	8.70E-06	13	6.15%	41	1.07E-04	21	3.26%	22	5.69E-05
6	0.90%	6	1.58E-05	14	6.04%	40	1.05E-04	22	3.30%	22	5.76E-05
7	3.79%	25	6.61E-05	15	7.01%	46	1.22E-04	23	2.46%	16	4.30E-05
8	7.76%	51	1.35E-04	16	7.14%	47	1.25E-04	24	1.87%	12	3.26E-05
								Total		662	

2026 Hourly Traffic Volumes Per Direction and Fugitive PM2.5 Emissions - FUG_SB_PIE

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	8	2.01E-05	9	7.11%	47	1.24E-04	17	7.38%	49	1.29E-04
2	0.42%	3	7.35E-06	10	4.39%	29	7.67E-05	18	8.18%	54	1.43E-04
3	0.41%	3	7.08E-06	11	4.66%	31	8.15E-05	19	5.70%	38	9.96E-05
4	0.26%	2	4.56E-06	12	5.89%	39	1.03E-04	20	4.27%	28	7.46E-05
5	0.50%	3	8.71E-06	13	6.15%	41	1.08E-04	21	3.26%	22	5.69E-05
6	0.90%	6	1.58E-05	14	6.04%	40	1.05E-04	22	3.30%	22	5.77E-05
7	3.79%	25	6.62E-05	15	7.01%	46	1.23E-04	23	2.46%	16	4.30E-05
8	7.76%	51	1.36E-04	16	7.14%	47	1.25E-04	24	1.87%	12	3.26E-05
								Total		662	