

Appendix B
Air Quality Assessment

681 E. TRIMBLE ROAD & SEELY AVENUE MIXED-USE DEVELOPMENT AIR QUALITY ASSESSMENT

San José, California

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Introduction

The purpose of this report is to address air quality and health risk impacts associated with the proposed 681 E. Trimble Road and Seely Avenue Mixed-Use Development project located in San José, California. The air quality impacts from this project would be associated with the demolition of the existing land uses, construction of the new buildings and infrastructure, and operation of the project. Air pollutants associated with construction and operation of the project were predicted using appropriate computer models. In addition, the potential project health risk impacts (construction and operation) and the impacts of existing toxic air contaminant (TAC) sources affecting the 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 existing 22.2-acre project site includes mostly vacant land and is only occupied by two residences, a fruit stand, and agricultural land. The project proposes to demolish the existing land uses to construct 1,470 residential units, 56,500 square-foot (sf) of retail space, a 2.5-acre public park, associate development roadways, and a 0.1-acre domestic water well site for San Jose Municipal Water. The development would include a mix of 154 three-story townhomes, three seven- to eight-story market-rate mixed-use buildings (Buildings 1-3) with 380 residential units and 5,431-sf of retail in Building 1, 386 residential units and 44,415-sf of retail in Building 2, and 378 residential units and 6,653-sf of retail in Building 3, and a six-story, 172-unit affordable housing building. At- or above-grade parking would be provided in Buildings 1-3 and the affordable housing building and attached two-car garage would be provided for the townhomes, for a total of 2,120 parking spaces.

Updates to Project

Several changes to the proposed Project have occurred since the original air quality analysis was completed. These changes included a slight increase in residential units, a substantial decrease in retail square footage, Buildings 1, 2, and 3 would now be constructed in the order Buildings 2, 1, and 3, and the new on-site water well would require a 500-kilowatt diesel-powered generator for emergency operations.

The land use changes and construction building phasing would not change construction assumptions such that emissions would be greater. Compared to the original plan that was analyzed for construction impacts, the total land use square-footage would overall decrease and the planned construction activities would occur in different years. However, the total construction equipment quantities and usage would be the same, such that impacts and potential mitigation would remain the same. Therefore, the construction analyses in this study were not updated.

The operational modeling which utilized CalEEMod and EMFAC2021 was updated. The land use changes resulted in changes to traffic. In addition, the emergency generator for the water well would increase emissions based on testing and potential emergency operation.

¹ Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017.

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 (PM₁₀), and fine particulate matter (PM_{2.5}).

Air Pollutants of Concern

High ozone levels 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 high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM₁₀) and fine particulate matter where particles have a diameter of 2.5 micrometers or less (PM_{2.5}). Elevated concentrations of PM₁₀ and PM_{2.5} are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels 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

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants. 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 can result in adverse health effects, TACs 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 of diesel exhaust 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. The most recent Office of Environmental Health Hazard Assessment (OEHHA) risk assessment guidelines were published in February of 2015.² See *Attachment 1* for a detailed

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.

description of the health risk modeling methodology used in this assessment.

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, the elderly 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, elementary schools, and parks. For cancer risk assessments, 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 to the northwest of the project site. There are more sensitive receptors located at farther distances to the northwest. The project would introduce new sensitive receptors (i.e., residents) to the area.

Regulatory Setting

Federal Regulations

The United States Environmental Protection Agency (EPA) sets nationwide emission standards for mobile sources, which include on-road (highway) motor vehicles such trucks, buses, and automobiles, and non-road (off-road) vehicles and equipment used in construction, agricultural, industrial, and mining activities (such as bulldozers and loaders). The EPA also sets nationwide fuel standards. California also has the ability to set motor vehicle emission standards and standards for fuel used in California, as long as they are the same or more stringent than the federal standards.

In the past decade the EPA has established a number of emission standards for on- and non-road heavy-duty diesel engines used in trucks and other equipment. This was done in part because diesel engines are a significant source of NO_x and particulate matter (PM₁₀ and PM_{2.5}) and because the EPA has identified DPM as a probable carcinogen. Implementation of the heavy-duty diesel on-road vehicle standards and the non-road diesel engine standards are estimated to reduce particulate matter and NO_x emissions from diesel engines up to 95 percent in 2030 when the heavy-duty vehicle fleet is completely replaced with newer heavy-duty vehicles that comply with these emission standards.³

In concert with the diesel engine emission standards, the EPA has also substantially reduced the amount of sulfur allowed in diesel fuels. The sulfur contained in diesel fuel is a significant contributor to the formation of particulate matter in diesel-fueled engine exhaust. The new standards reduced the amount of sulfur allowed by 97 percent for highway diesel fuel (from 500 parts per million by weight [ppmw] to 15 ppmw), and by 99 percent for off-highway diesel fuel (from about 3,000 ppmw to 15 ppmw). The low sulfur highway fuel (15 ppmw sulfur), also called ultra-low sulfur diesel (ULSD), is currently required for use by all vehicles in the U.S.

³ USEPA, 2000. *Regulatory Announcement, Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements*. EPA420-F-00-057. December.

All of the above federal diesel engine and diesel fuel requirements have been adopted by California, in some cases with modifications making the requirements more stringent or the implementation dates sooner.

State Regulations

To address the issue of diesel emissions in the state, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.⁴ In addition to requiring more stringent emission standards for new on-road and off-road mobile sources and stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, a significant component of the plan involves application of emission control strategies to existing diesel vehicles and equipment. Many of the measures of the Diesel Risk Reduction Plan have been approved and adopted, including the federal on-road and non-road diesel engine emission standards for new engines, as well as adoption of regulations for low sulfur fuel in California.

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. CARB regulations require on-road diesel trucks to be retrofitted with particulate matter controls or replaced to meet 2010 or later engine standards that have much lower DPM and PM_{2.5} emissions. This regulation will substantially reduce these emissions between 2013 and 2023. While new trucks and buses will meet strict federal standards, this measure is intended to accelerate the rate at which the fleet either turns over so there are more cleaner vehicles on the road or is retrofitted to meet similar standards. With this regulation, older, more polluting trucks would be removed from the roads sooner.

CARB has also adopted and implemented regulations to reduce DPM and NO_x emissions from in-use (existing) and new off-road heavy-duty diesel vehicles (e.g., loaders, tractors, bulldozers, backhoes, off-highway trucks, etc.). The regulations apply to diesel-powered off-road vehicles with engines 25 horsepower (hp) or greater. The regulations are intended to reduce particulate matter and NO_x exhaust emissions by requiring owners to turn over their fleet (replace older equipment with newer equipment) or retrofit existing equipment in order to achieve specified fleet-averaged emission rates. Implementation of this regulation, in conjunction with stringent federal off-road equipment engine emission limits for new vehicles, will significantly reduce emissions of DPM and NO_x.

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 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.

⁴ California Air Resources Board, 2000. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. October.

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.⁵ 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 is being 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 will be used to focus emission reduction measures 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. 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,⁶ as having an overall CalEnviroScreen score at or above the 70th percentile, or (ii) within 1,000 feet of any such census tract.⁷ The BAAQMD has identified six communities as impacted: Concord, Richmond/San Pablo, Western Alameda County, San José, Redwood City/East Palo Alto, and Eastern San Francisco. The project site is located in the San José CARE area but not within a BAAQMD overburdened area as identified by CalEnviroScreen as the Project site is scored at the 39th percentile.

The BAAQMD California Environmental Quality Act (CEQA) *Air Quality Guidelines*⁸ were prepared to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process consistent with CEQA requirements including thresholds of significance, mitigation measures, and background air quality information. They also include assessment methodologies for air toxics, odors, and greenhouse gas emissions. *Attachment 1* includes detailed health risk modeling methodology.

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:

⁵ See BAAQMD: <https://www.baaqmd.gov/community-health/community-health-protection-program/community-air-risk-evaluation-care-program>, accessed 2/18/2021.

⁶ OEHHA, CalEnviroScreen 4.0, 2021. Web: <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>

⁷ See BAAQMD: https://www.baaqmd.gov/~media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20210722_01_appendixd_mapsofverburdenedcommunities-pdf.pdf?la=en, accessed 10/1/2021.

⁸ Bay Area Air Quality Management District, 2017. *CEQA Air Quality Guidelines*. May.

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-11.2 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 toxic air contaminants (TACs) and particulate matter smaller than 2.5 microns (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.

Significance Thresholds

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA and these significance thresholds were contained in the District's 2011 CEQA Air

Quality Guidelines. These thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA. The thresholds were challenged through a series of court challenges and were mostly upheld. BAAQMD updated the CEQA Air Quality Guidelines in 2017 to include the latest significance thresholds, which were used in this analysis and are summarized in Table 1. Impacts above the threshold are considered potentially significant.

Table 1. BAAQMD CEQA Significance Thresholds

Criteria Air Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀	82 (Exhaust)	82	15
PM _{2.5}	54 (Exhaust)	54	10
Local CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust (PM ₁₀ /PM _{2.5})	Construction Dust Ordinance or other Best Management Practices	None	
Health Risks and Hazards	Single Sources Within 1,000-foot Zone of Influence	Combined Sources (Cumulative from all sources within 1000-foot zone of influence)	
Excess Cancer Risk	10 per one million	100 per one million	
Hazard Index	1.0	10.0	
Incremental annual PM _{2.5}	0.3 µg/m ³	0.8 µg/m ³	
Notes: (1.) ROG = reactive organic gases, NO _x = 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. (2.) Zone of influence is 1,000 feet from facility boundaries of new sources or from new sensitive receptors.			

Source: Bay Area Air Quality Management District, 2017

AIR QUALITY IMPACTS AND MITIGATION MEASURES

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

BAAQMD is the regional agency responsible for overseeing compliance with State and Federal laws, regulations, and programs within the San Francisco Bay Area Air Basin (SFBAAB). BAAQMD, with assistance from the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC), prepares and implements specific plans to meet the applicable laws, regulations, and programs. The most recent and comprehensive of which is the *Bay Area 2017 Clean Air Plan*.⁹ The primary goals of the Clean Air Plan are to attain air quality standards, reduce population exposure and protect public health, and reduce GHG emissions and protect the climate. The BAAQMD has also developed CEQA guidelines to assist lead agencies in evaluating the significance of air quality and GHG impacts. In formulating compliance strategies, BAAQMD relies on planned land uses established by local general plans. Land use planning affects vehicle travel, which, in turn, affects region-wide emissions of air pollutants and GHGs.

The 2017 Clean Air Plan, adopted by BAAQMD in April 2017, includes control measures that are intended to reduce air pollutant emissions in the Bay Area either directly or indirectly. Plans must show consistency with the control measures listed within the Clean Air Plan. At the project-level, there are no consistency measures or thresholds. The proposed project would not conflict with the latest Clean Air planning efforts since 1) the project would be considered urban infill, 2) the project would be located near employment centers, 3) the project would be located near transit with regional connections.

Impact AIR-2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The Bay Area is considered a non-attainment area for ground-level ozone and PM_{2.5} under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM₁₀ under the California Clean Air Act, but not the federal act. The area has attained both State and federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM₁₀, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for ozone precursor pollutants (ROG and NO_x), PM₁₀, and PM_{2.5} and apply to both construction period and operational period impacts.

Construction Period Emissions

The California Emissions Estimator Model (CalEEMod) Version 2020.4.0 was used to estimate emissions from on-site construction activity, construction vehicle trips, and evaporative emissions. The project land use types and size, and anticipated construction schedule were input to CalEEMod. The CARB Emission FACtors 2021 (EMFAC2021) model was used to predict

⁹ Bay Area Air Quality Management District (BAAQMD), 2017. *Final 2017 Clean Air Plan*.

emissions from construction traffic, which includes worker travel, vendor trucks, and haul trucks.¹⁰ The CalEEMod model output along with construction inputs are included in *Attachment 2* and EMFAC2021 vehicle emissions modeling outputs are included in *Attachment 3*.

CalEEMod Inputs

Land Use Inputs

The proposed project would be constructed in six phases. Separate CalEEMod runs were conducted for each phase as each phase would construct new buildings and roadways over several years. The land uses for each construction phase were entered into CalEEMod as described in Table 2.

Table 2. Construction Land Uses Entered into CalEEMod

Project Land Uses	Size	Units	Square Feet	Acreage
Infrastructure (2024)				
Apartments Mid Rise	1,316	Dwelling Unit	1,998,854	22.2
Condo/Townhouse	154	Dwelling Unit	371,535	
Regional Shopping Center	56.50	1,000-sf	56,500	
City Park	2.50	Acres	108,900	
Building 1 (2024 – 2025)				
Apartments Mid Rise	380	Dwelling Unit	405,463	2.12
Regional Shopping Center	5.43	1,000-sf	5,431	
Enclosed Parking with Elevator	559	Parking Spaces	177,758	
Townhomes (2024 – 2027)				
Condo/Townhouse	154	Dwelling Unit	301,313	7.28
Enclosed Parking Structure	348	Parking Spaces	70,222	
Affordable Housing (2024 – 2025)				
Apartments Mid Rise	172	Dwelling Unit	136,000	1.24
Enclosed Parking with Elevator	86	Parking Spaces	33,405	
Building 2 (2024 – 2026)				
Apartments Mid Rise	386	Dwelling Unit	407,119	2.12
Regional Shopping Center	44.42	1,000-sf	44,415	
Enclosed Parking with Elevator	595	Parking Spaces	231,520	
Building 3 (2026 – 2027)				
Apartments Mid Rise	378	Dwelling Unit	414,015	2.12
Regional Shopping Center	6.65	1,000-sf	6,653	
Enclosed Parking with Elevator	532	Parking Spaces	193,575	

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 list and schedule, were based on project-specific construction information provided by the project applicant.

¹⁰ See CARB’s EMFAC2021 Emissions Inventory at <https://arb.ca.gov/emfac/emissions-inventory>

The CalEEMod construction equipment worksheet provided by the applicant included the schedule for each phase (included in *Attachment 2*). Within each phase, the quantity of equipment to be used along with the average hours per day and total number of workdays were provided. Since different equipment would have different estimates of the working days per phase, the hours per day for each phase was computed by dividing the total number of hours that the equipment would be used by the total number of days in that phase. The construction schedule assumed that the earliest possible start date would be February 2024 and would be built out over a period of approximately 4 years, or 1,251 construction workdays. The earliest year of full operation was assumed to be 2028.

Construction 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 estimate of demolition material to be exported, soil material imported and/or exported to the site, and the estimate of cement and asphalt truck trips. CalEEMod provides daily estimates of worker and vendor trips for each applicable phase. The total trips for those were computed by multiplying the daily trip rate by the number of days in that phase. Haul trips were estimated from the provided demolition and grading volumes by assuming each truck could carry 10 tons per load. The number of concrete and asphalt total round haul trips were provided for the project and converted to total one-way trips, assuming two trips per delivery.

The latest version of the CalEEMod model is based on the older version of the CARB EMFAC2017 motor vehicle emission factor model. This model has been superseded by the EMFAC2021 model; however, CalEEMod has not been updated to include EMFAC2021. The construction traffic information was combined with EMFAC2021 motor vehicle emissions factors. EMFAC2021 provides aggregate emission rates in grams per mile for each vehicle type. The vehicle mix for this study was based on CalEEMod defaults, where worker trips are assumed to be comprised of light-duty autos (EMFAC category LDA) and light duty trucks (EMFAC category LDT1 and LDT2). Vendor trips are comprised of delivery and large trucks (EMFAC category MHDT and HHDT) and haul trips, including cement trucks, are comprised of large trucks (EMFAC category HHDT). Travel distances are based on CalEEMod default lengths, which are 10.8 miles for worker travel, 7.3 miles for vendor trips and 20 miles for hauling (demolition material export and soil import/export). Since CalEEMod does not address cement or asphalt trucks, these were treated as vendor travel distances. Each trip was assumed to include an idle time of 5 minutes. Emissions associated with vehicle starts were also included. On-road emission rates from the years 2024-2027 for Santa Clara County were used. Table 3 provides the traffic inputs that were combined with the EMFAC2021 emission database to compute vehicle emissions.

Table 3. Construction Traffic Data Used for EMFAC2021 Model Runs

CalEEMod Run/Land Uses and Construction Phase	Trips by Trip Type			Notes
	Total Worker ¹	Total Vendor ¹	Total Haul ²	
Vehicle mix ¹	50% LDA 25% LDT1 25% LDT2	50% MHDT 50% HHDT	100% HHDT	
Trip Length (miles)	10.8	7.3	20.0 (Demo/Soil) 7.3 (Cement/Asphalt)	CalEEMod default distance with 5-min truck idle time.
Infrastructure (2024)				
Demolition	120	-	106	8,000-sf existing building and 350 tons of pavement demolition. CalEEMod default worker trips.
Site Preparation	2,112	-	3,000	23,000-cy of export volume. 1,000-cy of import volume. CalEEMod default worker trips.
Trenching/Utilities	325	-	-	CalEEMod default worker trips.
Paving	660	-	1,560	6,500-cy asphalt hauling. CalEEMod default worker trips.
Building 1 (2024 – 2025)				
Site Preparation	210	-	-	CalEEMod default worker trips.
Trenching	168	-	-	CalEEMod default worker trips.
Building Construction	98,700	20,022	2,600	1,300 cement truck round trips. CalEEMod default worker and vendor trips.
Architectural Coating	11,970	-	-	CalEEMod default worker trips.
Paving	130	-	27	113-cy asphalt hauling. CalEEMod default worker trips.
Townhomes (2024 – 2027)				
Trenching/Utilities	490	-	-	CalEEMod default worker trips.
Paving	728	-	400	50 cement truck and 150 asphalt truck round trips. CalEEMod default worker trips.
Building Foundation	7,700	-	-	CalEEMod default worker trips.
Building Construction	102,200	20,440	600	300 cement truck round trips. CalEEMod default worker and vendor trips.
Architectural Coating	10,220	-	-	CalEEMod default worker trips.
Affordable Housing (2024 – 2025)				
Site Preparation	100	-	-	CalEEMod default worker trips.
Trenching	80	-	-	CalEEMod default worker trips.
Building Construction	26,910	4,680	400	200 cement truck round trips. CalEEMod default worker and vendor trips.
Architectural Coating	3,668	-	-	CalEEMod default worker trips.
Paving	150	-	-	CalEEMod default worker trips.
Building 2 (2024 – 2026)				
Site Preparation	210	-	-	CalEEMod default worker trips.
Trenching	168	-	-	CalEEMod default worker trips.
Building Construction	134,983	29,842	3,800	1,900 cement truck round trips. CalEEMod default worker and vendor trips.
Architectural Coating	16,926	-	-	CalEEMod default worker trips.

Paving	130	-	27	113-cy asphalt hauling. CalEEMod default worker trips.
Building 3 (2026 – 2027)				
Site Preparation	210	-	-	CalEEMod default worker trips.
Trenching	168	-	-	CalEEMod default worker trips.
Building Construction	100,392	20,586	3,400	1,700 cement truck round trips. CalEEMod default worker and vendor trips.
Architectural Coating	12,141	-	-	CalEEMod default worker trips.
Paving	100	-	27	113-cy asphalt hauling. CalEEMod default worker trips.
Notes: ¹ Based on 2024-2027 EMFAC2021 light-duty vehicle fleet mix for Santa Clara County. ² Includes demolition and grading trips estimated by CalEEMod based on amount of material to be removed. Cement and trips estimated based on data provided by the applicant.				

Summary of Computed Construction Period Emissions

Average daily emissions were annualized for each year of construction by dividing the annual construction emissions by the number of active workdays during that year. Table 4 shows the annualized average daily construction emissions of ROG, NO_x, PM₁₀ exhaust, and PM_{2.5} exhaust during construction of the project. As indicated in Table 4, predicted annualized project construction emissions would not exceed the BAAQMD significance thresholds during any year of construction.

Table 4. Construction Period Emissions

Year	ROG	NO _x	PM ₁₀ Exhaust	PM _{2.5} Exhaust
<i>Construction Emissions Per Year (Tons)</i>				
2024 (Infrastructure, Building 1, Townhomes, Affordable Housing, and Building 2)	0.39	2.84	0.14	0.10
2025 (Building 1, Townhomes, Affordable Housing, and Building 2)	4.50	3.56	0.20	0.14
2026 (Townhomes, Building 2, and Building 3)	5.54	2.26	0.13	0.09
2027 (Townhomes and Building 3)	3.32	1.14	0.06	0.05
<i>Average Daily Construction Emissions Per Year (pounds/day)</i>				
2024 (275 construction workdays)	2.83	20.65	1.04	0.76
2025 (365 construction workdays)	24.68	19.49	1.07	0.79
2026 (365 construction workdays)	30.37	12.37	0.72	0.50
2027 (246 construction workdays)	26.93	9.24	0.52	0.39
<i>BAAQMD Thresholds (pounds per day)</i>	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 PM₁₀ and PM_{2.5}. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are implemented to reduce these emissions and the project is less than screening criteria. *Mitigation Measure AQ-1 would implement BAAQMD-recommended standard best management practices.*

Mitigation Measure AQ-1: 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 recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less-than-significant level. Additional measures are identified to reduce construction equipment exhaust emissions. The contractor shall implement the following best management practices 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. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and 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 phone number shall also be visible to ensure compliance with applicable regulations.

Effectiveness of Mitigation Measure AQ-1

The measures above are consistent with BAAQMD-recommended basic control measures for reducing fugitive particulate matter that are contained in the BAAQMD CEQA Air Quality Guidelines.

Operational Period Emissions

Operational air emissions from the project would be generated primarily from autos driven by future residents, employees, customers, and vendors. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are typical emissions from these types of uses. CalEEMod was used to estimate emissions from operation of the proposed project assuming full build-out.

CalEEMod Inputs

Land Uses

All project land uses from the updated project were combined and input to CalEEMod for the operational period modeling in the year 2028. Inputs are summarized in Table 5. The model output and information supporting any changes to the model are contained in *Attachment 2*.

Table 5. Operational Land Uses Entered into CalEEMod

Project Land Uses	Size	Units	Square Feet	Acreage
Apartments Mid Rise	1,321	Dwelling Units	1,368,958	22.2
Condo/Townhouse	154	Dwelling Unit	301,313	
Regional Shopping Center	20.20	1,000-sf	20,197	
City Park	2.50	Acres	108,900	
Enclosed Parking with Elevator	1,772	Parking Spaces	576,518	
Enclosed Parking Structure	348	Parking Spaces	70,222	

Model Year

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. The earliest full year of operation would be 2028 if construction begins in 2024. Emissions associated with build-out later than 2028 would be lower.

Traffic Information

CalEEMod allows the user to enter specific vehicle trip generation rates. Therefore, the project-specific daily trip generation rate provided by the traffic consultant was entered into the model.¹¹ The proposed project would produce 5,664 new daily trips after a *Residential & Retail Internal Capture Reduction*, *Location-Based Vehicle Mode Share Reduction*, *Project-Specific Trip Reduction* (i.e., includes effects of Project TDM measures), and *Retail Pass-By External Trip Reduction*. The daily trip generation was calculated using the size of the project and the adjusted total vehicle trips. The Saturday and Sunday trip rates were adjusted by multiplying the ratio of the CalEEMod default rates for Saturday and Sunday trips to the default weekday rate with the project-specific daily weekday trip rate. The default trip lengths and trip types specified by

¹¹ Hexagon Transportation Consultants, Inc., *Seely Avenue Residential Mixed-Use Project (Preferred Alternative)*, April 28, 2023.

CaleEMod were used.

EMFAC2021 Adjustment

The vehicle emission factors and fleet mix used in CaleEMod are based on EMFAC2017, which is an older CARB emission inventory for on road and off-road mobile sources. Since the release of CaleEMod Version 2020.4.0, new emission factors have been produced by CARB. EMFAC2021 became available for use in January 2021. It includes the latest data on California's car and truck fleets and travel activity. The CaleEMod vehicle emission factors and fleet mix were updated with the emission rates and fleet mix from EMFAC2021, which were adjusted with the CARB EMFAC off-model adjustment factors. On road emission rates from 2028 Santa Clara County were used (See *Attachment 3*). More details about the updates in emissions calculation methodologies and data are available in the EMFAC2021 Technical Support Document.¹²

Electric Vehicle Population

Adjustments to mobile emissions for ROG and NOx were made based on the recently adopted Advanced Clean Car II regulation (ACC II) that was adopted in November 2022.¹³ This new regulation will increase the number of light-duty automobile and truck EVs on the road by setting zero-emission vehicle (ZEV) sales standards in California. ACC II will reduce emissions from light-duty vehicles starting in the year 2026. ZEV vehicles will make up a greater proportion of the vehicle fleet than currently reflected in the EMFAC2021 model. EV light duty auto and truck sales will make up 35 percent of sales in 2026, 43 percent in 2027 and 51 percent in 2028 when the project becomes operational. The light-duty vehicle portion of the fleet mix in Santa Clara County with ACC II was calculated and compared to the default assumptions in EMFAC2021. The mobile portion of the project emissions were reduced by 4% reduction for ROG emissions and a 2% reduction for NOx emissions.

Energy

CaleEMod defaults for energy use were used, which include the 2019 Title 24 Building Standards. GHG emissions modeling includes those indirect emissions from electricity consumption. The electricity produced emission rate was modified in CaleEMod. An emission factor of 178 pounds of CO₂ per megawatt of electricity produced was entered into CaleEMod, which is based on San Jose Clean Energy's 2020 emissions rate.¹⁴ It should be noted that per Climate Smart San Jose and San Jose's Greenhouse Gas Reduction Strategy, SJCE's goal is provision of 100-percent carbon-free electricity prior to 2030.¹⁵

¹² See CARB 2021: <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-modeling-tools-emfac>

¹³ Advanced Clean Cars II, web: <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii>

¹⁴ San Jose Clean Energy Website, Standard Greensource service. Web: <https://sanjosecleanenergy.org/commercial-rates/>

¹⁵ City of San José, 2020. "2030 Greenhouse Gas Reduction Strategy", August. Web: <https://www.sanjoseca.gov/home/showpublisheddocument/63667/637347412207870000>

The City of San José passed an ordinance in December 2020 that prohibits the use of natural gas infrastructure in new residential, office, and most retail-type buildings.¹⁶ This ordinance applies to any new construction starting August 1, 2021. Natural gas use for the residential land use was set to zero and assigned to electricity use in CalEEMod. Natural gas use was assumed for the retail use as a restaurant could occupy the space. Restaurants are allowed to use natural gas under the City's ordinance.

Wood-Burning Devices

CalEEMod default inputs assume new residential construction would include woodburning fireplaces and stoves. The project would not include wood-burning devices, as these devices are prohibited by BAAQMD Regulation 6, Rule 3.¹⁷ Therefore, the number of woodstoves and woodburning fireplaces in CalEEMod were set to zero.

Consumer Products

The project's area sources for operational ROG emissions would include consumer products. These products include cleaning supplies, kitchen aerosols, cosmetics, toiletries, and other solvents. The default CalEEMod emission factor for these consumer products was updated to reflect more recent Santa Clara County conditions. Updated ROG emission rates were computed using the CalEEMod methodology that utilized 2020 county wide consumer product category emissions and total building square footages. The CARB 2030 emission inventory for consumer products under solvent evaporation (Consumer Products) were divided by total building square footage. The total building square footage, representative of year 2022, was obtained from the FEMA HAZUS-MH software. Adjustments of square footage for Project opening year conditions were adjusted using the change in populations obtained from the California Department of Finance. The updated consumer products ROG emission factor was computed to be 1.84 E^{-05} pounds per square foot per day and used for this analysis.

Project Generator

The project would include one emergency generator as part of a groundwater well located on Lot 3 in the southeast corner of the project site. The generator size has not been determined at this time. It is assumed to be smaller than 500 kilowatts (kW), since that was the size of a generator for a well approved for the Trimble and Agnews Municipal Groundwater Wells Project. The Agnews generator would support three wells, where this project's generator would support one well. Therefore, the Project was assumed to include a 500-kW standby emergency generator powered by a 670 horsepower (HP) diesel engine. The generator would be tested periodically and power the well in the event of a power failure. For modeling purposes, it was assumed that the generator would be operated for testing and maintenance purposes as well as non-testing purposes per BAAQMD's newest Guidelines. CARB and BAAQMD requirements limit these engine operations to 50 hours each per year for testing and maintenance, and new BAAQMD Guidelines

¹⁶ City of San José, 2020. "Expand Natural Gas Ban", December. Web: <https://www.sanjoseca.gov/Home/Components/News/News/2210/4699>

¹⁷ Bay Area Air Quality Management District, https://www.baaqmd.gov/~/media/dotgov/files/rules/regulation-6-rule-3/documents/20191120_r0603_final-pdf.pdf?la=en

recommend including 100 hours each year for non-testing and non-maintenance operations. During testing periods, the engine would typically be run for less than one hour. The engine would be required to meet CARB and EPA emission standards and consume commercially available California low-sulfur diesel fuel. Additionally, the generator would have to meet BAAQMD BACT requirements for IC Engine-Compression Ignition: Stationary Emergency, non-Agricultural, non-direct drive fire pump sources. The emissions from the operation of the generator were calculated using the CalEEMod model.

Other Inputs

Default model assumptions for emissions associated with solid waste generation and water/wastewater use were applied to the project. Water/wastewater use was changed to 100% aerobic conditions to represent wastewater treatment plant conditions. The project site would not send wastewater to septic tanks or facultative lagoons.

Existing Uses

The site currently consists of two existing residences, a fruit stand, and agricultural land. These uses produce low operational and traffic emissions which would not considerably offset emissions from the proposed project. In addition, no project-specific trip generation rates for the existing land uses were available for this assessment. Therefore, the emissions from the existing uses were not considered.

Summary of Computed Operational Emissions

Annual emissions were computed using CalEEMod and daily emissions were calculated assuming 365 days of operation per year. As shown in Table 6, unmitigated operational emissions would exceed the BAAQMD significance thresholds for ROG during operation of the project. Emissions of other air pollutants would be below the thresholds. However, with mitigation operational ROG emissions would be below the threshold. Details of the emissions modeling are included in *Attachment 2*.

Table 6. Operational Period Emissions

Scenario	ROG	NOx	PM ₁₀	PM _{2.5}
Unmitigated 2028 Annual Operational Emissions (tons/year)	10.00	2.11	4.25	1.13
Mitigated 2028 Annual Operational Emissions (tons/year)	8.98	2.11	4.25	1.13
<i>BAAQMD Thresholds (tons/year)</i>	<i>10 tons</i>	<i>10 tons</i>	<i>15 tons</i>	<i>10 tons</i>
<i>Exceed Threshold?</i>				
Unmitigated	Yes	<i>No</i>	<i>No</i>	<i>No</i>
Mitigated	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Unmitigated 2028 Daily Operational Emissions –(lbs/day) ¹	54.82	11.59	23.31	6.21
Mitigated 2028 Daily Operational Emissions – (lbs/day) ¹	49.22	11.59	23.31	6.21
<i>BAAQMD Thresholds (pounds/day)</i>	<i>54 lbs.</i>	<i>54 lbs.</i>	<i>82 lbs.</i>	<i>54 lbs.</i>
<i>Exceed Threshold?</i>				
Unmitigated	Yes	<i>No</i>	<i>No</i>	<i>No</i>
Mitigated	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Notes: ¹ Assumes 365-day operation.

Mitigation Measure AQ-2: Require use of low exterior VOC coatings for to reduce ROG emissions.

The project shall use low volatile organic compound or VOC (i.e., ROG) coatings, that are below current BAAQMD requirements (i.e., Regulation 8, Rule 3: Architectural Coatings), for at least 90 percent of all residential and nonresidential interior paints and 80 percent of exterior paints. This includes all architectural coatings applied during both construction and reapplications throughout the project's operational lifetime. At least 90 percent and 80 percent of coatings applied for interior and exterior, respectively, must meet a "super-compliant" VOC standard of less than 10 grams of VOC per liter of paint. For reapplication of coatings during the project's operational lifetime, the Declaration of Covenants, Conditions, and Restrictions shall contain a stipulation for low VOC coatings to be used. Examples of "super-compliant" coatings are contained in the South Coast Air Quality Management District's website.¹⁸

Effectiveness of Mitigation AQ-2

During operation, the CalEEMod modeling found the implementation of MM AQ-2 would reduce total ROG emissions by 10 percent. Consumer product and mobile sources would make up a majority of the ROG emissions. Operational ROG emissions would no longer exceed the BAAQMD threshold of 54 pounds per day with mitigation.

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

Project impacts related to increased health risk can occur either by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity or by significantly exacerbating existing cumulative TAC impacts. The project would introduce new sources of TACs during construction (i.e., on-site construction and truck hauling emissions) and operation (i.e., stationary and mobile sources).

Project construction activity would generate dust and equipment exhaust that would affect nearby sensitive receptors. The project would also include the installation of an emergency generators powered by a diesel engine and would generate some traffic consisting of mostly light-duty vehicles, which would produce TAC and air pollutant emissions.

Project impacts to existing sensitive receptors were addressed for temporary construction activities and long-term operational conditions. There are also several sources of existing TACs and localized air pollutants in the vicinity of the project. The impact of the existing sources of TAC was also assessed in terms of the cumulative risk which includes the project contribution; as well as the risk on the new sensitive receptors introduced by the project.

Health Risk Methodology for Construction and Operation

Health risk impacts were addressed by predicting increased cancer risk, the increase in annual PM_{2.5} concentrations and computing the Hazard Index (HI) for non-cancer health risks. The risk impacts from the project are the combination of risks from construction and operation sources.

¹⁸ SCAQMD: <http://www.aqmd.gov/home/regulations/compliance/architectural-coatings/super-compliant-coatings>

These sources include on-site construction activity, construction truck hauling, emergency generator operation, and increased traffic from the project. To evaluate the increased cancer risks from the project, a 30-year exposure period was used, per BAAQMD guidance,¹⁹ with the sensitive receptors being exposed to both project construction and operation emissions during this timeframe.

The project increased cancer risk is computed by summing the project construction cancer risk and operation cancer risk contributions. Unlike, the increased maximum cancer risk, the annual PM_{2.5} concentration and HI values are not additive but based on the annual maximum values for the entirety of the project. The project maximally exposed individual (MEI) is identified as the sensitive receptor that is most impacted by the project's construction and operation.

The methodology for computing health risks impacts is contained in *Attachment 1*. This involved the calculation of TAC and PM_{2.5} emissions, dispersion modeling of these emissions, and computations of cancer risk and non-cancer health effects.

Modeled Sensitive Receptors

Receptors for this assessment included locations where sensitive populations would be present for extended periods of time (i.e., chronic exposures). This includes the nearby existing residences to the northwest, as shown in Figure 1. Residential receptors are assumed to include all receptor groups (i.e., third trimester, infants, children, and adults) with almost continuous exposure to project emissions.

Health Risks from Project Construction

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. These exhaust air pollutant emissions would not be considered to contribute substantially to existing or projected air quality violations. Construction exhaust emissions may still pose health risks for sensitive receptors such as surrounding residents. The primary health risk impact issue associated with construction emissions are cancer risk and exposure to PM_{2.5}. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. 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}.²⁰ This assessment included dispersion modeling to predict the offsite and onsite concentrations resulting from project construction, so that increased cancer risks and non-cancer health effects could be evaluated.

Construction Emissions

The CalEEMod and EMFAC2021 models provided total annual PM₁₀ exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles. Total emissions from all construction stages are reported in Table 7 and are on an annual basis. The annual on-road emissions result from haul truck travel during demolition and grading

¹⁹ BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. December 2016.

²⁰ DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.

activities, worker travel, and vendor deliveries during construction. A trip length of one mile was used for vehicle travel while at or near the construction site to represent localized vehicle emissions from construction. The emissions from on-road vehicles traveling at or near the site were modeled to occur at the construction site. Fugitive PM_{2.5} dust emissions were computed by CalEEMod for the overall construction period and are included as part of the total PM_{2.5} emissions reported in Table 7.

Table 7. Annual Unmitigated Construction Emissions of DPM and Fugitive PM_{2.5} (tons)

Contaminant	2024	2025	2026	2027
PM ₁₀ Exhaust (DPM)	0.0948	0.1289	0.0782	0.0412
PM _{2.5} Fugitive	0.0184	0.0117	0.0096	0.0038

Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict DPM and PM_{2.5} concentrations at sensitive receptors (residences) 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.^{21,22} Emission sources for the construction site were grouped into two categories: exhaust emissions of DPM and fugitive PM_{2.5} dust emissions.

Construction Sources

The AERMOD modeling utilized 12 area sources to represent the on-site construction emissions from the different construction phases (see Figure 1), six areas for exhaust emissions of DPM and six areas for fugitive PM_{2.5} dust emissions. To represent the construction equipment exhaust emissions, an area source emission release height of 20 feet (6 meters) was used for the area sources.²³ The release height incorporates both the physical release height from the construction equipment (i.e., the height of the exhaust pipe) and plume rise after it leaves the exhaust pipe. Plume rise is due to both the high temperature of the exhaust and the high velocity of the exhaust gas. It should be noted that when modeling an area source, plume rise is not calculated by the AERMOD dispersion model as it would do for a point source (exhaust stack). Therefore, the release height from an area source used to represent emissions from sources with plume rise, such as construction equipment, should be based on the height the exhaust plume is expected to achieve, not just the height of the top of the exhaust pipe. Emissions from vehicle travel on- and off-site were distributed among the exhaust emission area sources throughout the site. The locations of the area sources used for the modeling are identified in Figure 1.

For modeling fugitive PM_{2.5} emissions, a near-ground level release height of 7 feet (2 meters) was used for the area source. Fugitive dust emissions at construction sites come from a variety of sources, including truck and equipment travel, grading activities, truck loading (with loaders) and

²¹ BAAQMD, 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>

²² BAAQMD, 2020, *BAAQMD Health Risk Assessment Modeling Protocol*. December. Web: https://www.baaqmd.gov/~media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol-pdf.pdf?la=en

²³ California Air Resource Board, 2007. *Proposed Regulation for In-Use Off-Road Diesel Vehicles, Appendix D: Health Risk Methodology*. April. Web: <https://ww3.arb.ca.gov/regact/2007/ordiesl07/ordiesl07.htm>

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. Emissions from the construction equipment and on-road vehicle travel were distributed throughout the modeled area sources.

AERMOD Inputs and Meteorological Data

The modeling used a five-year meteorological data set (2013-2017) from the San José Airport prepared for use with the AERMOD model by the BAAQMD. Construction emissions were modeled as occurring during weekdays between 7:00 a.m. to 4:00 p.m. per the project applicant's construction schedule. Annual DPM and PM_{2.5} concentrations from construction activities during the 2024-2027 period were calculated using the model. DPM and PM_{2.5} concentrations were calculated at nearby sensitive receptor locations. 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 sensitive receptors in the residences near the site.

Summary of Construction Health Risk Impacts

The maximum increased cancer risks were calculated using the modeled TAC concentrations combined with the OEHHA guidance for age-sensitivity factors and exposure parameters as recommended by BAAQMD, as described in *Attachment 1*. Non-cancer health hazards and maximum PM_{2.5} concentrations were also calculated and identified. Age-sensitivity factors reflect the greater sensitivity of infants and small children to cancer causing TACs. Third trimester, infant, child, and adult exposures were assumed to occur at all residences during the entire construction period.

The maximum modeled annual PM_{2.5} concentration was calculated based on combined exhaust and fugitive concentrations. The maximum computed HI values was based on the ratio of the maximum DPM concentration modeled and the chronic inhalation DPM reference exposure level of 5 µg/m³.

The maximum modeled annual DPM and PM_{2.5} concentrations were identified at nearby sensitive receptors to find the MEI from construction activities. Results of this assessment indicated that the construction MEI for both cancer risk and PM_{2.5} occurred at the same location and was located on the first floor (1.5 meters) of an apartment building on Epic Way northwest of the project sites. The location of the MEI and nearby sensitive receptors are shown in Figure 1. Table 8 lists the health risks from construction at the location of the construction MEI. *Attachment 4* to this report includes the emission calculations used for the construction modeling and the cancer risk calculations.

Health Risks from Project Operation – Stationary Sources and Traffic

Operation of the project would have long-term emissions from mobile sources (i.e., traffic) and stationary sources (i.e., generators). While these emissions would not be as intensive at or near the site as construction activity, they would contribute to long-term effects to sensitive receptors.

Project Traffic

An analysis was conducted of the impacts of TACs and PM_{2.5} from local roadways increase in traffic due to the project. The project would generate 7,761 net daily trips.²⁴ A majority of these trips would be from light-duty, gasoline vehicles (i.e., passenger cars). To address the added health risks, the impact from this traffic was assessed using the CT-EMFAC 2017 emissions model, AERMOD dispersion model and cancer risk calculations following BAAQMD methodology described in *Attachment 1*. Figure 1 shows the modeled roadway segment.

Traffic Emissions

This analysis involved the development of DPM, organic TACs, and PM_{2.5} roadway emissions in the project area using the Caltrans version of the EMFAC2017 emission model, known as CT-EMFAC2017.²⁵ CT-EMFAC2017 provides emission factors for mobile source criteria pollutants and TACs, including DPM. Emission processes modeled include running exhaust for DPM, PM_{2.5} and total organic compounds (e.g., TOG), running evaporative losses for TOG, and tire and brake wear and fugitive road dust for PM_{2.5}. All PM_{2.5} emissions from all vehicles were used, rather than just the PM_{2.5} fraction from diesel powered vehicles, because all vehicle types (i.e., gasoline and diesel powered) produce PM_{2.5}. Additionally, PM_{2.5} emissions from vehicle tire and brake wear and from re-entrained roadway dust were included in these emissions. DPM emissions are projected to decrease in the future and are reflected in the CT-EMFAC2017 emissions data. Inputs to the model include region (Santa Clara County), type of road (major/collector), truck percentage for non-state highways in Santa Clara County (3.51 percent),²⁶ traffic mix assigned by CT-EMFAC2017 for the county, year of analysis (2028 – project operational year), and season (annual).

Project operation was assumed to begin in 2028. To calculate the increased cancer risk from increased traffic volumes due to the project traffic, the health risks were adjusted for exposure duration to account for the MEIs being exposed to construction for the four years (2024-2027) of the 30-year period, followed by exposure to roadway traffic for the following 26 years (2028-2053). In order to estimate TAC and PM_{2.5} emissions over the exposure period for calculating increased cancer risks to exiting residents from project traffic, the CT-EMFAC2017 model was used to develop vehicle emission factors for the year 2028. Year 2028 emissions were conservatively assumed as being representative of future conditions over the time period that

²⁴ Hexagon Transportation Consultants, Inc., *Seely Avenue Mixed-Use Development Draft Transportation Analysis*, May 3, 2022.

²⁵ Note that Caltrans has not yet updated their version of EMFAC to incorporate EMFAC2021 emission rates for traffic modeling studies.

²⁶ 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>

cancer risks are evaluated (26 years) from the project site traffic, since overall vehicle emissions, and in particular diesel truck emissions, will decrease in the future.

Traffic Dispersion Modeling Inputs

All project traffic emissions from on- and near-site travel were assumed to be along Seely Avenue. The project's trip generation provided by the traffic consultant of 7,761 net daily trips was used to assess project traffic impacts.²⁷ The average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,²⁸ which were then applied to the trip volumes to obtain estimated hourly traffic volumes and emissions for the roadways. For all hours of the day, the average speed of 25 mph on the roadway was assumed for all vehicles, 5 mph below the posted speed limit on Seely Avenue.

Dispersion Modeling

Operational traffic roadway travel emissions were modeled with the AERMOD model using a series volume sources along a line (line volume sources) to represent traffic emissions on the roadway segment where all of the project traffic would occur. Five years (2013-2017) of hourly meteorological data from the San José Airport prepared for use with the AERMOD model by the BAAQMD, were used for the modeling. TAC and PM_{2.5} concentrations for 2028 were calculated by the model at the same sensitive receptor locations with the same receptor heights of 5 feet (1.5 meters) and 15 feet (4.5 meters) to represent the breathing heights on the first and second floors of the nearby residences.

Figure 1 shows the project roadway segment modeled and receptor locations used in the modeling. Table 8 lists the project roadway risks and hazards at the locations of the residential cancer risk and PM_{2.5} MEIs. The emission rates and roadway calculations used in the project impact analysis are shown in *Attachment 4*.

Project Emergency Diesel Generator

As previously described, the project would include one emergency generator as part of a groundwater well located on Lot 3 in the southeast corner of the project site. The generator size has not been determined at this time. For modeling purposes, the Project was assumed to include a 500-kW standby emergency generator powered by a 670-HP diesel engine. The location of the modeled generator is shown in Figure 1.

Operation of the diesel generator would be a source of TAC emissions. The generator would be tested periodically and power the system in the event of a power failure. For modeling purposes, it was assumed that the generator would be operated for testing and maintenance purposes. CARB and BAAQMD requirements limit these engine operations to 50 hours each per year for testing and maintenance. During testing periods, the engine would typically be run for less than one hour. The engine would be required to meet CARB and EPA emission standards and consume

²⁷ Hexagon Transportation Consultants, Inc., *Seely Avenue Mixed-Use Development Draft Transportation Analysis*, May 3, 2022.

²⁸ The Burden output from EMFAC2007, a previous version of CARB's EMFAC model, was used for this since the current web-based version of EMFAC2021 does not include Burden type output with hour by hour traffic volume information.

commercially available California low-sulfur diesel fuel. Additionally, the generator would have to meet BAAQMD BACT requirements for IC Engine-Compression Ignition: Stationary Emergency, non-Agricultural, non-direct drive fire pump sources. The emissions from the operation of the generator were calculated using the CalEEMod model.

The diesel engine would be subject to CARB's Stationary Diesel Airborne Toxics Control Measure (ATCM) and require permits from the BAAQMD, since it will be equipped with an engine larger than 50-HP. BACT requirements would apply to the generator that would limit DPM emissions. As part of the BAAQMD permit requirements for toxics screening analysis, the engine emissions will have to meet Best Available Control Technology for Toxics (BACT) and pass the toxic risk screening level of less than ten in a million. The risk assessment would be prepared by BAAQMD. Depending on results, BAAQMD would set limits for DPM emissions (e.g., more restricted engine operation periods). Sources of air pollutant emissions complying with all applicable BAAQMD regulations generally will not be considered to have a significant air quality health risk impact.

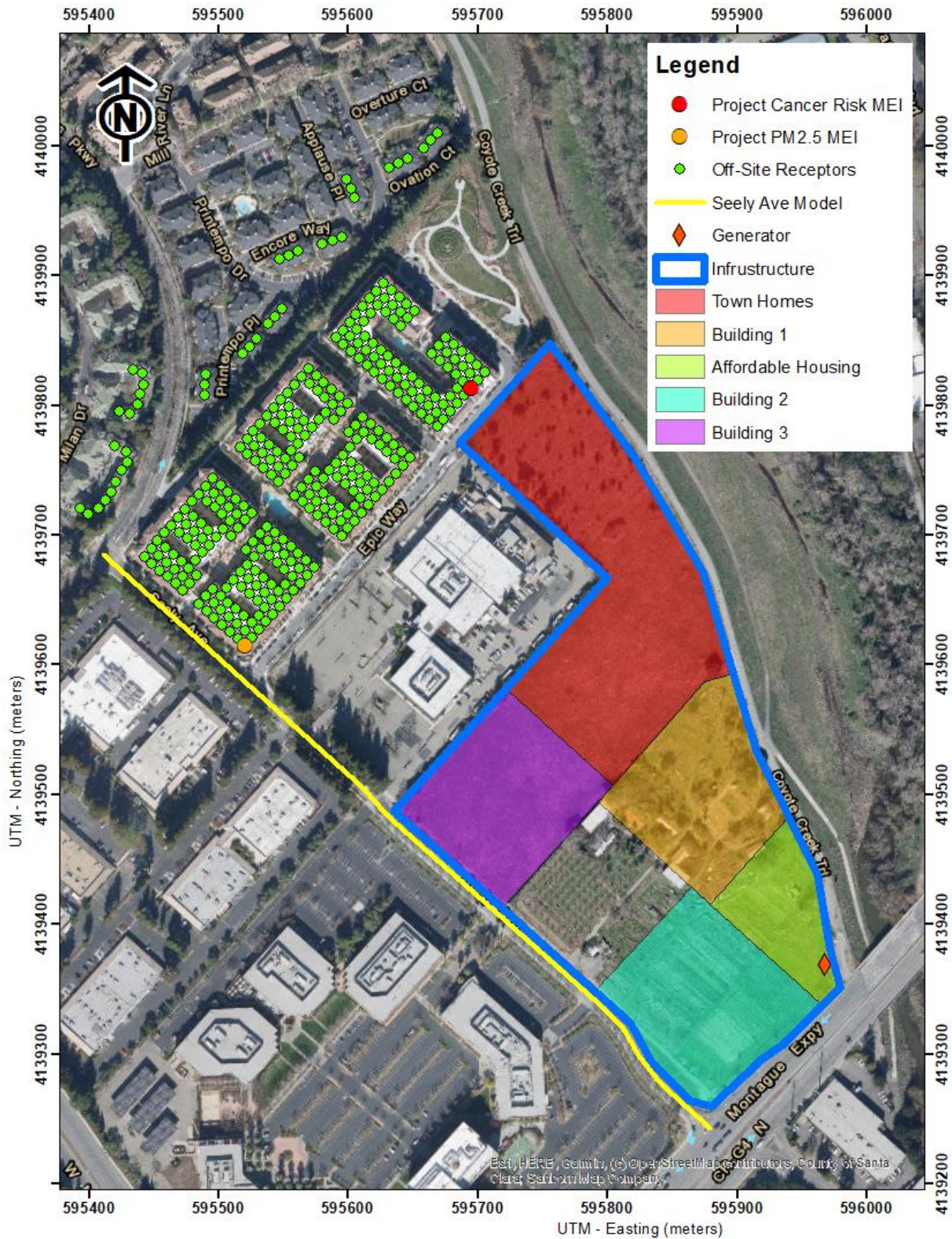
Dispersion Modeling

To estimate potential increased cancer risks and PM_{2.5} impacts from operation of the emergency generator, the same AERMOD dispersion model was used to compute the maximum annual DPM concentration at off-site sensitive receptors (i.e., nearby residences). Emissions of DPM were based on PM₁₀ exhaust emissions predicted by CalEEMod for operation of the project generator. The same receptors, breathing heights, and BAAQMD San José Airport meteorological data used in the construction dispersion modeling were used for the generator modeling. Stack parameters (stack height, exhaust flow rate, and exhaust gas temperature) for modeling the generator was based on BAAQMD default parameters for emergency generators.²⁹ Annual average DPM and PM_{2.5} concentrations were modeled assuming that generator testing could occur at any time of the day (24 hours per day, 365 days per year).

Table 8 shows the generator risks and hazards at the locations of the construction cancer risk and PM_{2.5} MEIs. The emission rates and generator calculations used in the project impact analysis are shown in *Attachment 4*.

²⁹ BAAQMD, Appendix E of the 2022 BAAQMD CEQA Guidelines, April 2023.

Figure 1. Locations of Project Construction Sites, Project Traffic Model, Project Generator, Off-Site Sensitive Receptors, and Maximum TAC Locations (MEIs)



Summary of Project-Related Health Risks at the Off-Site Project MEIs

The total risk impacts from a project are the combination of construction and operation sources. These sources include on-site construction activity and project operations from traffic and the emergency generator. The project cancer risk impact is computed by adding the construction cancer risk for an infant/child to the increased cancer risk for the project operational conditions for the project traffic and generator at the MEI over a 30-year period. The project cancer risk MEI is identified as the sensitive receptor that is most impacted by the project's construction and operation. The project annual PM_{2.5} concentration impact is computed as the total combined PM_{2.5} concentrations from construction and operation. The project PM_{2.5} concentration MEI is identified as the sensitive receptor that is most impacted by the project's construction and operation.

For this project, the sensitive receptors identified in Figure 1 as the cancer risk MEI is the project cancer risk MEI. At this location, the MEI would be exposed to emissions from 4 years of construction and 26 years of project operational (includes project traffic and generator). The project annual PM_{2.5} concentration was located at a different receptor than the construction MEI due to the larger annual PM_{2.5} concentration from project traffic along Seely Avenue. The project PM_{2.5} concentration MEI was location on the first floor (1.5 meters) of another apartment building at the corner of Seely Avenue and Epic Way, northwest of the project sites. The cancer risks from construction and operation of the project were summed together. Unlike, the increased maximum cancer risk, the annual PM_{2.5} concentration and HI impacts are not additive but based on maximum annual values for any year over the entirety of the project.

Project risk impacts are shown in Table 8. The unmitigated maximum cancer risks, annual PM_{2.5} concentration, and HI from construction and operation activities at the residential project MEI locations would not exceed the single-source significance thresholds. However, the project's cancer risk impact is just below to the threshold. With the implementation of *Mitigation Measure AQ-1 and AQ-3*, the project's cancer risk would be lowered to a level well below the single-source threshold. In addition, *Mitigation Measure AQ-1 and AQ-3* would be required to reduce the project's risk impacts to the future on-site project receptors, as discussed further in the report.

Table 8. Construction and Operation Risk Impacts – off-Site Receptors

Source	Cancer Risk** (per million)	Annual PM _{2.5} ** (µg/m ³)	Hazard Index	
<i>Residential Sensitive Receptor</i>				
Project Construction (Years 0-4)	Unmitigated	9.58 (infant)	0.04	<0.01
	Mitigated*	1.46 (infant)	<0.01	<0.01
Project Traffic, (Years 5-30)	0.03 (child)	0.14	<0.01	
Project Generator, (Years 5-30)	0.08 (child)	<0.01	<0.01	
Total/Maximum Project Impact (Years 0-30)	Unmitigated	9.69 (infant)	0.14	<0.01
	Mitigated*	1.57 (infant)	0.14	<0.01
<i>BAAQMD Single-Source Threshold</i>		<i>10</i>	<i>0.3</i>	<i>1.0</i>
<i>Exceed Threshold?</i>				
	Unmitigated	<i>No</i>	<i>No</i>	<i>No</i>
	Mitigated*	<i>No</i>	<i>No</i>	<i>No</i>

* Construction equipment with Tier 4 interim engines and BMPs as Mitigation Measures.

** Maximum cancer risk and maximum PM_{2.5} concentration occur at different receptors.

Cumulative Health Risks of all TAC Sources at the Off-Site Project MEI

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

A review of the project area based on provided traffic information indicated that traffic on Montague Expressway, River Oaks Parkway, and McCarthy Boulevard would exceed 10,000 vehicles per day. Other nearby streets would have less than 10,000 vehicles per day. A small section of McCarthy Boulevard is just within the influence area, but given that it is on the boundary with the majority of the roadway not within the influence area, McCarthy Boulevard was not included in the cumulative assessment. A review of BAAQMD's stationary source map website identified eight stationary sources with the potential to affect the project MEI. Figure 2 shows the location of the sources affecting the MEI. Health risk impacts from these sources upon the MEI are reported in Table 9. Details of the modeling and health risk calculations are included in *Attachment 5*.

Local Roadways – Montague Expressway and River Oaks Parkway

A refined analysis of potential health impacts from vehicle traffic on Montague Expressway and River Oaks Parkway was conducted since the roadway was estimated to have average daily traffic (ADT) exceeding 10,000 vehicles. The refined analysis involved predicting emissions for the traffic volume and mix of vehicle types on the roadway near the project site and using an atmospheric dispersion model to predict exposure to TACs. The associated cancer risks are then computed based on the modeled exposures. *Attachment 1* includes a description of how health risk impacts, including cancer risk are computed.

Emission Rates

This analysis involved the development of DPM, organic TACs, and PM_{2.5} emissions for traffic on the roadways using the Caltrans version of the EMFAC2017 emissions model, known as CT-EMFAC2017. CT-EMFAC2017 provides emission factors for mobile source criteria pollutants and TACs, including DPM. Emission processes modeled include running exhaust for DPM, PM_{2.5} and total organic compounds (e.g., TOG), running evaporative losses for TOG, and tire and brake wear and fugitive road dust for PM_{2.5}. All PM_{2.5} emissions from all vehicles were used, rather than just the PM_{2.5} fraction from diesel powered vehicles, because all vehicle types (i.e., gasoline and diesel powered) produce PM_{2.5}. Additionally, PM_{2.5} emissions from vehicle tire and brake wear and from re-entrained roadway dust were included. DPM emissions are projected to decrease in the future and are reflected in the CT-EMFAC2017 emissions data. Inputs to the model include region (i.e., Santa Clara County), type of road (i.e., major/collector), truck percentage for non-state highways in Santa Clara County (3.51 percent),³⁰ traffic mix assigned by CT-EMFAC2017 for the county, year of analysis (2024 – construction start year), and season (annual).

³⁰ BAAQMD, 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>

In order to estimate TAC and PM_{2.5} emissions over the 30-year exposure period used for calculating the increased cancer risks for sensitive receptors at the project MEIs, the CT-EMFAC2017 model was used to develop vehicle emission factors for the year 2024 (project construction year). Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CT-EMFAC2017. Year 2024 emissions were conservatively assumed as being representative of future conditions over the time period that cancer risks are evaluated since, as discussed above, overall vehicle emissions, and in particular diesel truck emissions, will decrease in the future.

The ADT for Montague Expressway and River Oaks Parkway were based on AM and PM peak-hour background traffic volumes for the nearby roadway provided by the project's traffic data.³¹ The calculated ADT on Montague Expressway would be 62,500 and on River Oaks Parkway the ADT would be 11,940. Average hourly traffic distributions for Santa Clara County roadways were developed using the EMFAC model,³² which were then applied to the ADT volumes to obtain estimated hourly traffic volumes and emissions for the roadway. For all hours of the day average speeds of 40 mph on Montague Expressway and 30 mph on River Oaks Parkway were assumed for all vehicles, 5 mph below the posted speed limits of the roadways.

Dispersion Modeling

Dispersion modeling of TAC and PM_{2.5} emissions was conducted using the EPA AERMOD air quality dispersion model, which is recommended by the BAAQMD for this type of analysis.³³ TAC and PM_{2.5} emissions from traffic on Montague Expressway and River Oaks Parkway within 1,000 feet of the project site were evaluated. Vehicle traffic on the roadways was modeled using a series of volume sources along a line (line volume sources); with line segments used for opposing travel directions on each roadway. The same meteorological data and off-site sensitive receptor MEI locations from the previous project impact dispersion modeling were used in the roadway modeling. Other inputs to the model included road geometry, hourly traffic emissions, and receptor locations. Annual TAC and PM_{2.5} concentrations for 2024 from traffic on the roadways were calculated using the model. Concentrations were calculated at the project MEIs with receptor heights of 5 feet (1.5 meters) to represent the breathing heights at the MEI receptors.

Computed Cancer and Non-Cancer Health Impacts

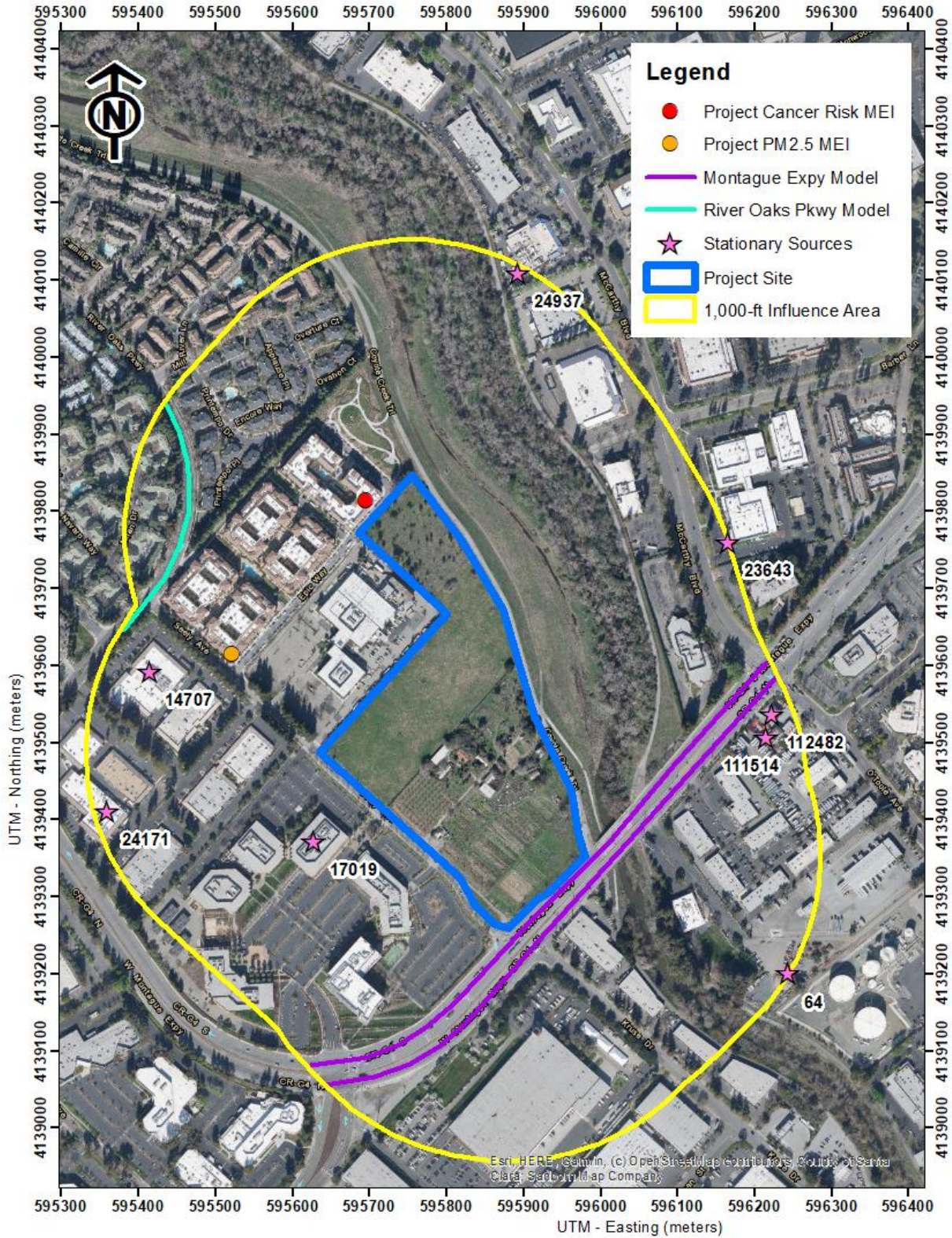
The cancer risk, PM_{2.5} concentration, and HI impacts from Montague Expressway and River Oaks Parkway on the project MEIs are shown in Table 9. Figure 2 shows the roadway links used for the modeling and receptor locations where concentrations were calculated. Details of the emission calculations, dispersion modeling, and cancer risk calculations for the receptors with the maximum cancer risk from Montague Expressway and River Oaks Parkway traffic are provided in *Attachment 5*.

³¹ Hexagon Transportation Consultants, Inc., *Seely Avenue Mixed-Use Development Draft Transportation Analysis*, May 3, 2022.

³² The Burden output from EMFAC2007, a previous version of CARB's EMFAC model, was used for this since the current web-based version of EMFAC2014 does not include Burden type output with hour by hour traffic volume information.

³³ BAAQMD. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May 2012

Figure 2. Project Site and Nearby TAC and PM_{2.5} Sources



Stationary Sources

Permitted stationary sources of air pollution near the project site were identified using BAAQMD's *Permitted Stationary Sources 2018 GIS* website,³⁴ which identifies the location of nearby stationary sources and their estimated risk and hazard impacts, including emissions and adjustments to account for new OEHHA guidance. Eight sources were identified using this tool with five sources being diesel generators, two sources being gas dispensing facilities, and one being a petroleum station. A Stationary Source Information Form (SSIF) containing the identified sources was prepared and submitted to BAAQMD. BAAQMD provided updated emissions data and risk values.³⁵

The screening level risks and hazards provided by BAAQMD for the stationary sources were adjusted for distance using BAAQMD's *Distance Adjustment Multiplier Tool for Diesel Internal Combustion Engines, Gasoline Dispensing Facility, and Generic Equipment*. Health risk impacts from the stationary sources upon the MEIs are reported in Table 9.

Summary of Cumulative Risks at the Project MEIs

Table 9 reports both the project and cumulative health risk impacts at the sensitive receptors most affected by project construction and operation (i.e., the project MEIs). The project would not have an exceedance with respect to health risk caused by project construction and operation activities, since the unmitigated maximum cancer risk, annual PM_{2.5} concentration, and HI do not exceed the BAAQMD single-source thresholds. However, the project's cancer risk impact is just below to the threshold. With the implementation of *Mitigation Measure AQ-1 and AQ-3*, the project's cancer risk would be lowered to a level well below the single-source threshold. In addition, *Mitigation Measure AQ-1 and AQ-3* would be required to reduce the project's risk impacts to the future on-site project receptors, as discussed further in the report. The combined cancer risk, annual PM_{2.5} concentration, and HI would not exceed the cumulative thresholds.

³⁴ BAAQMD, <https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65>

³⁵ Correspondence with Matthew Hanson, Environmental Planner II, BAAQMD, December 16, 2021.

Table 9. Cumulative Health Risk Impacts at the Location of the Project MEIs

Source		Cancer Risk* (per million)	Annual PM _{2.5} * (µg/m ³)	Hazard Index
Project Impacts				
Total/Maximum Project Impacts	Unmitigated	9.69 (infant)	0.14	<0.01
	Mitigated	1.57 (infant)	0.14	<0.01
BAAQMD Single-Source Threshold		10	0.3	1.0
<i>Exceed Threshold?</i>	Unmitigated	<i>No</i>	<i>No</i>	<i>No</i>
	Mitigated	<i>No</i>	<i>No</i>	<i>No</i>
Cumulative Sources				
Montague Expressway, ADT 62,560		0.46	0.03	<0.01
River Oaks Parkway, ADT 11,940		0.15	0.16	<0.01
Equilon Enterprises LLC-San Jose Terminal (Facility ID #64, Petroleum Station), MEIs at +1,000/+1,000 feet.		1.15	-	0.01
Verizon Business - SQZPCA (Facility ID #14707, Generators), MEIs at +1,000/190 feet.		2.77	0.02	<0.01
Cadence Design Systems, Inc (Facility ID #17019, Generators), MEIs at +1,000/750 feet.		0.90	<0.01	<0.01
Cordis/Cardinal Health (Facility ID #23643, Generators), MEIs at +1,000/+1,000 feet.		0.06	-	-
Eugenus, Inc (Facility ID #24171, Generators), MEIs at +1,000/775 feet.		0.05	<0.01	<0.01
Measurement Specialties, Inc. (Facility ID #24937, Generators), MEIs at +1,000/+1,000 feet.		0.03	<0.01	<0.01
Montague Car Wash (Facility +1,000/+1,000 feet.		0.46	-	<0.01
Propel Fuels Inc. (Facility ID #112482, Gas Dispensing Facility), MEIs at +1,000/+1,000 feet.		0.02	-	<0.01
<i>Combined Sources</i>	Unmitigated	15.74	<0.38	<0.10
	Mitigated	7.62	<0.38	<0.10
BAAQMD Cumulative Source Threshold		100	0.8	10.0
<i>Exceed Threshold?</i>	Unmitigated	<i>No</i>	<i>No</i>	<i>No</i>
	Mitigated	<i>No</i>	<i>No</i>	<i>No</i>

* Maximum cancer risk and maximum PM_{2.5} concentration occur at different receptors.

Non-CEQA: On-Site Health Risk Assessment for TAC Sources - New Project Residences

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 required when new residential are proposed near existing sources of TACs. 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 impact from project construction, a health risk assessment was completed to assess the impact that the phased construction emissions from the proposed project and 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.³⁶ Figure 3 shows the on-site sensitive receptors in relation to the project's phased construction and nearby TAC sources. All on-site health risk results are listed in Table 10. *Attachment 5* includes the dispersion modeling and risk calculations for TAC source impacts upon the proposed on-site sensitive receptors.

Project Phased Construction

Project residents could occupy a building once it has completed construction. Therefore, it was assumed that Building 1 and the Affordable Housing building would have sensitive receptors during the construction of the Town Homes and Buildings 2 and 3, and Building 2 would be occupied while Building 3 is being constructed. The construction analysis for the project residents was conducted in the same manner as described above for the off-site cancer risk and PM_{2.5} MEIs. Receptors were placed within each affected residential area and were spaced every 26 feet (8 meters). Project impacts were modeled at receptor heights used to represent the first and second residential levels of the respective buildings. 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 residential areas for 24 hours per day for 350 days per year. Maximum construction impacts would occur at the first-floor level of Building 1, with the on-site cancer risk and PM_{2.5} MEIs at different receptor locations, as shown in Figure 3. The project construction health risk impacts at the project sites are shown in Table 10. Details of the on-site construction emission calculations, dispersion modeling, and cancer risk calculations are contained in *Attachment 5*.

Project Generator

Project residents would occupy the buildings once construction is completed. The generator supporting the groundwater would be intermittently operational and have localized impacts to the Project. The generator analysis for the project residents was conducted in the same manner as described above for the off-site MEIs. On-site receptors were placed within each affected

³⁶ 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.

residential area and were spaced every 26 feet (8 meters). Project impacts were modeled at receptor heights used to represent the first through third residential levels of the respective buildings. Maximum increased cancer risks were calculated in the same manner as described above for the on-site MEIs. Generator health risk impacts at the on-site construction MEIs are shown in Table 10. Details of the on-site generator emission calculations, dispersion modeling, and cancer risk calculations are contained in *Attachment 5*.

The maximum generator impacts on the project site occurred at a different location from the maximum on-site construction impact locations. The maximum risk occurred on the third residential level (13.0 meters) at the southern-most receptor in the affordable housing area closest to the generator, as shown in Figure 3. The maximum cancer risk impact from the generator at this location was 15.18 per million, the annual PM_{2.5} concentration was 0.02 µg/m³, and the HI was less than 0.01. The generator cancer risk impact exceeds the single-source significant threshold.

Impacts associated with the generator operation are based on assumptions that include the largest possible generator. A smaller size generator (in terms of kW or HP) would have lower impacts. For example, a 300-kW generator would result in less-than-significant cancer risks (i.e., cancer risk of 9 per million).

Local Roadways – Montague Expressway and River Oaks Parkway

The roadway analysis for the project residents was conducted in the same manner as described above for the off-site MEIs. Year 2024 emission factors were conservatively assumed as being representative of future conditions during project construction. Roadway ADTs of 62,560 and 11,940 were used for Montague Expressway and River Oaks Parkway, respectively. The portions of Montague Expressway and River Oaks Parkway included in the modeling are shown in Figure 3. Traffic impacts from these roadways were calculated at the on-site construction cancer risk and PM_{2.5} MEIs. The roadway health risk impacts at the project sites are shown in Table 10. Details of the emission calculations, dispersion modeling, and cancer risk calculations are contained in *Attachment 5*.

Stationary Sources

The stationary source screening analysis for the new project sensitive receptors was conducted in the same manner as described above for the project MEIs. Table 10 shows the health risk assessment results from the stationary sources.

Summary of Cumulative Health Risks at the Project Site

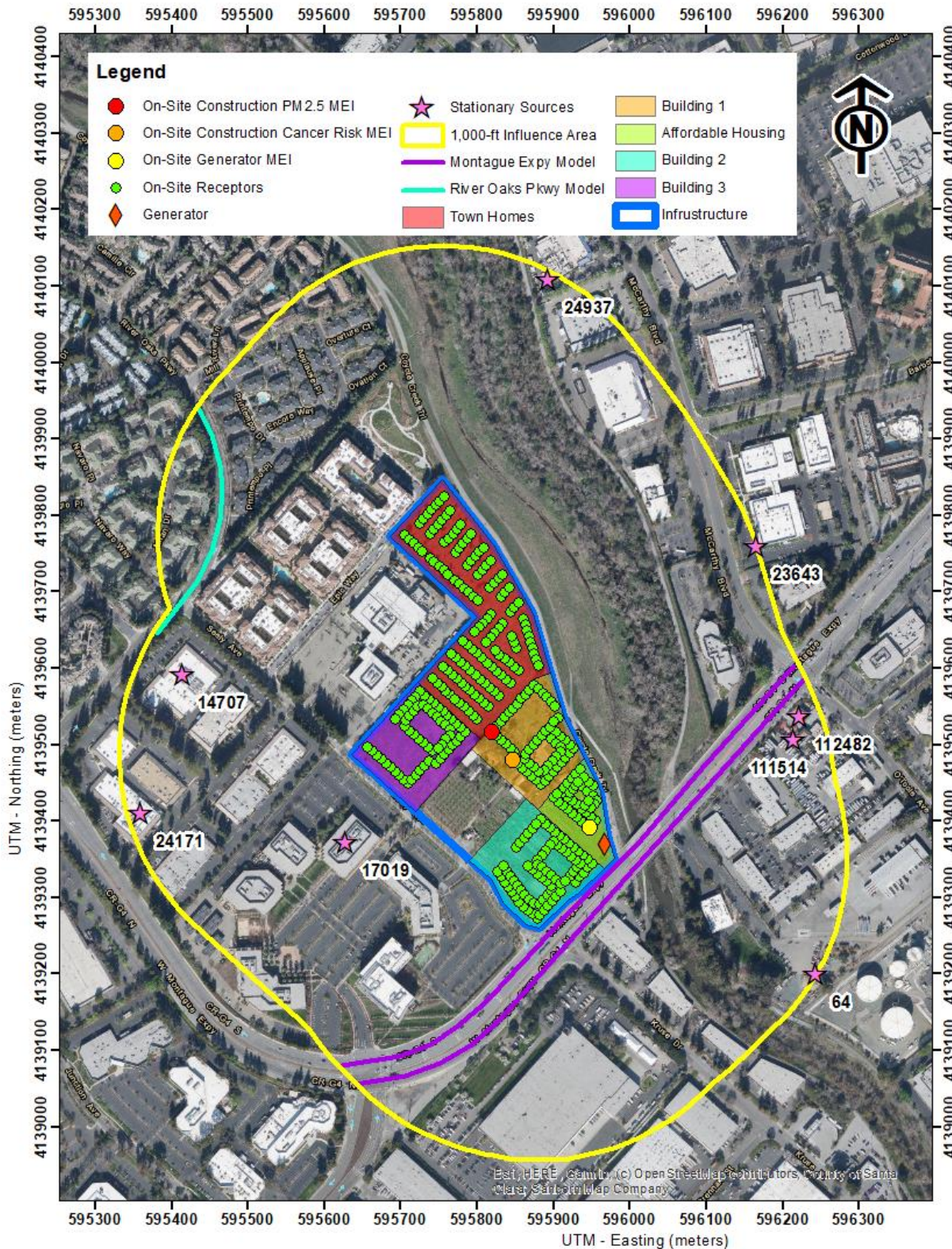
Health risk impacts from both project construction scenarios and existing TAC sources upon the project sites are reported in Table 10. The risks from the singular TAC sources are compared against the BAAQMD single-source threshold. The risks from all the sources are then combined and compared against the BAAQMD cumulative-source threshold. As shown, the project construction sources' unmitigated cancer risk impacts exceed the single-source thresholds, but not the cumulative-source thresholds. Implementation of *Mitigation Measures AQ-1 and AQ-3* would

reduce cancer risks below the single-source thresholds. The annual PM_{2.5} concentration and HI from the project's unmitigated and mitigated impacts, as well as the impacts from the other nearby sources do not exceed the single-source thresholds. The combined maximum cancer risk, annual PM_{2.5} concentrations, and HI from all sources would not exceed the cumulative thresholds.

Table 10. Cumulative Health Risk Impacts Upon the On-Site Sensitive Receptors

Source		Cancer Risk (per million)	Annual PM _{2.5} (µg/m ³)	Hazard Index
Project Sources				
Project Construction Impacts	Unmitigated	21.34	0.08	0.01
	Mitigated	4.08	0.03	<0.01
Project Generator Impacts at On-Site MEI		0.48	<0.01	<0.01
Total/Maximum Project Impact	Unmitigated	21.82	0.08	0.01
	Mitigated	4.56	0.03	<0.01
Cumulative Sources				
Montague Expressway, ADT 62,560		0.65	0.08	<0.01
River Oaks Parkway, ADT 11,940		0.04	0.04	<0.01
Equilon Enterprises LLC-San Jose Terminal (Facility ID #64, Petroleum Station), Project Site at +1,000 feet.		1.15	-	0.01
Verizon Business - SQZPCA (Facility ID #14707, Generators), Project Site at 660 feet.		5.54	<0.01	0.01
Cadence Design Systems, Inc (Facility ID #17019, Generators), Project Site at 200 feet.		9.26	0.01	0.03
Cordis/Cardinal Health (Facility ID #23643, Generators), Project Site at +1,000 feet.		0.06	-	-
Eugenus, Inc (Facility ID #24171, Generators), Project Site at 870 feet.		0.06	<0.01	<0.01
Measurement Specialties, Inc. (Facility ID #24937, Generators), Project Site at 960 feet.		0.03	<0.01	<0.01
Montague Car Wash (Facility ID #111514, Gas Dispensing Facility), Project Site at 820 feet.		0.62	-	<0.01
Propel Fuels Inc. (Facility ID #112482, Gas Dispensing Facility), Project Site at 860 feet.		0.03	-	<0.01
BAAQMD Single-Source Threshold		10	0.3	1.0
Exceed Threshold?	Unmitigated	Yes	No	No
	Mitigated	No	No	No
Combined Sources	Unmitigated	39.26	<0.24	<0.12
	Mitigated	22.00	<0.19	<0.12
BAAQMD Cumulative Source Threshold		100	0.8	10.0
Exceed Threshold?	Unmitigated	No	No	No
	Mitigated	No	No	No

Figure 3. Locations of Project Site, On-Site Residential Receptors, Project Generator, Roadway Segments Evaluated, Nearby TAC and PM_{2.5} Sources, and Maximum TAC Impacts



Mitigation Measure AQ-3: Use construction equipment that has low diesel particulate matter exhaust emissions.

Implement a feasible plan to reduce DPM emissions by 60 percent such that increased cancer risk from construction would be reduced below TAC significance level as follows:

1. All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards for PM (PM₁₀ and PM_{2.5}), if feasible, otherwise,
 - a. If use of Tier 4 equipment is not available, alternatively use equipment that meets U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve a 60 percent reduction in particulate matter exhaust in comparison to uncontrolled equipment; alternatively (or in combination).
 - b. Use of electrical or non-diesel fueled equipment.
2. Alternatively, the applicant may develop another construction operations plan demonstrating that the construction equipment used on-site would achieve a reduction in construction diesel particulate matter emissions by 60 percent or greater. Elements of the plan could include a combination of some of the following measures:
 - Implementation of No. 1 above to use Tier 4 or alternatively fueled equipment,
 - Installation of electric power lines during early construction phases to avoid use of diesel generators and compressors,
 - Use of electrically-powered equipment,
 - Forklifts and aerial lifts used for exterior and interior building construction shall be electric or propane/natural gas powered,
 - Change in construction build-out plans to lengthen phases, and
 - Implementation of different building techniques that result in less diesel equipment usage.

Such a construction operations plan would be subject to review by an air quality expert and approved by the City prior to construction.

Effectiveness of Mitigation Measure AQ-1 and AQ-3

CalEEMod was used to compute emissions associated with this mitigation measure assuming that all equipment met U.S. EPA Tier 4 Interim engines standards were used along with BAAQMD best management practices for construction were included. With these implemented, the project's construction cancer risk levels (assuming infant exposure) would be reduced by 81 percent to 4.08 chances per million and the total project impact reduced to 4.56 per million, and would no longer exceed the single-source threshold.

Mitigation Measure AQ-4: Use an emergency generator that has low diesel particulate matter exhaust emissions.

Modeling of an assumed 500-kW groundwater well stand-by emergency generator showed that the maximum cancer risk impact was above the threshold of 10 per million at the affordable housing units. To avoid this impact, there are two options:

1. Use a generator that is 300 kw or less, or
2. Add controls to the generator such that it meets U.S. EPA Tier 4 standards for particulate matter emissions or is equipped with a CARB certified Level 3 diesel particulate filter that achieves 85% reduction in particulates.

Either of these options would reduce the cancer impact at the affordable housing units to below the single-source significant threshold.

Supporting Documentation

Attachment 1 is the methodology used to compute health risk impacts, including the methods to compute increased cancer risk from exposure to project emissions.

Attachment 2 includes the CalEEMod output for project construction and operational criteria air pollutant. Also included are any modeling assumptions.

Attachment 3 includes the EMFAC2021 emissions modeling. The input files for these calculations are voluminous and are available upon request in digital format.

Attachment 4 is the health risk assessment. This includes the summary of the dispersion modeling and the cancer risk calculations for construction and operation. The AERMOD dispersion modeling files for this assessment, which are quite voluminous, are available upon request and would be provided in digital format.

Attachment 5 includes the cumulative health risk calculations, modeling results, and health risk calculations from sources affecting the construction MEIs and project receptors.

Attachment 1: Health Risk Calculation Methodology

Health Risk Calculation Methodology

A health risk assessment (HRA) for exposure to Toxic Air Contaminates (TACs) requires the application of a risk characterization model to the results from the air dispersion model to estimate potential health risk at each sensitive receptor location. The State of California Office of Environmental Health Hazard Assessment (OEHHA) and California Air Resources Board (CARB) develop recommended methods for conducting health risk assessments. The most recent OEHHA risk assessment guidelines were published in February of 2015.³⁷ These guidelines incorporate substantial changes designed to provide for enhanced protection of children, as required by State law, compared to previous published risk assessment guidelines. CARB has provided additional guidance on implementing OEHHA's recommended methods.³⁸ This HRA used the 2015 OEHHA risk assessment guidelines and CARB guidance. The BAAQMD has adopted recommended procedures for applying the newest OEHHA guidelines as part of Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants.³⁹ Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in this evaluation.

Cancer Risk

Potential increased cancer risk from inhalation of TACs is calculated based on the TAC concentration over the period of exposure, inhalation dose, the TAC cancer potency factor, and an age sensitivity factor to reflect the greater sensitivity of infants and children to cancer causing TACs. The inhalation dose depends on a person's breathing rate, exposure time and frequency and duration of exposure. These parameters vary depending on the age, or age range, of the persons being exposed and whether the exposure is considered to occur at a residential location or other sensitive receptor location.

The current OEHHA guidance recommends that cancer risk be calculated by age groups to account for different breathing rates and sensitivity to TACs. Specifically, they recommend evaluating risks for the third trimester of pregnancy to age zero, ages zero to less than two (infant exposure), ages two to less than 16 (child exposure), and ages 16 to 70 (adult exposure). Age sensitivity factors (ASFs) associated with the different types of exposure are an ASF of 10 for the third trimester and infant exposures, an ASF of 3 for a child exposure, and an ASF of 1 for an adult exposure. Also associated with each exposure type are different breathing rates, expressed as liters per kilogram of body weight per day (L/kg-day) or liters per kilogram of body weight per 8-hour period for the case of worker or school child exposures. As recommended by the BAAQMD for residential exposures, 95th percentile breathing rates are used for the third trimester and infant exposures, and 80th percentile breathing rates for child and adult exposures. For children at schools and daycare facilities, BAAQMD recommends using the 95th percentile 8-hour breathing rates.

³⁷ 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.

³⁸ CARB, 2015. *Risk Management Guidance for Stationary Sources of Air Toxics*. July 23.

³⁹ BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. December 2016.

Additionally, CARB and the BAAQMD recommend the use of a residential exposure duration of 30 years for sources with long-term emissions (e.g., roadways). For workers, assumed to be adults, a 25-year exposure period is recommended by the BAAQMD. For school children a 9-year exposure period is recommended by the BAAQMD.

Under previous OEHHA and BAAQMD HRA guidance, residential receptors are assumed to be at their home 24 hours a day, or 100 percent of the time. In the 2015 Risk Assessment Guidance, OEHHA includes adjustments to exposure duration to account for the fraction of time at home (FAH), which can be less than 100 percent of the time, based on updated population and activity statistics. The FAH factors are age-specific and are: 0.85 for third trimester of pregnancy to less than 2 years old, 0.72 for ages 2 to less than 16 years, and 0.73 for ages 16 to 70 years. Use of the FAH factors is allowed by the BAAQMD if there are no schools in the project vicinity have a cancer risk of one in a million or greater assuming 100 percent exposure (FAH = 1.0).

Functionally, cancer risk is calculated using the following parameters and formulas:

$$\text{Cancer Risk (per million)} = CPF \times \text{Inhalation Dose} \times ASF \times ED/AT \times FAH \times 10^6$$

Where:

CPF = Cancer potency factor (mg/kg-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)

$$\text{Inhalation Dose} = C_{\text{air}} \times DBR^* \times A \times (EF/365) \times 10^{-6}$$

Where:

C_{air} = concentration in air (µg/m³)

DBR = daily breathing rate (L/kg body weight-day)

8HrBR = 8-hour breathing rate (L/kg body weight-8 hours)

A = Inhalation absorption factor

EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

* An 8-hour breathing rate (8HrBR) is used for worker and school child exposures.

The health risk parameters used in this evaluation are summarized as follows:

Parameter	Exposure Type →	Infant		Child	Adult
	Age Range →	3 rd Trimester	0<2	2 < 16	16 - 30
DPM Cancer Potency Factor (mg/kg-day) ⁻¹		1.10E+00	1.10E+00	1.10E+00	1.10E+00
Daily Breathing Rate (L/kg-day) 80 th Percentile Rate		273	758	572	261
Daily Breathing Rate (L/kg-day) 95 th Percentile Rate		361	1,090	745	335
8-hour Breathing Rate (L/kg-8 hours) 95 th Percentile Rate		-	1,200	520	240
Inhalation Absorption Factor		1	1	1	1
Averaging Time (years)		70	70	70	70
Exposure Duration (years)		0.25	2	14	14*
Exposure Frequency (days/year)		350	350	350	350*
Age Sensitivity Factor		10	10	3	1
Fraction of Time at Home (FAH)		0.85-1.0	0.85-1.0	0.72-1.0	0.73*

* For worker exposures (adult) the exposure duration and frequency are 25 years 250 days/year and FAH is not applicable.

Non-Cancer Hazards

Non-cancer health risk is usually determined by comparing the predicted level of exposure to a chemical to the level of exposure that is not expected to cause any adverse effects (reference exposure level), even to the most susceptible people. Potential non-cancer health hazards from TAC exposure are expressed in terms of a hazard index (HI), which is the ratio of the TAC concentration to a reference exposure level (REL). OEHHA has defined acceptable concentration levels for contaminants that pose non-cancer health hazards. TAC concentrations below the REL are not expected to cause adverse health impacts, even for sensitive individuals. The total HI is calculated as the sum of the HIs for each TAC evaluated and the total HI is compared to the BAAQMD significance thresholds to determine whether a significant non-cancer health impact from a project would occur.

Typically, for residential projects located near roadways with substantial TAC emissions, the primary TAC of concern with non-cancer health effects is diesel particulate matter (DPM). For DPM, the chronic inhalation REL is 5 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Annual PM_{2.5} Concentrations

While not a TAC, fine particulate matter (PM_{2.5}) has been identified by the BAAQMD as a pollutant with potential non-cancer health effects that should be included when evaluating potential health impacts under the California Environmental Quality Act (CEQA). The thresholds of significance for PM_{2.5} (project level and cumulative) are in terms of an increase in the annual average concentration. When considering PM_{2.5} impacts, the contribution from all sources of PM_{2.5} emissions should be included. For projects with potential impacts from nearby local roadways, the PM_{2.5} impacts should include those from vehicle exhaust emissions, PM_{2.5} generated from vehicle tire and brake wear, and fugitive emissions from re-suspended dust on the roads.

Attachment 2: CalEEMod Input Assumptions and Outputs

Air Quality/Noise Construction Information Data Request

Project Name: 681 E. Trimble Mixed-Use - INFRASTRUCTURE 1	Complete ALL Portions in Yellow						
See Equipment Type TAB for type, horsepower and load factor							
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Project Size</td> <td style="width: 40%;"> Dwelling Units _____ 22 total project acres disturbed s.f. residential _____ s.f. retail _____ s.f. office/commercial _____ s.f. other, specify: _____ s.f. parking garage _____ spaces s.f. parking lot _____ spaces </td> <td style="width: 40%;"></td> </tr> <tr> <td>Construction Hours</td> <td>am to _____ pm</td> <td></td> </tr> </table>	Project Size	Dwelling Units _____ 22 total project acres disturbed s.f. residential _____ s.f. retail _____ s.f. office/commercial _____ s.f. other, specify: _____ s.f. parking garage _____ spaces s.f. parking lot _____ spaces		Construction Hours	am to _____ pm		Pile Driving? N Project include on-site GENERATOR OR FIRE PUMP during project OPERATION? N IF YES (if BOTH separate values) --> Kilowatts/Horsepower: _____ Fuel Type: _____ Location in project (Plans Desired if Available): _____
Project Size	Dwelling Units _____ 22 total project acres disturbed s.f. residential _____ s.f. retail _____ s.f. office/commercial _____ s.f. other, specify: _____ s.f. parking garage _____ spaces s.f. parking lot _____ spaces						
Construction Hours	am to _____ pm						

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	Start Date: 2/1/2024 End Date: 2/22/2024		Total phase:	15			Overall Import/Export Volumes
	Concrete/Industrial Saws	81	0.73			0	0	Demolition Volume
1	Excavators	158	0.38	8	4	2.1	1921	Square footage of buildings to be demolished
1	Rubber-Tired Dozers	247	0.4	8	4	2.1	3162	(or total tons to be hauled)
1	Tractors/Loaders/Backhoes	97	0.37	8	4	2.1	1148	8,000 square feet or
	Other Equipment?							Hauling volume (tons)
								Any pavement demolished and hauled? 350 tons
	Site Preparation	Start Date: 2/1/2024 End Date: 5/1/2024		Total phase:	64			Soil Hauling Volume
3	Graders	187	0.41	8	64	8.0	117765	Export volume = 23,000 cubic yards
4	Scrapers	367	0.48	8	21	2.6	118380	Import volume = 1,000 cubic yards
	Rubber Tired Dozers	247	0.4			-	0	
3	Tractors/Loaders/Backhoes	97	0.37	8	45	5.6	38761	
3	Off-Highway Trucks	402	0.38	8	45	5.6	164981	
	Other Equipment?						0	
	Trenching/Underground Utilities	Start Date: 4/1/2024 End Date: 7/1/2024		Total phase:	65			
2	Tractor/Loader/Backhoe	97	0.37	6	65	6.0	27994	
	Excavators	158	0.38			0.00	0	
	Other Equipment?							
	Building - Exterior	Start Date: _____ End Date: _____		Total phase:	0			Cement Trucks? 0 Total Round-Trips
	Cranes	231	0.29			#DIV/0!	0	Electric? Y (Otherwise assumed diesel)
	Forklifts	89	0.2			#DIV/0!	0	Liquid Propane (LPG)? N (Otherwise Assumed diesel)
	Generator Sets	84	0.74			#DIV/0!	0	Or temporary line power? Y
	Tractors/Loaders/Backhoes	97	0.37			#DIV/0!	0	
	Welders	46	0.45			#DIV/0!	0	
	Other Equipment?							
	Building - Interior/Architectural Coating	Start Date: _____ End Date: _____		Total phase:	0			
	Air Compressors	78	0.48			#DIV/0!	0	
	Aerial Lift	62	0.31			#DIV/0!	0	
	Other Equipment?							
	Paving	Start Date: 7/1/2024 End Date: 10/1/2024		Total phase:	66			
	Cement and Mortar Mixers	9	0.56	0	0	0	0	
1	Pavers	130	0.42	8	20	2.4	8736	Asphalt? 6,500 cubic yards
1	Paving Equipment	132	0.36	8	20	2.4	7603	
1	Rollers	80	0.38	8	20	2.4	4864	
1	Tractors/Loaders/Backhoes	97	0.37	8	20	2.4	5742	
	Other Equipment?							
	Additional Phases	Start Date: _____ Start Date: _____		Total phase:				
						#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

Air Quality/Noise Construction Information Data Request

Project Name: **681 E. Trimble Mixed-Use - BUILDING 1** **Complete ALL Portions in Yellow**

See Equipment Type TAB for type, horsepower and load factor

Project Size	380 Dwelling Units	2.12 total project acres disturbed	
	405,463 s.f. residential		
	5,431 s.f. retail		
	- s.f. office/commercial		
	- s.f. other, specify:		
	177,758 s.f. parking garage	559 spaces	
	- s.f. parking lot	- spaces	
Construction Hours	am to	pm	

Pile Driving? N

Project include on-site GENERATOR OR FIRE PUMP during project OPERATION? N

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		Start Date:		Total phase:	0			Overall Import/Export Volumes
		End Date:						
	Concrete/Industrial Saws	81	0.73			#DIV/0!	0	Demolition Volume
	Excavators	158	0.38			#DIV/0!	0	Square footage of buildings to be demolished
	Rubber-Tired Dozers	247	0.4			#DIV/0!	0	(or total tons to be hauled)
	Tractors/Loaders/Backhoes	97	0.37			#DIV/0!	0	0 square feet or
	Other Equipment?							Hauling volume (tons)
								Any pavement demolished and hauled? <u>0 tons</u>
Site Preparation		Start Date:	4/1/2024	Total phase:	21			
		End Date:	5/1/2024					
1	Graders	187	0.41	8	4	1.5	2453	
	Rubber Tired Dozers	247	0.4			-	0	
1	Tractors/Loaders/Backhoes	97	0.37	8	4	1.5	1148	
2	Bore / Drill Rig	221	0.5	8	21	8.0	37128	
	Other Equipment?						0	
Shoring / Excavation		Start Date:		Total phase:	0			Soil Hauling Volume
		End Date:						Export volume = <u>0</u> cubic yards
	Excavators	158	0.38			#DIV/0!	0	Import volume = <u>0</u> cubic yards
	Graders	187	0.41			#DIV/0!	0	
	Rubber Tired Dozers	247	0.4			#DIV/0!	0	
	Concrete/Industrial Saws	81	0.73			#DIV/0!	0	
	Tractors/Loaders/Backhoes	97	0.37			#DIV/0!	0	
	Bore / Drill Rig (tiebacks)	221	0.5			#DIV/0!	0	
Trenching/Foundation		Start Date:	5/1/2024	Total phase:	21			
		End Date:	5/31/2024					
2	Tractor/Loader/Backhoe	97	0.37	8	18	6.7	10336	
1	Excavators	158	0.38	8	5	1.9	2402	
	Other Equipment?							
Building - Exterior		Start Date:	5/31/2024	Total phase:	282			Cement Trucks? 1,300 Total Round-Trips
		End Date:	6/30/2025					
1	Cranes	231	0.29	8	250	7.1	133980	Electric? Y (Otherwise assumed diesel)
2	Forklifts	89	0.2	6	250	5.3	53400	Liquid Propane (LPG)? N (Otherwise Assumed diesel)
	Generator Sets	84	0.74	0	0	0.0	0	Or temporary line power? Y
	Tractors/Loaders/Backhoes	97	0.37	0	0	0.0	0	
1	Welders	46	0.45	8	50	1.4	8280	
	Other Equipment?							
Building - Interior/Architectural Coating		Start Date:	4/1/2025	Total phase:	171			
		End Date:	11/27/2025					
5	Air Compressors	78	0.48	8	150	7.0	224640	
1	Aerial Lift	82	0.31	8	60	2.8	9228	
	Other Equipment?							
Paving		Start Date:	11/27/2025	Total phase:	10			Asphalt? 113 cubic yards
		End Date:	12/11/2025					
	Cement and Mortar Mixers	9	0.56	0	0	0	0	
1	Pavers	130	0.42	4	6	2.4	1310	
1	Paving Equipment	132	0.36	4	6	2.4	1140	
1	Rollers	80	0.38	4	6	2.4	730	
1	Tractors/Loaders/Backhoes	97	0.37	4	6	2.4	861	
	Other Equipment?							
Additional Phases		Start Date:		Total phase:				
		Start Date:						
						#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

Air Quality/Noise Construction Information Data Request

Project Name: 681 E. Trimble Mixed-Use	Complete ALL Portions in Yellow																								
See Equipment Type TAB for type, horsepower and load factor																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Project Size</td> <td style="width: 40%;">154 Dwelling Units</td> <td style="width: 40%;">7.28 total project acres disturbed</td> </tr> <tr> <td></td> <td>301,313 s.f. residential</td> <td></td> </tr> <tr> <td></td> <td>s.f. retail</td> <td></td> </tr> <tr> <td></td> <td>s.f. office/commercial</td> <td></td> </tr> <tr> <td></td> <td>s.f. other, specify:</td> <td></td> </tr> <tr> <td></td> <td>70222 s.f. parking garage</td> <td>348 spaces</td> </tr> <tr> <td></td> <td>s.f. parking lot</td> <td>spaces</td> </tr> <tr> <td>Construction Hours</td> <td>am to</td> <td>pm</td> </tr> </table>	Project Size	154 Dwelling Units	7.28 total project acres disturbed		301,313 s.f. residential			s.f. retail			s.f. office/commercial			s.f. other, specify:			70222 s.f. parking garage	348 spaces		s.f. parking lot	spaces	Construction Hours	am to	pm	<p>Pile Driving? Y/N? <u>NO</u></p> <p>Project include on-site GENERATOR OR FIRE PUMP during project OPERATION? Y/N? <u>NO</u></p> <p>IF YES (if BOTH separate values) --> <u>N/A</u></p> <p>Kilowatts/Horsepower: <u>N/A</u></p> <p>Fuel Type: <u>N/A</u></p> <p>Location in project (Plans Desired if Available):</p>
Project Size	154 Dwelling Units	7.28 total project acres disturbed																							
	301,313 s.f. residential																								
	s.f. retail																								
	s.f. office/commercial																								
	s.f. other, specify:																								
	70222 s.f. parking garage	348 spaces																							
	s.f. parking lot	spaces																							
Construction Hours	am to	pm																							

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
Overall Import/Export Volumes								
Hanover	Demolition	Start Date: 1/3/2022	Total phase:					Demolition Volume
		End Date:						Square footage of buildings to be demolished
	Concrete/Industrial Saws	81	0.73			#DIV/0!	#VALUE!	(or total tons to be hauled)
	Excavators	158	0.38			#DIV/0!	0	? square feet or
	Rubber-Tired Dozers	247	0.4			#DIV/0!	0	? Hauling volume (tons)
	Tractors/Loaders/Backhoes	97	0.37			#DIV/0!	0	Any pavement demolished and hauled? <u>? tons</u>
	Other Equipment?							
	Site Preparation ???	Start Date:	Total phase:					
		End Date:						
	Graders	187	0.41			#DIV/0!	0	
	Rubber Tired Dozers	247	0.4			#DIV/0!	0	
	Tractors/Loaders/Backhoes	97	0.37			#DIV/0!	0	
	Other Equipment?							
	Grading / Excavation	Start Date:	Total phase:					
		End Date:						
Excavators	158	0.38			#DIV/0!	0	Soil Hauling Volume	
Graders	187	0.41			#DIV/0!	0	Export volume = ? cubic yards?	
Rubber Tired Dozers	247	0.4			#DIV/0!	0	Import volume = ? cubic yards?	
Concrete/Industrial Saws	81	0.73			#DIV/0!	0		
Tractors/Loaders/Backhoes	97	0.37			#DIV/0!	0		
Other Equipment?								
Trenching/Underground Utilities								
	Start Date: 4/1/2024	Total phase:		98				
	End Date: 7/8/2024							
1	Tractor/Loader/Backhoe	97	0.37	6	50	3.1	10767	
1	Excavators	158	0.38	4	20	0.8	4803	
	Other Equipment?							
Fine Grade, Rock, Pave								
	Start Date: 7/9/2024	Total phase:		56				Cement Trucks? <u>_Y_</u> Total Round-Trips 50
	End Date: 9/3/2024							
1	Tractor/Loader/Backhoe	97	0.37	4	10	0.7	1436	
1	Graders	187	0.41	8	8	1.1	4907	
1	Scraper	367	0.48	4	6	0.4	4227.84	
1	Concrete/Industrial Saws	81	0.73	2	5	0.2	591	
1	Pavers	247	0.4	8	1	0.1	790	Asphalt? <u>YES</u> <u>150</u> round trips?
1	Rollers	80	0.38	4	15	1.1	1824	
	Other Equipment?							
Building Foundation								
	Start Date: 9/4/2024	Total phase:		55				Cement Trucks? <u>?_</u> Total Round-Trips
	End Date: 10/13/2024							
1	Tractor/Loader/Backhoe	2	0.37	8	39	5.7	231	
1	Excavators	2	0.38	8	39	5.7	237	
	Other Equipment?	NA						
Building - Exterior								
	Start Date: 9/25/2024	Total phase:		730				Cement Trucks? <u>_Y_</u> Total Round-Trips300
	End Date: 9/25/2026							
1	Cranes	1	0.29	4	26	0.1	30	Electric? (Y/N) <u>_</u> Otherwise assumed diesel
1	Forklifts	2	0.2	8	730	8.0	2336	Liquid Propane (LPG)? (Y/N) <u>_</u> Otherwise Assumed diesel
1	Generator Sets	2	0.74	8	365	4.0	4322	Or temporary line power? (Y/N) <u>_Y_</u>
1	Tractors/Loaders/Backhoes	1	0.37	8	243	2.7	719	
	Welders	NA	0.45					
	Other Equipment?	NA						
Building - Interior								
	Start Date: 1/23/2026	Total phase:		365				
	End Date: 1/23/2027							
1	Air Compressors	10	0.48	4	365	4.0	7008	
	Aerial Lift	NA	0.31					
	Other Equipment?							
Additional Phases								
	Start Date:	Total phase:						
	Start Date:							
						#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

Air Quality/Noise Construction Information Data Request

Project Name: 681 E. Trimble - Affordable rental building **Complete ALL Portions in Yellow**

See Equipment Type TAB for type, horsepower and load factor

Project Size	172 Dwelling Units	1.24 total project acres disturbed
	136,000 s.f. residential	
	- s.f. retail	
	- s.f. office/commercial	
	- s.f. other, specify:	
	33,405 s.f. parking garage	86 spaces
	s.f. parking lot	spaces
Construction Hours	am to	pm

Pile Driving? N

Project include on-site GENERATOR OR FIRE PUMP during project OPERATION? N

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	Start Date:		Total phase:	0			Overall Import/Export Volumes
		End Date:						
	Concrete/Industrial Saws	81	0.73			#DIV/0!	0	Demolition Volume
	Excavators	158	0.38			#DIV/0!	0	Square footage of buildings to be demolished
	Rubber-Tired Dozers	247	0.4			#DIV/0!	0	(or total tons to be hauled)
	Tractors/Loaders/Backhoes	97	0.37			#DIV/0!	0	0 square feet or
	Other Equipment?							Hauling volume (tons)
								Any pavement demolished and hauled? 0 tons
	Site Preparation	Start Date:	8/1/2024	Total phase:	10			
		End Date:	8/15/2024					
1	Graders	187	0.41	8	4	3.2	2453	
	Rubber Tired Dozers	247	0.4			-	0	
1	Tractors/Loaders/Backhoes	97	0.37	8	4	3.2	1148	
2	Bore / Drill Rig	221	0.5	8	10	8.0	17680	
	Other Equipment?						0	
	Shoring / Excavation	Start Date:		Total phase:	0			Soil Hauling Volume
		End Date:						Export volume = 0 cubic yards
	Excavators	158	0.38			#DIV/0!	0	Import volume = 0 cubic yards
	Graders	187	0.41			#DIV/0!	0	
	Rubber Tired Dozers	247	0.4			#DIV/0!	0	
	Concrete/Industrial Saws	81	0.73			#DIV/0!	0	
	Tractors/Loaders/Backhoes	97	0.37			#DIV/0!	0	
	Bore / Drill Rig (tiebacks)	221	0.5			#DIV/0!	0	
	Trenching/Foundation	Start Date:	8/15/2024	Total phase:	10			
		End Date:	8/29/2024					
2	Tractor/Loader/Backhoe	97	0.37	8	10	8.0	5742	
1	Excavators	158	0.38	8	5	4.0	2402	
	Other Equipment?							
	Building - Exterior	Start Date:	8/29/2024	Total phase:	195			Cement Trucks? 200 Total Round-Trips
		End Date:	5/29/2025					
1	Cranes	231	0.29	8	195	8.0	104504	Electric? Y (Otherwise assumed diesel)
2	Forklifts	89	0.2	6	195	6.0	41652	Liquid Propane (LPG)? N (Otherwise Assumed diesel)
	Generator Sets	84	0.74	0	0	0	0	Or temporary line power? Y
	Tractors/Loaders/Backhoes	97	0.37	0	0	0	0	
1	Welders	46	0.45	8	50	2.1	8280	
	Other Equipment?							
	Building - Interior/Architectural Coating	Start Date:	4/29/2025	Total phase:	131			
		End Date:	10/29/2025					
5	Air Compressors	78	0.48	8	131	8.0	196186	
1	Aerial Lift	62	0.31	8	60	3.7	9226	
	Other Equipment?							
	Paving	Start Date:	10/8/2025	Total phase:	15			
		End Date:	10/29/2025					
	Cement and Mortar Mixers	9	0.56	0	0	0	0	
1	Pavers	130	0.42	4	6	1.6	1310	
1	Paving Equipment	132	0.36	4	6	1.6	1140	
1	Rollers	80	0.38	4	6	1.6	730	
1	Tractors/Loaders/Backhoes	97	0.37	4	6	1.6	861	
	Other Equipment?							
	Additional Phases	Start Date:		Total phase:				
		Start Date:						
						#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

Air Quality/Noise Construction Information Data Request

Project Name: **681 E. Trimble Mixed-Use - BUILDING 2** **Complete ALL Portions in Yellow**

See Equipment Type TAB for type, horsepower and load factor

Project Size	386 Dwelling Units	2.12 total project acres disturbed
	407,119 s.f. residential	
	44,415 s.f. retail	
	- s.f. office/commercial	
	- s.f. other, specify:	
	231,520 s.f. parking garage	695 spaces
	s.f. parking lot	spaces
Construction Hours	am to	pm

Pile Driving? N

Project include on-site GENERATOR OR FIRE PUMP during project OPERATION? N

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	Start Date:		Total phase:	0			Overall Import/Export Volumes
		End Date:						
	Concrete/Industrial Saws	81	0.73			#DIV/0!	0	Demolition Volume
	Excavators	158	0.38			#DIV/0!	0	Square footage of buildings to be demolished
	Rubber-Tired Dozers	247	0.4			#DIV/0!	0	(or total tons to be hauled)
	Tractors/Loaders/Backhoes	97	0.37			#DIV/0!	0	0 square feet or
	Other Equipment?							Hauling volume (tons)
								Any pavement demolished and hauled? 0 tons
	Site Preparation	Start Date:	10/1/2024	Total phase:	21			
		End Date:	10/31/2024					
1	Graders	187	0.41	8	4	1.5	2453	
	Rubber Tired Dozers	247	0.4			-	0	
1	Tractors/Loaders/Backhoes	97	0.37	8	4	1.5	1148	
2	Bore / Drill Rig	221	0.5	8	21	8.0	37128	
	Other Equipment?						0	
	Shoring / Excavation	Start Date:		Total phase:	0			Soil Hauling Volume
		End Date:						Export volume = 0 cubic yards
	Excavators	158	0.38			#DIV/0!	0	Import volume = 0 cubic yards
	Graders	187	0.41			#DIV/0!	0	
	Rubber Tired Dozers	247	0.4			#DIV/0!	0	
	Concrete/Industrial Saws	81	0.73			#DIV/0!	0	
	Tractors/Loaders/Backhoes	97	0.37			#DIV/0!	0	
	Bore / Drill Rig (tiebacks)	221	0.5			#DIV/0!	0	
	Trenching/Foundation	Start Date:	10/31/2024	Total phase:	21			
		End Date:	11/30/2024					
2	Tractor/Loader/Backhoe	97	0.37	8	18	6.7	10336	
1	Excavators	158	0.38	8	5	1.9	2402	
	Other Equipment?							
	Building - Exterior	Start Date:	11/30/2024	Total phase:	347			Cement Trucks? 1,900 Total Round-Trips
		End Date:	3/31/2026					
1	Cranes	231	0.29	8	340	7.8	182213	Electric? Y (Otherwise assumed diesel)
2	Forklifts	89	0.2	6	340	5.9	72624	Liquid Propane (LPG)? N (Otherwise Assumed diesel)
	Generator Sets	84	0.74	0	0	0	0	Or temporary line power? Y
	Tractors/Loaders/Backhoes	97	0.37	0	0	0	0	
1	Welders	46	0.45	8	70	1.6	11592	
	Other Equipment?							
	Building - Interior/Architectural Coating	Start Date:	12/31/2025	Total phase:	217			
		End Date:	10/31/2026					
5	Air Compressors	78	0.48	8	150	5.5	224640	
1	Aerial Lift	62	0.31	8	60	2.2	9226	
	Other Equipment?							
	Paving	Start Date:	10/31/2026	Total phase:	10			
		End Date:	11/14/2026					
	Cement and Mortar Mixers	9	0.56	0	0	-	0	
1	Pavers	130	0.42	4	6	2.4	1310	Asphalt? 113 cubic yards
1	Paving Equipment	132	0.36	4	6	2.4	1140	
1	Rollers	80	0.38	4	6	2.4	730	
1	Tractors/Loaders/Backhoes	97	0.37	4	6	2.4	861	
	Other Equipment?							
	Additional Phases	Start Date:		Total phase:				
		Start Date:						
						#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

Air Quality/Noise Construction Information Data Request

Project Name: 681 E. Trimble Mixed-Use - BUILDING 3 **Complete ALL Portions in Yellow**

See Equipment Type TAB for type, horsepower and load factor

Project Size	378 Dwelling Units	2.12 total project acres disturbed
	414,015 s.f. residential	
	6,653 s.f. retail	
	- s.f. office/commercial	
	- s.f. other, specify:	
	193,575 s.f. parking garage	532 spaces
	- s.f. parking lot	spaces
Construction Hours	am to	pm

Pile Driving? N

Project include on-site GENERATOR OR FIRE PUMP during project OPERATION? N

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		Start Date:	Total phase:		0				Overall Import/Export Volumes
		End Date:							
	Concrete/Industrial Saws	81	0.73			#DIV/0!	0	Demolition Volume	
	Excavators	158	0.38			#DIV/0!	0	Square footage of buildings to be demolished	
	Rubber-Tired Dozers	247	0.4			#DIV/0!	0	(or total tons to be hauled)	
	Tractors/Loaders/Backhoes	97	0.37			#DIV/0!	0	0 square feet or	
	Other Equipment?							Hauling volume (tons)	
								Any pavement demolished and hauled? 0 tons	
Site Preparation		Start Date:	4/1/2026	Total phase:		21			
		End Date:	5/1/2026						
1	Graders	187	0.41	8	4	1.5	2453		
	Rubber Tired Dozers	247	0.4			-	0		
1	Tractors/Loaders/Backhoes	97	0.37	8	4	1.5	1148		
2	Bore / Drill Rig	221	0.5	8	21	8.0	37128		
	Other Equipment?								
Shoring / Excavation		Start Date:		Total phase:		0			
		End Date:							
	Excavators	158	0.38			#DIV/0!	0	Soil Hauling Volume	
	Graders	187	0.41			#DIV/0!	0	Export volume = 0 cubic yards	
	Rubber Tired Dozers	247	0.4			#DIV/0!	0	Import volume = 0 cubic yards	
	Concrete/Industrial Saws	81	0.73			#DIV/0!	0		
	Tractors/Loaders/Backhoes	97	0.37			#DIV/0!	0		
	Bore / Drill Rig (tiebacks)	221	0.5			#DIV/0!	0		
Trenching/Foundation		Start Date:	5/1/2026	Total phase:		21			
		End Date:	5/31/2026						
2	Tractor/Loader/Backhoe	97	0.37	8	18	6.7	10336		
1	Excavators	158	0.38	8	5	1.9	2402		
	Other Equipment?								
Building - Exterior		Start Date:	5/31/2026	Total phase:		282			
		End Date:	6/30/2027						
1	Cranes	231	0.29	8	250	7.1	133980	Cement Trucks? 1,700 Total Round-Trips	
2	Forklifts	89	0.2	6	250	5.3	53400	Electric? Y (Otherwise assumed diesel)	
	Generator Sets	84	0.74	0	0	0	0	Liquid Propane (LPG)? N (Otherwise Assumed diesel)	
	Tractors/Loaders/Backhoes	97	0.37	0	0	0	0	Or temporary line power? Y	
1	Welders	46	0.45	8	50	1.4	8280		
	Other Equipment?								
Building - Interior/Architectural Coating		Start Date:	4/1/2027	Total phase:		171			
		End Date:	11/27/2027						
5	Air Compressors	78	0.48	8	150	7.0	224640		
1	Aerial Lift	62	0.31	8	60	2.8	9228		
	Other Equipment?								
Paving		Start Date:	11/27/2027	Total phase:		10			
		End Date:	12/11/2027						
	Cement and Mortar Mixers	9	0.56	0	0	0	0	Asphalt? 113 cubic yards	
1	Pavers	130	0.42	4	6	2.4	1310		
1	Paving Equipment	132	0.36	4	6	2.4	1140		
1	Rollers	80	0.38	4	6	2.4	730		
1	Tractors/Loaders/Backhoes	97	0.37	4	6	2.4	861		
	Other Equipment?								
Additional Phases		Start Date:		Total phase:					
		Start Date:							
						#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

Unmitigated Total Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	CO2e	
Year	Tons				MT	
Construction Equipment						
2024	0.22	2.15	0.09	0.08	404.02	
2025	4.23	2.70	0.12	0.11	526.82	
2026	5.34	1.60	0.07	0.07	332.08	
2027	3.23	0.87	0.04	0.04	178.37	
EMFAC						
2024	0.17	0.69	0.05	0.02	743.18	
2025	0.28	0.86	0.08	0.03	1066.81	
2026	0.21	0.66	0.06	0.02	835.23	
2027	0.08	0.27	0.03	0.01	347.44	
Total Construction Emissions by Year						
2024	0.39	2.84	0.14	0.10	1147.20	
2025	4.50	3.56	0.20	0.14	1593.63	
2026	5.54	2.26	0.13	0.09	1167.31	
2027	3.32	1.14	0.06	0.05	525.81	
Total Construction Emissions						
Tons	13.75	9.79	0.53	0.39	4433.94	
Pounds/Workdays	Average Daily Emissions				Workdays	
2024	2.83	20.65	1.04	0.76		275
2025	24.68	19.49	1.07	0.79		365
2026	30.37	12.37	0.72	0.50		365
2027	26.93	9.24	0.52	0.39		246
Threshold - lbs/day	54.0	54.0	82.0	54.0		
Total Construction Emissions						
Pounds	84.82	61.75	3.36	2.43	0.00	
Average	21.98	15.65	0.85	0.62	0.00	1251
Threshold - lbs/day	54.0	54.0	82.0	54.0		

Infrastructure Unmitigated Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	CO2e	
Year	Tons				MT	
Construction Equipment						
2024	0.11	1.07	0.04	0.04	196.31	
2025						
2026						
2027						
EMFAC						
2024	0.01	0.19	0.01	0.01	139.20	
2025						
2026						
2027						
Total Construction Emissions by Year						
2024	0.11	1.26	0.05	0.04	335.51	
2025	0.00	0.00	0.00	0.00	0.00	
2026	0.00	0.00	0.00	0.00	0.00	
2027	0.00	0.00	0.00	0.00	0.00	
Total Construction Emissions						
Tons	0.11	1.26	0.05	0.04	335.51	
Pounds/Workdays	Average Daily Emissions				Workdays	
2024	1.30	14.41	0.61	0.49		175
2025	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
2026	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
2027	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
Threshold - lbs/day	54.0	54.0	82.0	54.0		
Total Construction Emissions						
Pounds	1.30	14.41	0.61	0.49	0.00	
Average	1.30	14.41	0.61	0.49	0.00	175.00
Threshold - lbs/day	54.0	54.0	82.0	54.0		

Building 1 Unmitigated Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	CO2e	
Year	Tons				MT	
Construction Equipment						
2024	0.04	0.43	0.02	0.02	76.35	
2025	3.03	0.86	0.04	0.04	177.17	
2026						
2027						
EMFAC						
2024	0.07	0.23	0.02	0.01	275.64	
2025	0.09	0.27	0.02	0.01	337.14	
2026						
2027						
Total Construction Emissions by Year						
2024	0.12	0.66	0.04	0.02	351.99	
2025	3.12	1.14	0.06	0.05	514.31	
2026	0.00	0.00	0.00	0.00	0.00	
2027	0.00	0.00	0.00	0.00	0.00	
Total Construction Emissions						
Tons	3.24	1.80	0.10	0.07	866.31	
Pounds/Workdays	Average Daily Emissions				Workdays	
2024	1.19	6.69	0.39	0.25		197
2025	25.35	9.25	0.51	0.38		246
2026	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
2027	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
Threshold - lbs/day	54.0	54.0	82.0	54.0		
Total Construction Emissions						
Pounds	26.54	15.94	0.89	0.63	0.00	
Average	14.62	8.11	0.45	0.32	0.00	443.14
Threshold - lbs/day	54.0	54.0	82.0	54.0		

TH Unmitigated Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	CO2e	
Year	Tons				MT	
Construction Equipment						
2024	0.03	0.24	0.01	0.01	49.82	
2025	0.05	0.46	0.02	0.02	94.51	
2026	2.06	0.47	0.02	0.02	98.63	
2027	0.13	0.01	0.0004	0.0004	1.87	
EMFAC						
2024	0.05	0.14	0.01	0.005	170.39	
2025	0.06	0.17	0.02	0.01	221.06	
2026	0.06	0.16	0.02	0.01	216.33	
2027	0.00	0.01	0.001	0.0004	12.75	
Total Construction Emissions by Year						
2024	0.07	0.37	0.02	0.02	220.20	
2025	0.11	0.63	0.04	0.03	315.57	
2026	2.12	0.63	0.04	0.03	314.95	
2027	0.13	0.02	0.00	0.00	14.63	
Total Construction Emissions						
Tons	2.43	1.64	0.10	0.07	865.35	
Pounds/Workdays	Average Daily Emissions				Workdays	
2024	0.53	2.72	0.17	0.11		275
2025	0.60	3.43	0.20	0.14		365
2026	11.61	3.43	0.20	0.14		365
2027	12.11	1.59	0.12	0.07		22
Threshold - lbs/day	54.0	54.0	82.0	54.0		
Total Construction Emissions						
Pounds	24.85	11.17	0.68	0.46	0.00	
Average	4.74	3.20	0.19	0.13	0.00	1027.00
Threshold - lbs/day	54.0	54.0	82.0	54.0		

Affordable Unmitigated Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	CO2e	
Year	Tons				MT	
Construction Equipment						
2024	0.03	0.28	0.01	0.01	48.05	
2025	1.07	0.78	0.03	0.03	158.52	
2026						
2027						
EMFAC						
2024	0.02	0.04	0.004	0.001	53.25	
2025	0.03	0.08	0.01	0.003	102.39	
2026						
2027						
Total Construction Emissions by Year						
2024	0.04	0.32	0.02	0.01	101.30	
2025	1.10	0.85	0.04	0.04	260.91	
2026	0.00	0.00	0.00	0.00	0.00	
2027	0.00	0.00	0.00	0.00	0.00	
Total Construction Emissions						
Tons	1.14	1.17	0.06	0.05	362.21	
Pounds/Workdays	Average Daily Emissions				Workdays	
2024	0.80	5.85	0.29	0.23		110
2025	10.16	7.91	0.39	0.34		216
2026	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
2027	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
Threshold - lbs/day	54.0	54.0	82.0	54.0		
Total Construction Emissions						
Pounds	10.97	13.76	0.68	0.57	0.00	
Average	7.01	7.22	0.35	0.30	0.00	325.29
Threshold - lbs/day	54.0	54.0	82.0	54.0		

Building 2 Unmitigated Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	CO2e	
Year	Tons				MT	
Construction Equipment						
2024	0.01	0.14	0.01	0.01	33.50	
2025	0.08	0.60	0.03	0.02	96.61	
2026	3.23	0.74	0.03	0.03	156.77	
2027						
EMFAC						
2024	0.03	0.09	0.01	0.003	104.70	
2025	0.10	0.34	0.03	0.01	406.22	
2026	0.08	0.28	0.03	0.01	345.34	
2027						
Total Construction Emissions by Year						
2024	0.04	0.23	0.01	0.01	138.19	
2025	0.18	0.94	0.06	0.04	502.84	
2026	3.32	1.02	0.06	0.04	502.11	
2027	0.00	0.00	0.00	0.00	0.00	
Total Construction Emissions						
Tons	3.54	2.18	0.13	0.09	1143.14	
Pounds/Workdays	Average Daily Emissions				Workdays	
2024	1.25	6.86	0.39	0.24		66
2025	1.37	7.19	0.43	0.28		261
2026	29.24	8.98	0.51	0.37		227
2027	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
Threshold - lbs/day	54.0	54.0	82.0	54.0		
Total Construction Emissions						
Pounds	31.85	23.02	1.33	0.89	0.00	
Average	12.77	7.88	0.46	0.31	0.00	553.86
Threshold - lbs/day	54.0	54.0	82.0	54.0		

Building 3 Unmitigated Construction Criteria Air Pollutants						
Unmitigated	ROG	NOX	PM10 Exhaust	PM2.5 Exhaust	CO2e	
Year	Tons				MT	
Construction Equipment						
2024						
2025						
2026	0.04	0.39	0.02	0.02	76.68	
2027	3.10	0.86	0.04	0.04	176.49	
EMFAC						
2024						
2025						
2026	0.07	0.22	0.02	0.01	273.56	
2027	0.08	0.26	0.02	0.01	334.69	
Total Construction Emissions by Year						
2024	0.00	0.00	0.00	0.00	0.00	
2025	0.00	0.00	0.00	0.00	0.00	
2026	0.11	0.61	0.04	0.02	350.25	
2027	3.18	1.12	0.06	0.05	511.18	
Total Construction Emissions						
Tons	3.29	1.73	0.10	0.07	861.43	
Pounds/Workdays	Average Daily Emissions				Workdays	
2024	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
2025	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
2026	1.09	6.23	0.37	0.24		197
2027	25.85	9.09	0.51	0.38		246
Threshold - lbs/day	54.0	54.0	82.0	54.0		
Total Construction Emissions						
Pounds	26.95	15.32	0.88	0.62	0.00	
Average	14.85	7.82	0.45	0.32	0.00	443.14
Threshold - lbs/day	54.0	54.0	82.0	54.0		

681 E Trimble/Seely, San Jose - Infrastructure Construction - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

681 E Trimble/Seely, San Jose - Infrastructure Construction

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	2.50	Acre	2.50	108,900.00	0
Condo/Townhouse	154.00	Dwelling Unit	0.00	371,535.00	440
Apartments Mid Rise	1,316.00	Dwelling Unit	19.70	1,998,854.00	3764
Regional Shopping Center	56.50	1000sqft	0.00	56,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2025
Utility Company	San Jose Clean Energy				
CO2 Intensity (lb/MW hr)	178	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SJCE 2020 rate - 178

Land Use - Provided land uses

Construction Phase - Provided infrastructure construction schedule

Off-road Equipment - Provided infrastructure construction equip & hours

Off-road Equipment - Provided infrastructure construction equip & hours

Off-road Equipment - Provided infrastructure construction equip & hours

Off-road Equipment - Provided infrastructure construction equip & hours

Trips and VMT - EMFAC2021 0 trip adjustment, 350 tons pavement demo, paving = 6,500-cy asphalt

Demolition - existing building demo = 8,000-sf

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading - Site prep - 23,000-cy export, 1,000-cy import

Construction Off-road Equipment Mitigation - BMPs, Tier 4 interim mitigation

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	35.00	65.00
tblConstructionPhase	NumDays	20.00	66.00
tblConstructionPhase	NumDays	10.00	64.00
tblGrading	MaterialExported	0.00	23,000.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblGrading	MaterialImported	0.00	1,000.00
tblLandUse	LandUseSquareFeet	1,470,000.00	2,370,389.00
tblLandUse	LotAcreage	38.68	19.70
tblLandUse	LotAcreage	1.30	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	3.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	2.10
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	8.00	2.10
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	5.60

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblProjectCharacteristics	CO2IntensityFactor	807.98	178
tblTripsAndVMT	HaulingTripNumber	36.00	0.00
tblTripsAndVMT	HaulingTripNumber	3,000.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	33.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00

2.0 Emissions Summary

2.1 Overall Construction
Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.1062	1.0720	0.8794	2.2200e-003	0.1003	0.0409	0.1412	0.0111	0.0376	0.0487	0.0000	194.7380	194.7380	0.0630	0.0000	196.3126
Maximum	0.1062	1.0720	0.8794	2.2200e-003	0.1003	0.0409	0.1412	0.0111	0.0376	0.0487	0.0000	194.7380	194.7380	0.0630	0.0000	196.3126

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2024	0.0384	0.6744	1.2937	2.2200e-003	0.0451	3.6200e-003	0.0488	4.9800e-003	3.6200e-003	8.6000e-003	0.0000	194.7378	194.7378	0.0630	0.0000	196.3124
Maximum	0.0384	0.6744	1.2937	2.2200e-003	0.0451	3.6200e-003	0.0488	4.9800e-003	3.6200e-003	8.6000e-003	0.0000	194.7378	194.7378	0.0630	0.0000	196.3124

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	63.83	37.09	-47.12	0.00	55.00	91.15	65.47	54.97	90.38	82.34	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	2-1-2024	4-30-2024	1.0628	0.6033
2	5-1-2024	7-31-2024	0.0731	0.0670
3	8-1-2024	9-30-2024	0.0448	0.0432
		Highest	1.0628	0.6033

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/1/2024	2/21/2024	5	15	
2	Site Preparation	Site Preparation	2/1/2024	4/30/2024	5	64	
3	Trenching/Utilities	Grading	4/1/2024	6/28/2024	5	65	
4	Paving	Paving	7/1/2024	9/30/2024	5	66	

Acres of Grading (Site Preparation Phase): 179.2

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Excavators	1	2.10	158	0.38
Demolition	Rubber Tired Dozers	1	2.10	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	2.10	97	0.37
Site Preparation	Graders	3	8.00	187	0.41
Site Preparation	Off-Highway Trucks	3	2.60	402	0.38
Site Preparation	Rubber Tired Dozers	0	0.00	247	0.40
Site Preparation	Scrapers	4	2.60	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	3	5.60	97	0.37
Trenching/Utilities	Excavators	0	0.00	158	0.38
Trenching/Utilities	Graders	0	0.00	187	0.41
Trenching/Utilities	Rubber Tired Dozers	0	0.00	247	0.40
Trenching/Utilities	Scrapers	0	0.00	367	0.48
Trenching/Utilities	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Pavers	1	2.40	130	0.42
Paving	Paving Equipment	1	2.40	132	0.36
Paving	Rollers	1	2.40	80	0.38
Paving	Tractors/Loaders/Backhoes	1	2.40	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	13	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching/Utilities	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	380.00	Dwelling Unit	2.12	405,463.00	1087
Regional Shopping Center	5.43	1000sqft	0.00	5,431.00	0
Enclosed Parking with Elevator	559.00	Space	0.00	177,758.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2026
Utility Company	San Jose Clean Energy				
CO2 Intensity (lb/MW hr)	178	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SJCE 2020 rate = 178

Land Use - Provided land uses

Construction Phase - Provided Building 1 construction schedule

Off-road Equipment - Provided Building 1 construction equip & hours

Off-road Equipment - Provided Building 1 construction equip & hours

Off-road Equipment - Provided Building 1 construction equip & hours

Off-road Equipment - Provided Building 1 construction equip & hours

Off-road Equipment - Provided Building 1 construction equip & hours

Grading -

Trips and VMT - EMFAC2021 0 trip adjustment, building ext = 1,300 cement truck round trips, paving = 113-cy asphalt

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	10.00	171.00
tblConstructionPhase	NumDays	220.00	282.00
tblConstructionPhase	NumDays	6.00	21.00
tblConstructionPhase	NumDays	3.00	21.00
tblConstructionPhase	PhaseEndDate	4/10/2025	11/25/2025
tblConstructionPhase	PhaseEndDate	3/13/2025	6/30/2025
tblConstructionPhase	PhaseEndDate	5/9/2024	5/29/2024
tblConstructionPhase	PhaseEndDate	3/27/2025	12/10/2025
tblConstructionPhase	PhaseEndDate	5/1/2024	4/29/2024
tblConstructionPhase	PhaseStartDate	3/28/2025	4/1/2025
tblConstructionPhase	PhaseStartDate	5/10/2024	5/31/2024
tblConstructionPhase	PhaseStartDate	5/2/2024	5/1/2024
tblConstructionPhase	PhaseStartDate	3/14/2025	11/27/2025
tblConstructionPhase	PhaseStartDate	4/27/2024	4/1/2024
tblLandUse	LandUseSquareFeet	380,000.00	405,463.00
tblLandUse	LandUseSquareFeet	223,600.00	177,758.00
tblLandUse	LotAcreage	10.00	2.12
tblLandUse	LotAcreage	0.12	0.00
tblLandUse	LotAcreage	5.03	0.00
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	7.10
tblOffRoadEquipment	UsageHours	7.00	5.30
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.50
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	7.00	6.70
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	7.00	1.50
tblOffRoadEquipment	UsageHours	8.00	1.40
tblProjectCharacteristics	CO2IntensityFactor	807.98	178
tblTripsAndVMT	VendorTripNumber	71.00	0.00
tblTripsAndVMT	WorkerTripNumber	70.00	0.00
tblTripsAndVMT	WorkerTripNumber	350.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0436	0.4261	0.3564	8.7000e-004	1.0400e-003	0.0188	0.0198	1.1000e-004	0.0173	0.0174	0.0000	75.7491	75.7491	0.0239	0.0000	76.3476
2025	3.0348	0.8639	1.1668	2.0500e-003	0.0000	0.0384	0.0384	0.0000	0.0374	0.0374	0.0000	176.6124	176.6124	0.0224	0.0000	177.1723
Maximum	3.0348	0.8639	1.1668	2.0500e-003	1.0400e-003	0.0384	0.0384	1.1000e-004	0.0374	0.0374	0.0000	176.6124	176.6124	0.0239	0.0000	177.1723

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0155	0.2825	0.5158	8.7000e-004	4.7000e-004	1.9900e-003	2.4600e-003	5.0000e-005	1.9900e-003	2.0400e-003	0.0000	75.7490	75.7490	0.0239	0.0000	76.3475
2025	2.9573	0.7314	1.2633	2.0500e-003	0.0000	4.4500e-003	4.4500e-003	0.0000	4.4500e-003	4.4500e-003	0.0000	176.6122	176.6122	0.0224	0.0000	177.1721

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Maximum	2.9573	0.7314	1.2633	2.0500e-003	4.7000e-004	4.4500e-003	4.4500e-003	5.0000e-005	4.4500e-003	4.4500e-003	0.0000	176.6122	176.6122	0.0239	0.0000	177.1721
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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	3.43	21.40	-16.80	0.00	54.81	88.73	88.12	54.55	88.23	88.16	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2024	6-30-2024	0.1425	0.1220
2	7-1-2024	9-30-2024	0.1637	0.0878
3	10-1-2024	12-31-2024	0.1637	0.0878
4	1-1-2025	3-31-2025	0.1466	0.0858
5	4-1-2025	6-30-2025	1.5139	1.4190
6	7-1-2025	9-30-2025	1.3806	1.3468
		Highest	1.5139	1.4190

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2024	4/29/2024	5	21	
2	Trenching	Grading	5/1/2024	5/29/2024	5	21	
3	Building Construction	Building Construction	5/31/2024	6/30/2025	5	282	
4	Architectural Coating	Architectural Coating	4/1/2025	11/25/2025	5	171	
5	Paving	Paving	11/27/2025	12/10/2025	5	10	

Acres of Grading (Site Preparation Phase): 1.97

Acres of Grading (Grading Phase): 0

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Architectural Coating	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Use Cleaner Engines for Construction Equipment
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0400e-003	0.0000	1.0400e-003	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4200e-003	0.0512	0.0507	2.2000e-004		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	19.2469	19.2469	6.2200e-003	0.0000	19.4025
Total	5.4200e-003	0.0512	0.0507	2.2000e-004	1.0400e-003	1.7200e-003	2.7600e-003	1.1000e-004	1.5800e-003	1.6900e-003	0.0000	19.2469	19.2469	6.2200e-003	0.0000	19.4025

Unmitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.7000e-004	0.0000	4.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6400e-003	0.0592	0.1185	2.2000e-004		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	19.2469	19.2469	6.2200e-003	0.0000	19.4025
Total	3.6400e-003	0.0592	0.1185	2.2000e-004	4.7000e-004	3.6000e-004	8.3000e-004	5.0000e-005	3.6000e-004	4.1000e-004	0.0000	19.2469	19.2469	6.2200e-003	0.0000	19.4025

Mitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.3 Trenching - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9800e-003	0.0290	0.0475	7.0000e-005		1.3400e-003	1.3400e-003		1.2300e-003	1.2300e-003	0.0000	5.9521	5.9521	1.9300e-003	0.0000	6.0003
Total	2.9800e-003	0.0290	0.0475	7.0000e-005	0.0000	1.3400e-003	1.3400e-003	0.0000	1.2300e-003	1.2300e-003	0.0000	5.9521	5.9521	1.9300e-003	0.0000	6.0003

Unmitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3800e-003	0.0295	0.0510	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	5.9521	5.9521	1.9300e-003	0.0000	6.0003
Total	1.3800e-003	0.0295	0.0510	7.0000e-005	0.0000	1.1000e-004	1.1000e-004	0.0000	1.1000e-004	1.1000e-004	0.0000	5.9521	5.9521	1.9300e-003	0.0000	6.0003

Mitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0352	0.3460	0.2583	5.8000e-004		0.0157	0.0157		0.0145	0.0145	0.0000	50.5501	50.5501	0.0158	0.0000	50.9448
Total	0.0352	0.3460	0.2583	5.8000e-004		0.0157	0.0157		0.0145	0.0145	0.0000	50.5501	50.5501	0.0158	0.0000	50.9448

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	tons/yr										MT/yr					
	Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0105	0.1938	0.3463	5.8000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	50.5500	50.5500	0.0158	0.0000	50.9448
Total	0.0105	0.1938	0.3463	5.8000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	50.5500	50.5500	0.0158	0.0000	50.9448

Mitigated Construction Off-Site

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**681 E Trimble/Seely, San Jose - Townhomes Construction
Santa Clara County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	154.00	Dwelling Unit	7.28	301,313.00	440
Enclosed Parking Structure	348.00	Space	0.00	70,222.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2027
Utility Company	San Jose Clean Energy				
CO2 Intensity (lb/MW hr)	178	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SJCE 2020 rate = 178

Land Use - Provided land uses

Construction Phase - Provided TH construction schedule

Off-road Equipment - Provided townhome construction equip & hours

Off-road Equipment - Provided townhome construction equip & hours

Grading -

Off-road Equipment - Provided townhome construction equip & hours

Off-road Equipment - Provided townhome construction equip & hours

Off-road Equipment - Provided townhome construction equip & hours

Trips and VMT - EMFAC2021 0 trip adjustment, paving = 50 cement truck round trips and 150 asphalt truck round trips, building ext = 300 cement truck round trips

Construction Off-road Equipment Mitigation - BMPs, Tier 4 interim mitigation

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	365.00
tblConstructionPhase	NumDays	230.00	730.00
tblConstructionPhase	NumDays	20.00	98.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	NumDays	20.00	56.00
tblConstructionPhase	NumDays	230.00	55.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	PhaseEndDate	6/20/2025	1/22/2027
tblConstructionPhase	PhaseEndDate	4/25/2025	9/25/2026
tblConstructionPhase	PhaseEndDate	6/7/2024	7/7/2024
tblConstructionPhase	PhaseEndDate	5/23/2025	9/2/2024
tblConstructionPhase	PhaseStartDate	5/24/2025	1/23/2026
tblConstructionPhase	PhaseStartDate	6/8/2024	9/26/2024
tblConstructionPhase	PhaseStartDate	5/11/2024	4/1/2024
tblConstructionPhase	PhaseStartDate	4/26/2025	7/9/2024
tblLandUse	LandUseSquareFeet	154,000.00	301,313.00
tblLandUse	LandUseSquareFeet	139,200.00	70,222.00
tblLandUse	LotAcreage	4.05	7.28
tblLandUse	LotAcreage	3.13	0.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.10
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.80
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.10
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.10
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	5.70
tblOffRoadEquipment	UsageHours	7.00	2.70
tblOffRoadEquipment	UsageHours	8.00	3.10
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.70
tblProjectCharacteristics	CO2IntensityFactor	807.98	178

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	VendorTripNumber	28.00	0.00
tblTripsAndVMT	VendorTripNumber	28.00	0.00
tblTripsAndVMT	WorkerTripNumber	28.00	0.00
tblTripsAndVMT	WorkerTripNumber	140.00	0.00
tblTripsAndVMT	WorkerTripNumber	140.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00

2.0 Emissions Summary

2.1 Overall Construction
Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0257	0.2385	0.3659	5.7000e-004	0.0000	0.0114	0.0114	0.0000	0.0107	0.0107	0.0000	49.5172	49.5172	0.0120	0.0000	49.8180
2025	0.0490	0.4574	0.6821	1.0800e-003	0.0000	0.0203	0.0203	0.0000	0.0194	0.0194	0.0000	94.1178	94.1178	0.0157	0.0000	94.5094
2026	2.0625	0.4668	0.7077	1.1400e-003	0.0000	0.0208	0.0208	0.0000	0.0201	0.0201	0.0000	98.2979	98.2979	0.0131	0.0000	98.6252
2027	0.1300	8.4000e-003	0.0133	2.0000e-005	0.0000	3.8000e-004	3.8000e-004	0.0000	3.8000e-004	3.8000e-004	0.0000	1.8724	1.8724	1.0000e-004	0.0000	1.8749
Maximum	2.0625	0.4668	0.7077	1.1400e-003	0.0000	0.0208	0.0208	0.0000	0.0201	0.0201	0.0000	98.2979	98.2979	0.0157	0.0000	98.6252

Mitigated Construction

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0107	0.2328	0.4030	5.7000e-004	0.0000	8.8000e-004	8.8000e-004	0.0000	8.8000e-004	8.8000e-004	0.0000	49.5171	49.5171	0.0120	0.0000	49.8179
2025	0.0218	0.4236	0.7334	1.0800e-003	0.0000	1.5900e-003	1.5900e-003	0.0000	1.5900e-003	1.5900e-003	0.0000	94.1177	94.1177	0.0157	0.0000	94.5093
2026	2.0292	0.4322	0.7480	1.1400e-003	0.0000	1.6200e-003	1.6200e-003	0.0000	1.6200e-003	1.6200e-003	0.0000	98.2978	98.2978	0.0131	0.0000	98.6251
2027	0.1291	7.7700e-003	0.0134	2.0000e-005	0.0000	3.0000e-005	3.0000e-005	0.0000	3.0000e-005	3.0000e-005	0.0000	1.8724	1.8724	1.0000e-004	0.0000	1.8749
Maximum	2.0292	0.4322	0.7480	1.1400e-003	0.0000	1.6200e-003	1.6200e-003	0.0000	1.6200e-003	1.6200e-003	0.0000	98.2978	98.2978	0.0157	0.0000	98.6251

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	3.37	6.39	-7.28	0.00	0.00	92.22	92.22	0.00	91.86	91.86	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2024	6-30-2024	0.0353	0.0358
2	7-1-2024	9-30-2024	0.0602	0.0578
3	10-1-2024	12-31-2024	0.1687	0.1499
4	1-1-2025	3-31-2025	0.1249	0.1098
5	4-1-2025	6-30-2025	0.1263	0.1110
6	7-1-2025	9-30-2025	0.1277	0.1123
7	10-1-2025	12-31-2025	0.1277	0.1123
8	1-1-2026	3-31-2026	0.5526	0.5330
9	4-1-2026	6-30-2026	0.6987	0.6773
10	7-1-2026	9-30-2026	0.6994	0.6787

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11	10-1-2026	12-31-2026	0.5787	0.5725
12	1-1-2027	3-31-2027	0.1384	0.1369
		Highest	0.6994	0.6787

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching/Utilities	Grading	4/1/2024	7/7/2024	7	98	
2	Paving	Paving	7/9/2024	9/2/2024	7	56	
3	Building Foundation	Building Construction	9/4/2024	10/28/2024	7	55	
4	Building Construction	Building Construction	9/26/2024	9/25/2026	7	730	
5	Architectural Coating	Architectural Coating	1/23/2026	1/22/2027	7	365	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 610,159; Residential Outdoor: 203,386; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 4,213

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	4.00	78	0.48
Building Foundation	Cranes	0	0.00	231	0.29
Building Construction	Cranes	1	0.10	231	0.29
Building Foundation	Forklifts	0	0.00	89	0.20
Trenching/Utilities	Excavators	1	0.80	158	0.38
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Generator Sets	1	4.00	84	0.74

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trenching/Utilities	Graders	0	0.00	187	0.41
Paving	Pavers	1	0.10	130	0.42
Paving	Paving Equipment	0	0.00	132	0.36
Paving	Rollers	1	1.10	80	0.38
Building Foundation	Generator Sets	0	0.00	84	0.74
Trenching/Utilities	Rubber Tired Dozers	0	0.00	247	0.40
Building Foundation	Tractors/Loaders/Backhoes	1	5.70	97	0.37
Building Construction	Tractors/Loaders/Backhoes	1	2.70	97	0.37
Trenching/Utilities	Tractors/Loaders/Backhoes	1	3.10	97	0.37
Building Foundation	Welders	0	0.00	46	0.45
Building Construction	Welders	0	0.00	46	0.45
Paving	Rollers	1	0.70	80	0.38
Paving	Graders	1	0.40	187	0.41
Paving	Concrete/Industrial Saws	1	0.20	81	0.73
Building Foundation	Excavators	1	5.70	158	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Foundation	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching/Utilities	2	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.6200e-003	0.0714	0.1230	1.6000e-004		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	14.3007	14.3007	4.6300e-003	0.0000	14.4163
Total	2.6200e-003	0.0714	0.1230	1.6000e-004		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	14.3007	14.3007	4.6300e-003	0.0000	14.4163

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.5 Building Construction - 2024

Unmitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0140	0.1304	0.1818	2.9000e-004		6.3400e-003	6.3400e-003		6.0400e-003	6.0400e-003	0.0000	25.0078	25.0078	4.2100e-003	0.0000	25.1131
Total	0.0140	0.1304	0.1818	2.9000e-004		6.3400e-003	6.3400e-003		6.0400e-003	6.0400e-003	0.0000	25.0078	25.0078	4.2100e-003	0.0000	25.1131

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.8000e-003	0.1126	0.1949	2.9000e-004		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	25.0078	25.0078	4.2100e-003	0.0000	25.1130
Total	5.8000e-003	0.1126	0.1949	2.9000e-004		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	25.0078	25.0078	4.2100e-003	0.0000	25.1130

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	tons/yr										MT/yr					
	Off-Road	0.0490	0.4574	0.6821	1.0800e-003		0.0203	0.0203		0.0194	0.0194	0.0000	94.1178	94.1178	0.0157	0.0000
Total	0.0490	0.4574	0.6821	1.0800e-003		0.0203	0.0203		0.0194	0.0194	0.0000	94.1178	94.1178	0.0157	0.0000	94.5094

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-Road	0.0218	0.4236	0.7334	1.0800e-003		1.5900e-003	1.5900e-003		1.5900e-003	1.5900e-003	0.0000	94.1177	94.1177	0.0157	0.0000	94.5093
Total	0.0218	0.4236	0.7334	1.0800e-003		1.5900e-003	1.5900e-003		1.5900e-003	1.5900e-003	0.0000	94.1177	94.1177	0.0157	0.0000	94.5093

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0360	0.3359	0.5009	8.0000e-004		0.0149	0.0149		0.0143	0.0143	0.0000	69.1057	69.1057	0.0115	0.0000	69.3932

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total	0.0360	0.3359	0.5009	8.0000e-004		0.0149	0.0149		0.0143	0.0143	0.0000	69.1057	69.1057	0.0115	0.0000	69.3932
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0160	0.3110	0.5385	8.0000e-004		1.1700e-003	1.1700e-003		1.1700e-003	1.1700e-003	0.0000	69.1056	69.1056	0.0115	0.0000	69.3931
Total	0.0160	0.3110	0.5385	8.0000e-004		1.1700e-003	1.1700e-003		1.1700e-003	1.1700e-003	0.0000	69.1056	69.1056	0.0115	0.0000	69.3931

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.0070					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.1310	0.2068	3.4000e-004		5.8900e-003	5.8900e-003		5.8900e-003	5.8900e-003	0.0000	29.1922	29.1922	1.5900e-003	0.0000	29.2320
Total	2.0265	0.1310	0.2068	3.4000e-004		5.8900e-003	5.8900e-003		5.8900e-003	5.8900e-003	0.0000	29.1922	29.1922	1.5900e-003	0.0000	29.2320

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.0070					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.2300e-003	0.1212	0.2095	3.4000e-004		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	29.1922	29.1922	1.5900e-003	0.0000	29.2320
Total	2.0132	0.1212	0.2095	3.4000e-004		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	29.1922	29.1922	1.5900e-003	0.0000	29.2320

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1287					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2500e-003	8.4000e-003	0.0133	2.0000e-005		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004	0.0000	1.8724	1.8724	1.0000e-004	0.0000	1.8749
Total	0.1300	8.4000e-003	0.0133	2.0000e-005		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004	0.0000	1.8724	1.8724	1.0000e-004	0.0000	1.8749

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1287					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-004	7.7700e-003	0.0134	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.8724	1.8724	1.0000e-004	0.0000	1.8749
Total	0.1291	7.7700e-003	0.0134	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.8724	1.8724	1.0000e-004	0.0000	1.8749

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**681 E Trimble/Seely, San Jose - Affordable Construction
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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	172.00	Dwelling Unit	1.24	136,000.00	492
Enclosed Parking with Elevator	86.00	Space	0.00	33,405.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2026
Utility Company	San Jose Clean Energy				
CO2 Intensity (lb/MW hr)	178	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SJCE 2020 rate - 178

Land Use - Provided land uses

Construction Phase - Provided affordable construction schedule

Off-road Equipment - Provided affordable construction equip & hours

Off-road Equipment - Provided affordable construction equip & hours

Off-road Equipment - Provided affordable construction equip & hours

Off-road Equipment - Provided affordable construction equip & hours

Off-road Equipment - Provided affordable construction equip & hours

Grading -

Trips and VMT - EMFAC2021 0 trip adjustment, building ext = 200 cement truck round trips

Construction Off-road Equipment Mitigation - BMPs, Tier 4 interim mitigation

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	10.00	131.00
tblConstructionPhase	NumDays	200.00	195.00
tblConstructionPhase	NumDays	4.00	10.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	2.00	10.00
tblConstructionPhase	PhaseEndDate	7/10/2025	10/28/2025
tblConstructionPhase	PhaseEndDate	6/12/2025	5/28/2025
tblConstructionPhase	PhaseEndDate	9/5/2024	8/28/2024
tblConstructionPhase	PhaseEndDate	6/26/2025	10/28/2025
tblConstructionPhase	PhaseEndDate	8/30/2024	8/14/2024
tblConstructionPhase	PhaseStartDate	6/27/2025	4/29/2025
tblConstructionPhase	PhaseStartDate	9/6/2024	8/29/2024
tblConstructionPhase	PhaseStartDate	8/31/2024	8/15/2024
tblConstructionPhase	PhaseStartDate	6/13/2025	10/8/2025
tblConstructionPhase	PhaseStartDate	8/29/2024	8/1/2024
tblLandUse	LandUseSquareFeet	172,000.00	136,000.00
tblLandUse	LandUseSquareFeet	34,400.00	33,405.00
tblLandUse	LotAcreage	4.53	1.24
tblLandUse	LotAcreage	0.77	0.00
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	3.20
tblOffRoadEquipment	UsageHours	6.00	1.60
tblOffRoadEquipment	UsageHours	8.00	1.60
tblOffRoadEquipment	UsageHours	7.00	1.60
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	1.60
tblOffRoadEquipment	UsageHours	8.00	3.20
tblOffRoadEquipment	UsageHours	8.00	2.10
tblProjectCharacteristics	CO2IntensityFactor	807.98	178
tblTripsAndVMT	VendorTripNumber	24.00	0.00
tblTripsAndVMT	WorkerTripNumber	28.00	0.00
tblTripsAndVMT	WorkerTripNumber	138.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0288	0.2794	0.2333	5.5000e-004	1.0600e-003	0.0123	0.0134	1.1000e-004	0.0114	0.0115	0.0000	47.6728	47.6728	0.0149	0.0000	48.0461
2025	1.0674	0.7760	1.0423	1.8300e-003	0.0000	0.0343	0.0343	0.0000	0.0334	0.0334	0.0000	158.0113	158.0113	0.0205	0.0000	158.5245
Maximum	1.0674	0.7760	1.0423	1.8300e-003	1.0600e-003	0.0343	0.0343	1.1000e-004	0.0334	0.0334	0.0000	158.0113	158.0113	0.0205	0.0000	158.5245

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	9.8000e-003	0.1828	0.3276	5.5000e-004	4.8000e-004	1.3900e-003	1.8700e-003	5.0000e-005	1.3900e-003	1.4500e-003	0.0000	47.6727	47.6727	0.0149	0.0000	48.0460
2025	0.9981	0.6581	1.1310	1.8300e-003	0.0000	4.2800e-003	4.2800e-003	0.0000	4.2800e-003	4.2800e-003	0.0000	158.0111	158.0111	0.0205	0.0000	158.5244
Maximum	0.9981	0.6581	1.1310	1.8300e-003	4.8000e-004	4.2800e-003	4.2800e-003	5.0000e-005	4.2800e-003	4.2800e-003	0.0000	158.0111	158.0111	0.0205	0.0000	158.5244

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	8.06	20.32	-14.35	0.00	54.72	87.85	87.11	54.55	87.35	87.25	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-1-2024	10-31-2024	0.1842	0.1250
2	11-1-2024	1-31-2025	0.1829	0.1027
3	2-1-2025	4-30-2025	0.1838	0.1155
4	5-1-2025	7-31-2025	0.8330	0.7740
5	8-1-2025	9-30-2025	0.5175	0.4924
		Highest	0.8330	0.7740

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/1/2024	8/14/2024	5	10	
2	Trenching	Grading	8/15/2024	8/28/2024	5	10	
3	Building Construction	Building Construction	8/29/2024	5/28/2025	5	195	
4	Architectural Coating	Architectural Coating	4/29/2025	10/28/2025	5	131	
5	Paving	Paving	10/8/2025	10/28/2025	5	15	

Acres of Grading (Site Preparation Phase): 2

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 275,400; Residential Outdoor: 91,800; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,004

OffRoad Equipment

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	5	8.00	78	0.48
Paving	Cement and Mortar Mixers	0	0.00	9	0.56
Site Preparation	Bore/Drill Rigs	2	8.00	221	0.50
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Generator Sets	0	0.00	84	0.74
Trenching	Graders	0	0.00	187	0.41
Site Preparation	Graders	1	3.20	187	0.41
Paving	Pavers	1	1.60	130	0.42
Paving	Paving Equipment	1	1.60	132	0.36
Paving	Rollers	1	1.60	80	0.38
Trenching	Excavators	1	4.00	158	0.38
Trenching	Rubber Tired Dozers	0	0.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	0.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Architectural Coating	Aerial Lifts	1	3.70	63	0.31
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	1.60	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	3.20	97	0.37
Building Construction	Welders	1	2.10	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Paving	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0600e-003	0.0000	1.0600e-003	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1100e-003	0.0303	0.0283	1.1000e-004		1.0300e-003	1.0300e-003		9.5000e-004	9.5000e-004	0.0000	10.0734	10.0734	3.2600e-003	0.0000	10.1549
Total	3.1100e-003	0.0303	0.0283	1.1000e-004	1.0600e-003	1.0300e-003	2.0900e-003	1.1000e-004	9.5000e-004	1.0600e-003	0.0000	10.0734	10.0734	3.2600e-003	0.0000	10.1549

Unmitigated Construction Off-Site

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8000e-004	0.0000	4.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0315	0.0626	1.1000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.0734	10.0734	3.2600e-003	0.0000	10.1549
Total	1.9200e-003	0.0315	0.0626	1.1000e-004	4.8000e-004	1.9000e-004	6.7000e-004	5.0000e-005	1.9000e-004	2.4000e-004	0.0000	10.0734	10.0734	3.2600e-003	0.0000	10.1549

Mitigated Construction Off-Site

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.3 Trenching - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8900e-003	0.0180	0.0306	4.0000e-005		8.4000e-004	8.4000e-004		7.7000e-004	7.7000e-004	0.0000	3.8778	3.8778	1.2500e-003	0.0000	3.9092
Total	1.8900e-003	0.0180	0.0306	4.0000e-005	0.0000	8.4000e-004	8.4000e-004	0.0000	7.7000e-004	7.7000e-004	0.0000	3.8778	3.8778	1.2500e-003	0.0000	3.9092

Unmitigated Construction Off-Site

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.6000e-004	0.0193	0.0333	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.8778	3.8778	1.2500e-003	0.0000	3.9092
Total	8.6000e-004	0.0193	0.0333	4.0000e-005	0.0000	7.0000e-005	7.0000e-005	0.0000	7.0000e-005	7.0000e-005	0.0000	3.8778	3.8778	1.2500e-003	0.0000	3.9092

Mitigated Construction Off-Site

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**681 E Trimble/Seely, San Jose - Building 2 Construction
Santa Clara County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	386.00	Dwelling Unit	2.12	407,119.00	1104
Regional Shopping Center	44.42	1000sqft	0.00	44,415.00	0
Enclosed Parking with Elevator	595.00	Space	0.00	231,520.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2027
Utility Company	San Jose Clean Energy				
CO2 Intensity (lb/MWhr)	178	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SJCE 2020 rate - 178

Land Use - Provided land uses

Construction Phase - Provided Building 2 construction schedule

Off-road Equipment - Provided Building 2 construction equip & hours

Off-road Equipment - Provided Building 2 construction equip & hours

Off-road Equipment - Provided Building 2 construction equip & hours

Off-road Equipment - Provided Building 2 construction equip & hours

Off-road Equipment - Provided Building 2 construction equip & hours

Grading -

Trips and VMT - EMFAC2021 0 trip adjustment, building ext = 1,900 cement truck round trips, paving = 113-cy asphalt

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	10.00	217.00
tblConstructionPhase	NumDays	220.00	347.00
tblConstructionPhase	NumDays	6.00	21.00
tblConstructionPhase	NumDays	3.00	21.00
tblConstructionPhase	PhaseEndDate	10/10/2025	10/29/2026
tblConstructionPhase	PhaseEndDate	9/12/2025	3/31/2026
tblConstructionPhase	PhaseEndDate	11/8/2024	11/28/2024
tblConstructionPhase	PhaseEndDate	9/26/2025	11/13/2026
tblConstructionPhase	PhaseEndDate	10/31/2024	10/29/2024
tblConstructionPhase	PhaseStartDate	9/27/2025	12/31/2025
tblConstructionPhase	PhaseStartDate	11/9/2024	11/30/2024
tblConstructionPhase	PhaseStartDate	11/1/2024	10/31/2024
tblConstructionPhase	PhaseStartDate	9/13/2025	10/31/2026
tblConstructionPhase	PhaseStartDate	10/29/2024	10/1/2024
tblLandUse	LandUseSquareFeet	386,000.00	407,119.00
tblLandUse	LandUseSquareFeet	238,000.00	231,520.00
tblLandUse	LotAcreage	10.16	2.12
tblLandUse	LotAcreage	1.02	0.00
tblLandUse	LotAcreage	5.35	0.00
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	6.00	5.50
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	7.80
tblOffRoadEquipment	UsageHours	7.00	5.90
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.50
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	7.00	6.70
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	7.00	1.50
tblOffRoadEquipment	UsageHours	8.00	1.60
tblProjectCharacteristics	CO2IntensityFactor	807.98	178
tblTripsAndVMT	VendorTripNumber	86.00	0.00
tblTripsAndVMT	WorkerTripNumber	78.00	0.00
tblTripsAndVMT	WorkerTripNumber	389.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00

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tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0140	0.1351	0.1394	3.8000e-004	1.0400e-003	5.5600e-003	6.6000e-003	1.1000e-004	5.1200e-003	5.2300e-003	0.0000	33.2289	33.2289	0.0107	0.0000	33.4953
2025	0.0772	0.5984	0.4866	1.1000e-003	0.0000	0.0268	0.0268	0.0000	0.0247	0.0247	0.0000	95.8714	95.8714	0.0297	0.0000	96.6146
2026	3.2332	0.7391	1.0631	1.8100e-003	0.0000	0.0328	0.0328	0.0000	0.0322	0.0322	0.0000	156.3606	156.3606	0.0163	0.0000	156.7685
Maximum	3.2332	0.7391	1.0631	1.8100e-003	1.0400e-003	0.0328	0.0328	1.1000e-004	0.0322	0.0322	0.0000	156.3606	156.3606	0.0297	0.0000	156.7685

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	6.6900e-003	0.1196	0.2246	3.8000e-004	4.7000e-004	7.2000e-004	1.1900e-003	5.0000e-005	7.2000e-004	7.7000e-004	0.0000	33.2289	33.2289	0.0107	0.0000	33.4953

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2025	0.0344	0.3692	0.6579	1.1000e-003	0.0000	2.9200e-003	2.9200e-003	0.0000	2.9200e-003	2.9200e-003	0.0000	95.8713	95.8713	0.0297	0.0000	96.6145
2026	3.1648	0.6537	1.1244	1.8100e-003	0.0000	3.8500e-003	3.8500e-003	0.0000	3.8500e-003	3.8500e-003	0.0000	156.3604	156.3604	0.0163	0.0000	156.7683
Maximum	3.1648	0.6537	1.1244	1.8100e-003	4.7000e-004	3.8500e-003	3.8500e-003	5.0000e-005	3.8500e-003	3.8500e-003	0.0000	156.3604	156.3604	0.0297	0.0000	156.7683

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	3.56	22.42	-18.82	0.00	54.81	88.49	87.96	54.55	87.93	87.87	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2024	12-31-2024	0.1503	0.1263
2	1-1-2025	3-31-2025	0.1621	0.0952
3	4-1-2025	6-30-2025	0.1639	0.0962
4	7-1-2025	9-30-2025	0.1657	0.0973
5	10-1-2025	12-31-2025	0.1782	0.1096
6	1-1-2026	3-31-2026	1.2928	1.1999
7	4-1-2026	6-30-2026	1.1433	1.1170
8	7-1-2026	9-30-2026	1.1559	1.1293
		Highest	1.2928	1.1999

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	10/1/2024	10/29/2024	5	21	
2	Trenching	Grading	10/31/2024	11/28/2024	5	21	
3	Building Construction	Building Construction	11/30/2024	3/31/2026	5	347	
4	Architectural Coating	Architectural Coating	12/31/2025	10/29/2026	5	217	

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5	Paving	Paving	10/31/2026	11/13/2026	5	10
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Acres of Grading (Site Preparation Phase): 1.97

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 824,416; Residential Outdoor: 274,805; Non-Residential Indoor: 66,623; Non-Residential Outdoor: 22,208; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	5	5.50	78	0.48
Paving	Cement and Mortar Mixers	0	0.00	9	0.56
Site Preparation	Bore/Drill Rigs	2	8.00	221	0.50
Building Construction	Cranes	1	7.80	231	0.29
Building Construction	Forklifts	2	5.90	89	0.20
Building Construction	Generator Sets	0	0.00	84	0.74
Trenching	Graders	0	0.00	187	0.41
Site Preparation	Graders	1	1.50	187	0.41
Paving	Pavers	1	2.40	130	0.42
Paving	Paving Equipment	1	2.40	132	0.36
Paving	Rollers	2	2.40	80	0.38
Trenching	Excavators	1	1.90	158	0.38
Trenching	Rubber Tired Dozers	0	0.00	247	0.40
Site Preparation	Scrapers	0	0.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Architectural Coating	Aerial Lifts	1	2.20	63	0.31
Trenching	Tractors/Loaders/Backhoes	2	6.70	97	0.37
Paving	Tractors/Loaders/Backhoes	1	2.40	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	1.50	97	0.37

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Building Construction	Welders	1	1.60	46	0.45
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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Use Cleaner Engines for Construction Equipment
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0400e-003	0.0000	1.0400e-003	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4200e-003	0.0512	0.0507	2.2000e-004		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	19.2469	19.2469	6.2200e-003	0.0000	19.4025
Total	5.4200e-003	0.0512	0.0507	2.2000e-004	1.0400e-003	1.7200e-003	2.7600e-003	1.1000e-004	1.5800e-003	1.6900e-003	0.0000	19.2469	19.2469	6.2200e-003	0.0000	19.4025

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.7000e-004	0.0000	4.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6400e-003	0.0592	0.1185	2.2000e-004		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	19.2469	19.2469	6.2200e-003	0.0000	19.4025
Total	3.6400e-003	0.0592	0.1185	2.2000e-004	4.7000e-004	3.6000e-004	8.3000e-004	5.0000e-005	3.6000e-004	4.1000e-004	0.0000	19.2469	19.2469	6.2200e-003	0.0000	19.4025

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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.3 Trenching - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9800e-003	0.0290	0.0475	7.0000e-005		1.3400e-003	1.3400e-003		1.2300e-003	1.2300e-003	0.0000	5.9521	5.9521	1.9300e-003	0.0000	6.0003
Total	2.9800e-003	0.0290	0.0475	7.0000e-005	0.0000	1.3400e-003	1.3400e-003	0.0000	1.2300e-003	1.2300e-003	0.0000	5.9521	5.9521	1.9300e-003	0.0000	6.0003

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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3800e-003	0.0295	0.0510	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	5.9521	5.9521	1.9300e-003	0.0000	6.0003
Total	1.3800e-003	0.0295	0.0510	7.0000e-005	0.0000	1.1000e-004	1.1000e-004	0.0000	1.1000e-004	1.1000e-004	0.0000	5.9521	5.9521	1.9300e-003	0.0000	6.0003

Mitigated Construction Off-Site

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6100e-003	0.0550	0.0412	9.0000e-005		2.5000e-003	2.5000e-003		2.3000e-003	2.3000e-003	0.0000	8.0299	8.0299	2.5100e-003	0.0000	8.0925
Total	5.6100e-003	0.0550	0.0412	9.0000e-005		2.5000e-003	2.5000e-003		2.3000e-003	2.3000e-003	0.0000	8.0299	8.0299	2.5100e-003	0.0000	8.0925

Unmitigated Construction Off-Site

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6700e-003	0.0309	0.0551	9.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	8.0299	8.0299	2.5100e-003	0.0000	8.0925
Total	1.6700e-003	0.0309	0.0551	9.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	8.0299	8.0299	2.5100e-003	0.0000	8.0925

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0623	0.5957	0.4823	1.1000e-003		0.0266	0.0266		0.0246	0.0246	0.0000	95.2661	95.2661	0.0297	0.0000	96.0083
Total	0.0623	0.5957	0.4823	1.1000e-003		0.0266	0.0266		0.0246	0.0246	0.0000	95.2661	95.2661	0.0297	0.0000	96.0083

Unmitigated Construction Off-Site

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**681 E Trimble/Seely, San Jose - Building 3 Construction
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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	378.00	Dwelling Unit	2.12	414,015.00	1081
Regional Shopping Center	6.65	1000sqft	0.00	6,653.00	0
Enclosed Parking with Elevator	532.00	Space	0.00	193,575.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2028
Utility Company	San Jose Clean Energy				
CO2 Intensity (lb/MWhr)	178	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SJCE 2020 rate = 178

Land Use - Provided land uses

Construction Phase - Provided Building 3 construction schedule

Off-road Equipment - Provided Building 3 construction equip & hours

Off-road Equipment - Provided Building 3 construction equip & hours

Off-road Equipment - Provided Building 3 construction equip & hours

Off-road Equipment - Provided Building 3 construction equip & hours

Off-road Equipment - Provided Building 3 construction equip & hours

Grading -

Trips and VMT - EMFAC2021 0 trip adjustment, building ext = 1,700 cement truck round trips, paving = 113-cy asphalt

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	10.00	171.00
tblConstructionPhase	NumDays	220.00	282.00
tblConstructionPhase	NumDays	6.00	21.00
tblConstructionPhase	NumDays	3.00	21.00
tblConstructionPhase	PhaseEndDate	4/12/2027	11/25/2027
tblConstructionPhase	PhaseEndDate	3/15/2027	6/29/2027
tblConstructionPhase	PhaseEndDate	5/11/2026	5/29/2026
tblConstructionPhase	PhaseEndDate	3/29/2027	12/10/2027
tblConstructionPhase	PhaseEndDate	5/1/2026	4/29/2026
tblConstructionPhase	PhaseStartDate	3/30/2027	4/1/2027
tblConstructionPhase	PhaseStartDate	5/12/2026	5/31/2026
tblConstructionPhase	PhaseStartDate	5/2/2026	5/1/2026
tblConstructionPhase	PhaseStartDate	3/16/2027	11/27/2027
tblConstructionPhase	PhaseStartDate	4/29/2026	4/1/2026
tblLandUse	LandUseSquareFeet	378,000.00	414,015.00
tblLandUse	LandUseSquareFeet	212,800.00	193,575.00
tblLandUse	LotAcreage	9.95	2.12
tblLandUse	LotAcreage	0.15	0.00
tblLandUse	LotAcreage	4.79	0.00
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	7.10
tblOffRoadEquipment	UsageHours	7.00	5.30
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	1.50
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	7.00	6.70
tblOffRoadEquipment	UsageHours	8.00	2.40
tblOffRoadEquipment	UsageHours	7.00	1.50
tblOffRoadEquipment	UsageHours	8.00	1.40
tblProjectCharacteristics	CO2IntensityFactor	807.98	178
tblTripsAndVMT	VendorTripNumber	73.00	0.00
tblTripsAndVMT	WorkerTripNumber	71.00	0.00
tblTripsAndVMT	WorkerTripNumber	356.00	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2026	0.0412	0.3934	0.3545	8.7000e-004	1.0400e-003	0.0169	0.0180	1.1000e-004	0.0156	0.0157	0.0000	76.0833	76.0833	0.0240	0.0000	76.6840
2027	3.1042	0.8596	1.1623	2.0400e-003	0.0000	0.0382	0.0382	0.0000	0.0372	0.0372	0.0000	175.9363	175.9363	0.0222	0.0000	176.4908
Maximum	3.1042	0.8596	1.1623	2.0400e-003	1.0400e-003	0.0382	0.0382	1.1000e-004	0.0372	0.0372	0.0000	175.9363	175.9363	0.0240	0.0000	176.4908

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2026	0.0156	0.2838	0.5181	8.7000e-004	4.7000e-004	2.0000e-003	2.4700e-003	5.0000e-005	2.0000e-003	2.0500e-003	0.0000	76.0832	76.0832	0.0240	0.0000	76.6839
2027	3.0270	0.7284	1.2581	2.0400e-003	0.0000	4.4300e-003	4.4300e-003	0.0000	4.4300e-003	4.4300e-003	0.0000	175.9361	175.9361	0.0222	0.0000	176.4906

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Maximum	3.0270	0.7284	1.2581	2.0400e-003	4.7000e-004	4.4300e-003	4.4300e-003	5.0000e-005	4.4300e-003	4.4300e-003	0.0000	175.9361	175.9361	0.0240	0.0000	176.4906
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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	3.27	19.23	-17.10	0.00	54.81	88.33	87.71	54.55	87.83	87.76	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2026	6-30-2026	0.1328	0.1220
2	7-1-2026	9-30-2026	0.1499	0.0878
3	10-1-2026	12-31-2026	0.1499	0.0878
4	1-1-2027	3-31-2027	0.1466	0.0858
5	4-1-2027	6-30-2027	1.5388	1.4446
6	7-1-2027	9-30-2027	1.4075	1.3737
		Highest	1.5388	1.4446

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2026	4/29/2026	5	21	
2	Trenching	Grading	5/1/2026	5/29/2026	5	21	
3	Building Construction	Building Construction	5/31/2026	6/29/2027	5	282	
4	Architectural Coating	Architectural Coating	4/1/2027	11/25/2027	5	171	
5	Paving	Paving	11/27/2027	12/10/2027	5	10	

Acres of Grading (Site Preparation Phase): 1.97

Acres of Grading (Grading Phase): 0

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Architectural Coating	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	4	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0400e-003	0.0000	1.0400e-003	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2900e-003	0.0488	0.0505	2.2000e-004		1.6200e-003	1.6200e-003		1.4900e-003	1.4900e-003	0.0000	19.2448	19.2448	6.2200e-003	0.0000	19.4004
Total	5.2900e-003	0.0488	0.0505	2.2000e-004	1.0400e-003	1.6200e-003	2.6600e-003	1.1000e-004	1.4900e-003	1.6000e-003	0.0000	19.2448	19.2448	6.2200e-003	0.0000	19.4004

Unmitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.7000e-004	0.0000	4.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6400e-003	0.0592	0.1185	2.2000e-004		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	19.2447	19.2447	6.2200e-003	0.0000	19.4003
Total	3.6400e-003	0.0592	0.1185	2.2000e-004	4.7000e-004	3.6000e-004	8.3000e-004	5.0000e-005	3.6000e-004	4.1000e-004	0.0000	19.2447	19.2447	6.2200e-003	0.0000	19.4003

Mitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.3 Trenching - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7400e-003	0.0265	0.0474	7.0000e-005		1.1000e-003	1.1000e-003		1.0100e-003	1.0100e-003	0.0000	5.9569	5.9569	1.9300e-003	0.0000	6.0051
Total	2.7400e-003	0.0265	0.0474	7.0000e-005	0.0000	1.1000e-003	1.1000e-003	0.0000	1.0100e-003	1.0100e-003	0.0000	5.9569	5.9569	1.9300e-003	0.0000	6.0051

Unmitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3800e-003	0.0295	0.0510	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	5.9569	5.9569	1.9300e-003	0.0000	6.0051
Total	1.3800e-003	0.0295	0.0510	7.0000e-005	0.0000	1.1000e-004	1.1000e-004	0.0000	1.1000e-004	1.1000e-004	0.0000	5.9569	5.9569	1.9300e-003	0.0000	6.0051

Mitigated Construction Off-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0332	0.3181	0.2566	5.8000e-004		0.0142	0.0142		0.0131	0.0131	0.0000	50.8816	50.8816	0.0159	0.0000	51.2786
Total	0.0332	0.3181	0.2566	5.8000e-004		0.0142	0.0142		0.0131	0.0131	0.0000	50.8816	50.8816	0.0159	0.0000	51.2786

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0106	0.1951	0.3486	5.8000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003	0.0000	50.8816	50.8816	0.0159	0.0000	51.2785
Total	0.0106	0.1951	0.3486	5.8000e-004		1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003	0.0000	50.8816	50.8816	0.0159	0.0000	51.2785

Mitigated Construction Off-Site

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

Unmitigated Operational Criteria Air Pollutants				
Unmitigated	ROG	NOX	Total PM10	Total PM2.5
Year	Tons			
Mobile	2.79	1.79	4.18	1.06
Mobile - EV Reduction	-0.11	-0.04	0.00	0.00
Area	7.24	0.13	0.06	0.06
Energy	0.0003	0.002	0.0002	0.0002
Water	0.00	0.00	0.00	0.00
Waste	0.00	0.00	0.00	0.00
Stationary	0.08	0.23	0.01	0.01
Total	10.00	2.11	4.25	1.13
Existing Use Emissions				
Total				
Net Annual Operational Emissions				
Tons/year	10.00	2.11	4.25	1.13
Threshold - Tons/year	10.0	10.0	15.0	10.0
Average Daily Emissions				
Pounds Per Day	54.82	11.59	23.31	6.21
Threshold - lbs/day	54.0	54.0	82.0	54.0

Mitigated Operational Criteria Air Pollutants				
Unmitigated	ROG	NOX	Total PM10	Total PM2.5
Year	Tons			
Mobile	2.79	1.79	4.18	1.06
Mobile - EV Reduction	-0.11	-0.04	0.00	0.00
Area	6.22	0.13	0.06	0.06
Energy	0.0003	0.002	0.0002	0.0002
Water	0.00	0.00	0.00	0.00
Waste	0.00	0.00	0.00	0.00
Stationary	0.08	0.23	0.01	0.01
Total	8.98	2.11	4.25	1.13
Existing Use Emissions				
Total				
Net Annual Operational Emissions				
Tons/year	8.98	2.11	4.25	1.13
Threshold - Tons/year	10.0	10.0	15.0	10.0
Average Daily Emissions				
Pounds Per Day	49.22	11.59	23.31	6.21
Threshold - lbs/day	54.0	54.0	82.0	54.0

Category	CO2e			
	Project	Existing	Project 2030	Existing
Area	18.36			
Energy	1112.46			
Mobile	3888.60			
Stationary	38.40			
Waste	351.99			
Water	121.43			
TOTAL	5531.24	0.00	0.00	0.00
Net GHG Emissions		5531.24		0.00
Service Population	4292			
Per Capita Emissions		1.29		0.00
CA DOF 2021 =	1475 units	2.91 pphh		

Traffic Consultant Trip Gen				CalEEMod Default				
Land Use	Size	Daily Trips	New Trips	Weekday Trip Gen	Weekday	Sat	Sun	
Apartments Mid Rise + Affordable Housing	DU	1321	6045	4099	3.10	5.44	4.91	4.09
					Rev	2.80	2.33	
Condo/Townhouse	DU	154	1109	882	5.73	7.32	8.14	6.28
Residential/Retail Internal Capture Reduction	15%		-165			Rev	6.37	4.91
Location-Based Vehicle Mode Share Reduction	12%		-839					
Project-Specific Trip Reduction	19%		-1169					
		1475	Total	4981				
Regional Shopping Center	KSF	22.197	1100	683	30.77	37.75	46.12	21.1
Residential/Retail Internal Capture Reduction	15%		-165			Rev	37.59	17.20
Location-Based Vehicle Mode Share Reduction	12%		-112					
Retail Pass-By External Trip Reduction			-140					

Trip Generation Estimates for the Seely Avenue Residential Mixed-Use Project (Preferred Alternative)

Land Use	Size	Daily Rate	Daily Trips	AM Peak Hour				PM Peak Hour			
				Pk-Hr Rate	In	Out	Total	Pk-Hr Rate	In	Out	Total
Multifamily Housing (Mid-Rise) ¹	1,143 DU	4.54	5,189	0.37	97	326	423	0.39	272	174	446
Affordable Housing ¹	178 DU	4.81	856	0.36	19	45	64	0.46	48	34	82
Single-Family Attached Housing ¹	154 DU	7.20	1,109	0.48	23	51	74	0.57	50	38	88
Residential & Retail Internal Capture ³			(165)		(3)	(4)	(7)		(10)	(10)	(20)
Location-Based Vehicle Mode Share (12%) ⁴			(839)		(16)	(50)	(66)		(43)	(28)	(71)
Project-Specific Trip Reduction (19%) ⁵			(1,169)		(23)	(70)	(93)		(60)	(40)	(100)
Net Residential Trips:			4,981		97	298	395		257	168	425
Retail ²	20,197 SF	54.45	1,100	2.36	29	19	48	6.59	67	66	133
Residential & Retail Internal Capture (15%) ³			(165)		(4)	(3)	(7)		(10)	(10)	(20)
Location-Based Vehicle Mode Share (12%) ⁴			(112)		(3)	(2)	(5)		(7)	(7)	(14)
Retail Pass-By External Trip Reduction ⁶			(140)		0	0	0		(17)	(17)	(34)
Net Retail Trips:			683		22	14	36		33	32	65
Total Net Project Trips:			5,664		119	312	431		290	200	490

Notes:

- ¹ Trip generation for the residential component of the project based on average rates contained in the *ITE Trip Generation Manual, 11th Edition*, for Multifamily Housing Mid-Rise (Land Use 221), Affordable Housing (Land Use 223), and Single-Family Attached Housing (Land Use 215) located in a General Urban/Suburban setting. Rates are expressed in trips per dwelling unit (DU).
- ² Trip generation for the retail component of the project based on average rates contained in the *ITE Trip Generation Manual, 11th Edition*, for Strip Retail Plaza <40 ksf (Land Use 822) located in a General Urban/Suburban setting. Rates are expressed in trips per 1,000 square feet (SF).
- ³ A 15% residential/retail internal mixed-use trip reduction was applied to the project per the 2014 Santa Clara VTA TIA Guidelines. The 15% reduction was first applied to the smaller generator (retail). The same number of trips were subtracted from the larger generator (residential) to account for both trip ends.
- ⁴ A 12% reduction was applied to the residential and retail components of the project based on the location-based vehicle mode share percentage outputs (Table 6 of the TA Handbook) produced from the San Jose Travel Demand Model for the place type: Suburban with Multifamily Housing.
- ⁵ A 19% trip reduction was applied to the residential component of the project based on the external trip adjustments obtained from the City's VMT Evaluation Tool. This trip reduction reflects the multi-modal infrastructure improvements and TDM measures being proposed by the project to reduce the project VMT impact to a less-than-significant level. It is assumed that every percent reduction in VMT per capita is equivalent to one percent reduction in peak-hour vehicle trips.
- ⁶ The PM peak hour pass-by trip reduction percentage (34% for Shopping Center) was based on the *ITE Trip Generation Handbook (Third Edition)*. There is no AM peak hour pass-by trip reduction. The daily pass-by trip reduction (17%) was calculated based on the average of the AM and PM pass-by trip reduction percentages.

ROG Adjustment for 2028

Santa Clara County

	Population (All)	Population (EV)	Default % EV	ACC Phase II % Requirements	Adjusted EV
1984	616.2979058	0	0%		0
1985	755.7912228	0	0%		0
1986	897.7842611	0	0%		0
1987	975.8820925	0	0%		0
1988	958.0064102	0	0%		0
1989	1215.94779	0	0%		0
1990	1405.826363	0	0%		0
1991	1550.548935	0	0%		0
1992	1384.774538	0	0%		0
1993	1626.259649	0	0%		0
1994	1968.282665	0	0%		0
1995	2592.190195	0	0%		0
1996	2764.147646	0	0%		0
1997	3834.466006	0	0%		0
1998	4513.568807	0.477449283	0%		0.477449
1999	5817.29552	1.470936913	0%		1.470937
2000	7768.49665	0.505797884	0%		0.505798
2001	8566.455644	0.26724024	0%		0.26724
2002	8724.869025	2.237125921	0%		2.237126
2003	9448.259717	0.691452042	0%		0.691452
2004	11148.5446	0	0%		0
2005	12824.80687	0.190877201	0%		0.190877
2006	15416.68275	0	0%		0
2007	17798.41605	0.245271644	0%		0.245272
2008	17382.70983	14.7321934	0%		14.73219
2009	13261.85247	0	0%		0
2010	18019.54874	12.83116377	0%		12.83116
2011	22220.78457	210.4043367	1%		210.4043
2012	30615.97579	507.6455945	2%		507.6456
2013	40526.76488	1313.921774	3%		1313.922
2014	44617.83507	1539.539372	3%		1539.539
2015	57438.15317	1848.66837	3%		1848.668
2016	62608.66962	3410.112095	5%		3410.112
2017	74869.56138	6914.009853	9%		6914.01
2018	81807.82219	13278.07908	16%		13278.08
2019	67210.64003	9540.046475	14%		9540.046
2020	54385.87829	4140.30448	8%		4140.304
2021	66443.92468	5894.429686	9%		5894.43
2022	78332.32122	7777.38304	10%		7777.383
2023	80250.79763	8400.194845	10%		8400.195
2024	81277.89824	9090.572879	11%		9090.573
2025	82385.14496	9601.38817	12%		9601.388
2026	82542.20952	8773.385641	11%	0.35	28889.77
2027	81992.83399	9087.428906	11%	0.43	35256.92
2028	71731.00912	8253.711282	12%	0.51	36582.81

Sum	1,334,496	109,615	8%		184,230
					14%
					6%

7% Greater EV Penetration

EMFAC2021 Emissions		
ROG	67% LDA	4%
NOx	32% LDA	2%

Table with 20 columns: County, Year, Agency, Fuel Type, and 17 numerical columns representing various metrics. The table lists data for Santa Clara County from 2010 to 2014 across various agencies and fuel types.

**Santa Clara County
Consumer ROG Factor**

Year	Emissions SC County Emissions	County Population	County Building Square footage	ROG Consumer Factor
2010	11.06 tpd	1781642		
2020	13.71 tpd	1,936,259		
2022	14.022 interpolated	1,970,020	1,554,944,100 sf from HAZUS	1.80354E-05
2030	15.27 tpd	2,105,066	1,661,536,072 sf interpolated	1.83806E-05 lbs/ft/day

0.156

from CalEEMod

Appendix D3 - Consumer Products Use

Data Grouping	Total VOC (tons/day)	Population*	Total VOC (lbs/person-day)	Total Building Area (Square Feet)
2003 Survey Commercial (45.3% of 2003 Land Use Total)	47.4			
2003 Survey Residential (48.0% of 2003 Land Use Total)	50.3			
2003 Survey Industrial (6.7% of 2003 Land Use Total)	7.0			
2003 Survey Land Use Total (42.3% of Grand Total)	104.7			
2003 Survey CARB Data Total	186.3	34,650,690	1.08E-02	8,600,000,000 from South Coast AQMD draft staff report for consumer products rule
2006 Survey CARB Data Total	61.1	36,457,549	3.35E-03	
Grand Total	247.3		1.41E-02	22,435,267,518 from HAZUS-MH, data from late 1990's - early 2000's

*Data from American Communities Survey from the US Census

	Total VOC (lbs/building sq. ft.)	
2008 ARB Emission Inventory (Consumer Products)	239.6	
South Coast AQMD Rule 1143 reduction to 300 g/l (as of 1/1/11) if 25 g/L gets upheld by the courts	11.3	1.98E-05 South Coast AQMD
		2.14E-05 Statewide Factor
		2.04E-05

Table 1: E-4 Population Estimates for Counties and State 2011-2020 with 2010 Benchmark

COUNTY	Historical	2020 censu	Projection	
	4/1/2010	1/1/2020	2022	2030
Alameda	1,510,271	1,682,353		
Alpine	1,175	1,204		
Amador	38,091	40,474		
Butte	220,000	211,632		
Calaveras	45,578	45,292		
Colusa	21,419	21,839		
Contra Cos	1,049,025	1,165,927		
Del Norte	28,610	27,743		
El Dorado	181,058	191,185		
Fresno	930,450	1,008,654		
Glenn	28,122	28,917		
Humboldt	134,623	136,463		
Imperial	174,528	179,702		
Inyo	18,546	19,016		
Kern	839,631	909,235		
Kings	152,982	152,486		
Lake	64,665	68,163		
Lassen	34,895	32,730		
Los Angele	9,818,605	#####		
Madera	150,865	156,255		
Marin	252,409	262,321		
Mariposa	18,251	17,131		
Mendocinc	87,841	91,601		
Merced	255,793	281,202		
Modoc	9,686	8,700		
Mono	14,202	13,195		
Monterey	415,057	439,035		
Napa	136,484	138,019		
Nevada	98,764	102,241		
Orange	3,010,232	3,186,989		
Placer	348,432	404,739		
Plumas	20,007	19,790		
Riverside	2,189,641	2,418,185		
Sacramenti	1,418,788	1,585,055		
San Benito	55,269	64,209		
San Bernar	2,035,210	2,181,654		
San Diego	3,095,313	3,298,634		
San Francis	805,235	873,965		
San Joaquir	685,306	779,233		
San Luis Ot	269,637	282,424		
San Mateo	718,451	764,442		800006
Santa Barb	423,895	448,229		
Santa Clara	1,781,642	1,936,259	1970020	2105066
Santa Cruz	262,382	270,861		

16,881

Shasta	177,223	182,155
Sierra	3,240	3,236
Siskiyou	44,900	44,076
Solano	413,344	453,491
Sonoma	483,878	488,863
Stanislaus	514,453	552,878
Sutter	94,737	99,633
Tehama	63,463	65,829
Trinity	13,786	16,112
Tulare	442,179	473,117
Tuolumne	55,365	55,620
Ventura	823,318	843,843
Yolo	200,849	216,403
Yuba	72,155	81,575
State Total	#####	#####

Seely Ave (681 E Trimble), San Jose - Operation Gen - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

**Seely Ave (681 E Trimble), San Jose - Operation Gen
Santa Clara County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	348.00	Space	0.00	70,222.00	0
Enclosed Parking with Elevator	1,772.00	Space	0.00	576,518.00	0
City Park	2.50	Acre	0.00	108,900.00	0
Apartments Mid Rise	1,321.00	Dwelling Unit	22.20	1,368,958.00	3778
Condo/Townhouse	154.00	Dwelling Unit	0.00	301,313.00	440
Regional Shopping Center	20.20	1000sqft	0.00	20,197.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2028
Utility Company	San Jose Clean Energy				
CO2 Intensity (lb/MWhr)	178	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SJCE 2020 rate = 178

Land Use - Provided land uses

Construction Phase - Operational run, no construction

Off-road Equipment - Operational run, no construction

Grading -

Vehicle Trips - Provided trip gen with reduction adjustmnets, used traffic provided passby adjustments for retail

Vehicle Emission Factors - EMFAC2021 vehcile emissions factors Santa Clara Co 2028

Seely Ave (681 E Trimble), San Jose - Operation Gen - Santa Clara County, Annual

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Woodstoves - No fireplaces

Consumer Products - Santa Clara County Consumer ROG Factor - via CARB Emissions Inventory, HAZUS, CA DOF

Energy Use - San Jose Natural Gas Ban effective dec 2021, convert natural gas to electricity for residential, retail could still use natural gas

Water And Wastewater - Wastewater treatment plant 100% aerobic, no septic tanks or lagoons

Area Mitigation - Operational - For residential and retail, at least 80% exterior and 90% interior paints have to be super-compliant VOC = 30g/L exterior and 10g/L interior

Fleet Mix - EMFAC2021 fleet mix Santa Clara Co 2028

Stationary Sources - Emergency Generators and Fire Pumps - one 500-kW 670-HP standby diesel generator for well 150 hr/year

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	30
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	10
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	30
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	10
tblConstructionPhase	NumDays	10.00	1.00
tblConsumerProducts	ROG_EF	2.14E-05	1.84E-05
tblEnergyUse	NT24E	3,054.10	3,978.74
tblEnergyUse	NT24E	3,795.01	4,719.65
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	NT24NG	3,155.00	0.00
tblEnergyUse	T24E	70.89	1,602.68
tblEnergyUse	T24E	52.36	4,186.02
tblEnergyUse	T24NG	5,226.68	0.00
tblEnergyUse	T24NG	14,104.62	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceDayYear	11.14	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceHourDay	3.50	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	FireplaceWoodMass	228.80	0.00

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tblFireplaces	NumberGas	198.15	0.00
tblFireplaces	NumberGas	23.10	0.00
tblFireplaces	NumberNoFireplace	52.84	0.00
tblFireplaces	NumberNoFireplace	6.16	0.00
tblFireplaces	NumberWood	224.57	0.00
tblFireplaces	NumberWood	26.18	0.00
tblFleetMix	HHD	6.1360e-003	7.7180e-003
tblFleetMix	HHD	6.1360e-003	7.7180e-003
tblFleetMix	HHD	6.1360e-003	7.7180e-003
tblFleetMix	HHD	6.1360e-003	7.7180e-003
tblFleetMix	HHD	6.1360e-003	7.7180e-003
tblFleetMix	HHD	6.1360e-003	7.7180e-003
tblFleetMix	LDA	0.58	0.52
tblFleetMix	LDA	0.58	0.52
tblFleetMix	LDA	0.58	0.52
tblFleetMix	LDA	0.58	0.52
tblFleetMix	LDA	0.58	0.52
tblFleetMix	LDA	0.58	0.52
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT2	0.18	0.24
tblFleetMix	LDT2	0.18	0.24
tblFleetMix	LDT2	0.18	0.24
tblFleetMix	LDT2	0.18	0.24
tblFleetMix	LDT2	0.18	0.24

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tblFleetMix	LDT2	0.18	0.24
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	5.3040e-003	6.0050e-003
tblFleetMix	LHD2	5.3040e-003	6.0050e-003
tblFleetMix	LHD2	5.3040e-003	6.0050e-003
tblFleetMix	LHD2	5.3040e-003	6.0050e-003
tblFleetMix	LHD2	5.3040e-003	6.0050e-003
tblFleetMix	LHD2	5.3040e-003	6.0050e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.11	0.13
tblFleetMix	MDV	0.11	0.13
tblFleetMix	MDV	0.11	0.13
tblFleetMix	MDV	0.11	0.13
tblFleetMix	MDV	0.11	0.13
tblFleetMix	MH	2.5850e-003	2.3780e-003
tblFleetMix	MH	2.5850e-003	2.3780e-003
tblFleetMix	MH	2.5850e-003	2.3780e-003
tblFleetMix	MH	2.5850e-003	2.3780e-003

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tblFleetMix	MH	2.5850e-003	2.3780e-003
tblFleetMix	MH	2.5850e-003	2.3780e-003
tblFleetMix	MHD	8.1880e-003	9.5780e-003
tblFleetMix	MHD	8.1880e-003	9.5780e-003
tblFleetMix	MHD	8.1880e-003	9.5780e-003
tblFleetMix	MHD	8.1880e-003	9.5780e-003
tblFleetMix	MHD	8.1880e-003	9.5780e-003
tblFleetMix	MHD	8.1880e-003	9.5780e-003
tblFleetMix	OBUS	8.6800e-004	1.0640e-003
tblFleetMix	OBUS	8.6800e-004	1.0640e-003
tblFleetMix	OBUS	8.6800e-004	1.0640e-003
tblFleetMix	OBUS	8.6800e-004	1.0640e-003
tblFleetMix	OBUS	8.6800e-004	1.0640e-003
tblFleetMix	OBUS	8.6800e-004	1.0640e-003
tblFleetMix	SBUS	8.6200e-004	6.8400e-004
tblFleetMix	SBUS	8.6200e-004	6.8400e-004
tblFleetMix	SBUS	8.6200e-004	6.8400e-004
tblFleetMix	SBUS	8.6200e-004	6.8400e-004
tblFleetMix	SBUS	8.6200e-004	6.8400e-004
tblFleetMix	SBUS	8.6200e-004	6.8400e-004
tblFleetMix	UBUS	3.4900e-004	4.0300e-004
tblFleetMix	UBUS	3.4900e-004	4.0300e-004
tblFleetMix	UBUS	3.4900e-004	4.0300e-004
tblFleetMix	UBUS	3.4900e-004	4.0300e-004
tblFleetMix	UBUS	3.4900e-004	4.0300e-004
tblLandUse	LandUseSquareFeet	139,200.00	70,222.00
tblLandUse	LandUseSquareFeet	708,800.00	576,518.00
tblLandUse	LandUseSquareFeet	1,321,000.00	1,368,958.00

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tblLandUse	LandUseSquareFeet	154,000.00	301,313.00
tblLandUse	LandUseSquareFeet	20,200.00	20,197.00
tblLandUse	LotAcreage	3.13	0.00
tblLandUse	LotAcreage	15.95	0.00
tblLandUse	LotAcreage	2.50	0.00
tblLandUse	LotAcreage	34.76	22.20
tblLandUse	LotAcreage	9.63	0.00
tblLandUse	LotAcreage	0.46	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	807.98	178
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	670.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	150.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleEF	HHD	0.02	0.21
tblVehicleEF	HHD	0.05	0.10
tblVehicleEF	HHD	6.31	5.09
tblVehicleEF	HHD	0.41	0.68
tblVehicleEF	HHD	6.3790e-003	8.1800e-004
tblVehicleEF	HHD	972.81	757.82
tblVehicleEF	HHD	1,295.90	1,479.56
tblVehicleEF	HHD	0.05	9.9270e-003
tblVehicleEF	HHD	0.15	0.12
tblVehicleEF	HHD	0.21	0.24
tblVehicleEF	HHD	3.0000e-006	6.0000e-006

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	HHD	5.26	3.62
tblVehicleEF	HHD	2.59	1.57
tblVehicleEF	HHD	2.32	2.71
tblVehicleEF	HHD	2.2800e-003	1.8640e-003
tblVehicleEF	HHD	0.06	0.08
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	2.1810e-003	1.7760e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8990e-003	8.7850e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	1.0000e-006	5.5000e-005
tblVehicleEF	HHD	5.9000e-005	1.8000e-005
tblVehicleEF	HHD	0.42	0.32
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	2.5000e-005	1.5700e-004
tblVehicleEF	HHD	2.0000e-006	0.00
tblVehicleEF	HHD	9.0490e-003	6.5680e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.0000e-006	5.5000e-005
tblVehicleEF	HHD	5.9000e-005	1.8000e-005
tblVehicleEF	HHD	0.49	0.56
tblVehicleEF	HHD	1.0000e-006	0.00
tblVehicleEF	HHD	0.07	0.12
tblVehicleEF	HHD	2.5000e-005	1.5700e-004
tblVehicleEF	HHD	3.0000e-006	0.00

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tblVehicleEF	LDA	1.1280e-003	1.4250e-003
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	0.43	0.52
tblVehicleEF	LDA	1.80	2.29
tblVehicleEF	LDA	208.82	221.35
tblVehicleEF	LDA	44.22	57.20
tblVehicleEF	LDA	3.3260e-003	3.3730e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.13	0.19
tblVehicleEF	LDA	0.04	7.0970e-003
tblVehicleEF	LDA	1.0460e-003	9.5500e-004
tblVehicleEF	LDA	1.4250e-003	1.6440e-003
tblVehicleEF	LDA	0.02	2.4840e-003
tblVehicleEF	LDA	9.6300e-004	8.7800e-004
tblVehicleEF	LDA	1.3100e-003	1.5110e-003
tblVehicleEF	LDA	0.03	0.24
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	3.9220e-003	5.1050e-003
tblVehicleEF	LDA	0.02	0.18
tblVehicleEF	LDA	0.14	0.22
tblVehicleEF	LDA	2.0660e-003	2.1880e-003
tblVehicleEF	LDA	4.3800e-004	5.6600e-004
tblVehicleEF	LDA	0.03	0.24
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.03	0.00
tblVehicleEF	LDA	5.6980e-003	7.4410e-003
tblVehicleEF	LDA	0.02	0.18

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tblVehicleEF	LDA	0.15	0.24
tblVehicleEF	LDT1	2.1200e-003	4.0520e-003
tblVehicleEF	LDT1	0.04	0.08
tblVehicleEF	LDT1	0.61	1.04
tblVehicleEF	LDT1	1.93	3.92
tblVehicleEF	LDT1	251.94	301.13
tblVehicleEF	LDT1	53.96	78.42
tblVehicleEF	LDT1	4.2390e-003	6.8290e-003
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.04	0.08
tblVehicleEF	LDT1	0.17	0.30
tblVehicleEF	LDT1	0.04	9.1820e-003
tblVehicleEF	LDT1	1.2270e-003	1.4650e-003
tblVehicleEF	LDT1	1.6610e-003	2.3390e-003
tblVehicleEF	LDT1	0.02	3.2140e-003
tblVehicleEF	LDT1	1.1280e-003	1.3470e-003
tblVehicleEF	LDT1	1.5280e-003	2.1510e-003
tblVehicleEF	LDT1	0.05	0.50
tblVehicleEF	LDT1	0.11	0.13
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	8.5090e-003	0.02
tblVehicleEF	LDT1	0.06	0.39
tblVehicleEF	LDT1	0.18	0.39
tblVehicleEF	LDT1	2.4930e-003	2.9770e-003
tblVehicleEF	LDT1	5.3400e-004	7.7500e-004
tblVehicleEF	LDT1	0.05	0.50
tblVehicleEF	LDT1	0.11	0.13
tblVehicleEF	LDT1	0.05	0.00
tblVehicleEF	LDT1	0.01	0.03

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	LDT1	0.06	0.39
tblVehicleEF	LDT1	0.20	0.43
tblVehicleEF	LDT2	2.0300e-003	2.0990e-003
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.60	0.68
tblVehicleEF	LDT2	2.37	2.95
tblVehicleEF	LDT2	263.74	305.02
tblVehicleEF	LDT2	57.01	77.91
tblVehicleEF	LDT2	4.4300e-003	4.8560e-003
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.19	0.27
tblVehicleEF	LDT2	0.04	8.8480e-003
tblVehicleEF	LDT2	1.1330e-003	1.1160e-003
tblVehicleEF	LDT2	1.4830e-003	1.8360e-003
tblVehicleEF	LDT2	0.02	3.0970e-003
tblVehicleEF	LDT2	1.0430e-003	1.0270e-003
tblVehicleEF	LDT2	1.3630e-003	1.6880e-003
tblVehicleEF	LDT2	0.05	0.27
tblVehicleEF	LDT2	0.10	0.07
tblVehicleEF	LDT2	0.05	0.00
tblVehicleEF	LDT2	7.8330e-003	7.8650e-003
tblVehicleEF	LDT2	0.06	0.20
tblVehicleEF	LDT2	0.21	0.30
tblVehicleEF	LDT2	2.6090e-003	3.0150e-003
tblVehicleEF	LDT2	5.6400e-004	7.7000e-004
tblVehicleEF	LDT2	0.05	0.27
tblVehicleEF	LDT2	0.10	0.07
tblVehicleEF	LDT2	0.05	0.00

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tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.20
tblVehicleEF	LDT2	0.23	0.32
tblVehicleEF	LHD1	4.3880e-003	4.6810e-003
tblVehicleEF	LHD1	5.9280e-003	5.1820e-003
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	0.18	0.19
tblVehicleEF	LHD1	0.54	0.66
tblVehicleEF	LHD1	0.94	2.14
tblVehicleEF	LHD1	8.45	8.17
tblVehicleEF	LHD1	721.39	709.22
tblVehicleEF	LHD1	10.54	16.72
tblVehicleEF	LHD1	7.3500e-004	6.1200e-004
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.39	0.40
tblVehicleEF	LHD1	0.25	0.36
tblVehicleEF	LHD1	8.9600e-004	6.8100e-004
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	9.8700e-003	9.3930e-003
tblVehicleEF	LHD1	7.7360e-003	0.01
tblVehicleEF	LHD1	2.2100e-004	1.6100e-004
tblVehicleEF	LHD1	8.5700e-004	6.5200e-004
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.4680e-003	2.3480e-003
tblVehicleEF	LHD1	7.3560e-003	0.01
tblVehicleEF	LHD1	2.0300e-004	1.4800e-004
tblVehicleEF	LHD1	1.5610e-003	0.10

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tblVehicleEF	LHD1	0.06	0.02
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	8.3900e-004	0.00
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.18	0.15
tblVehicleEF	LHD1	0.05	0.09
tblVehicleEF	LHD1	8.2000e-005	8.0000e-005
tblVehicleEF	LHD1	7.0370e-003	6.9230e-003
tblVehicleEF	LHD1	1.0400e-004	1.6500e-004
tblVehicleEF	LHD1	1.5610e-003	0.10
tblVehicleEF	LHD1	0.06	0.02
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	8.3900e-004	0.00
tblVehicleEF	LHD1	0.09	0.07
tblVehicleEF	LHD1	0.18	0.15
tblVehicleEF	LHD1	0.06	0.10
tblVehicleEF	LHD2	2.6510e-003	2.6860e-003
tblVehicleEF	LHD2	5.6110e-003	5.0940e-003
tblVehicleEF	LHD2	5.5730e-003	9.7200e-003
tblVehicleEF	LHD2	0.13	0.14
tblVehicleEF	LHD2	0.51	0.43
tblVehicleEF	LHD2	0.51	1.14
tblVehicleEF	LHD2	13.28	13.47
tblVehicleEF	LHD2	700.57	756.59
tblVehicleEF	LHD2	6.75	8.92
tblVehicleEF	LHD2	1.6910e-003	1.6800e-003
tblVehicleEF	LHD2	0.06	0.08
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	0.08	0.08

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tblVehicleEF	LHD2	0.48	0.60
tblVehicleEF	LHD2	0.14	0.20
tblVehicleEF	LHD2	1.4880e-003	1.4360e-003
tblVehicleEF	LHD2	0.09	0.09
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.1100e-004	6.7000e-005
tblVehicleEF	LHD2	1.4230e-003	1.3730e-003
tblVehicleEF	LHD2	0.04	0.03
tblVehicleEF	LHD2	2.7060e-003	2.6550e-003
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.0200e-004	6.2000e-005
tblVehicleEF	LHD2	7.2700e-004	0.06
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.0900e-004	0.00
tblVehicleEF	LHD2	0.10	0.09
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.03	0.05
tblVehicleEF	LHD2	1.2700e-004	1.2900e-004
tblVehicleEF	LHD2	6.7590e-003	7.2820e-003
tblVehicleEF	LHD2	6.7000e-005	8.8000e-005
tblVehicleEF	LHD2	7.2700e-004	0.06
tblVehicleEF	LHD2	0.03	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.0900e-004	0.00
tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.03	0.05

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tblVehicleEF	MCY	0.32	0.15
tblVehicleEF	MCY	0.25	0.16
tblVehicleEF	MCY	17.85	11.46
tblVehicleEF	MCY	9.16	7.88
tblVehicleEF	MCY	209.84	186.14
tblVehicleEF	MCY	59.66	44.44
tblVehicleEF	MCY	0.07	0.04
tblVehicleEF	MCY	0.02	6.8250e-003
tblVehicleEF	MCY	1.14	0.53
tblVehicleEF	MCY	0.27	0.11
tblVehicleEF	MCY	0.01	0.01
tblVehicleEF	MCY	2.1060e-003	1.9750e-003
tblVehicleEF	MCY	2.9000e-003	3.4510e-003
tblVehicleEF	MCY	5.0400e-003	4.2000e-003
tblVehicleEF	MCY	1.9650e-003	1.8440e-003
tblVehicleEF	MCY	2.7160e-003	3.2340e-003
tblVehicleEF	MCY	0.89	3.81
tblVehicleEF	MCY	0.64	3.56
tblVehicleEF	MCY	0.48	0.00
tblVehicleEF	MCY	2.14	0.93
tblVehicleEF	MCY	0.48	3.79
tblVehicleEF	MCY	1.89	1.20
tblVehicleEF	MCY	2.0770e-003	1.8400e-003
tblVehicleEF	MCY	5.9000e-004	4.3900e-004
tblVehicleEF	MCY	0.89	0.08
tblVehicleEF	MCY	0.64	3.56
tblVehicleEF	MCY	0.48	0.00
tblVehicleEF	MCY	2.68	1.14
tblVehicleEF	MCY	0.48	3.79

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tblVehicleEF	MCY	2.06	1.30
tblVehicleEF	MDV	2.1400e-003	2.4430e-003
tblVehicleEF	MDV	0.05	0.07
tblVehicleEF	MDV	0.60	0.72
tblVehicleEF	MDV	2.45	3.04
tblVehicleEF	MDV	317.99	364.89
tblVehicleEF	MDV	67.38	92.49
tblVehicleEF	MDV	5.7730e-003	6.0270e-003
tblVehicleEF	MDV	0.02	0.03
tblVehicleEF	MDV	0.04	0.06
tblVehicleEF	MDV	0.20	0.30
tblVehicleEF	MDV	0.04	8.9170e-003
tblVehicleEF	MDV	1.1580e-003	1.1030e-003
tblVehicleEF	MDV	1.5000e-003	1.7910e-003
tblVehicleEF	MDV	0.02	3.1210e-003
tblVehicleEF	MDV	1.0670e-003	1.0160e-003
tblVehicleEF	MDV	1.3790e-003	1.6470e-003
tblVehicleEF	MDV	0.06	0.30
tblVehicleEF	MDV	0.11	0.08
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	8.4840e-003	9.7220e-003
tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.23	0.35
tblVehicleEF	MDV	3.1420e-003	3.6050e-003
tblVehicleEF	MDV	6.6700e-004	9.1400e-004
tblVehicleEF	MDV	0.06	0.30
tblVehicleEF	MDV	0.11	0.08
tblVehicleEF	MDV	0.06	0.00
tblVehicleEF	MDV	0.01	0.01

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tblVehicleEF	MDV	0.06	0.23
tblVehicleEF	MDV	0.26	0.38
tblVehicleEF	MH	6.2680e-003	7.8580e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.49	0.64
tblVehicleEF	MH	1.74	2.08
tblVehicleEF	MH	1,392.93	1,664.51
tblVehicleEF	MH	16.29	20.83
tblVehicleEF	MH	0.05	0.07
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	1.13	1.36
tblVehicleEF	MH	0.24	0.30
tblVehicleEF	MH	0.13	0.04
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	2.2600e-004	2.5500e-004
tblVehicleEF	MH	0.06	0.02
tblVehicleEF	MH	3.2930e-003	3.3260e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	2.0700e-004	2.3500e-004
tblVehicleEF	MH	0.43	24.71
tblVehicleEF	MH	0.04	6.12
tblVehicleEF	MH	0.16	0.00
tblVehicleEF	MH	0.05	0.06
tblVehicleEF	MH	8.4430e-003	0.15
tblVehicleEF	MH	0.08	0.10
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	1.6100e-004	2.0600e-004
tblVehicleEF	MH	0.43	24.71

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tblVehicleEF	MH	0.04	6.12
tblVehicleEF	MH	0.16	0.00
tblVehicleEF	MH	0.06	0.08
tblVehicleEF	MH	8.4430e-003	0.15
tblVehicleEF	MH	0.09	0.11
tblVehicleEF	MHD	3.7420e-003	0.02
tblVehicleEF	MHD	1.1630e-003	9.5580e-003
tblVehicleEF	MHD	8.4440e-003	7.2180e-003
tblVehicleEF	MHD	0.40	0.65
tblVehicleEF	MHD	0.17	0.20
tblVehicleEF	MHD	0.91	0.82
tblVehicleEF	MHD	67.24	151.31
tblVehicleEF	MHD	1,020.03	1,148.11
tblVehicleEF	MHD	8.65	7.36
tblVehicleEF	MHD	9.7020e-003	0.02
tblVehicleEF	MHD	0.13	0.15
tblVehicleEF	MHD	7.5160e-003	5.2520e-003
tblVehicleEF	MHD	0.36	0.71
tblVehicleEF	MHD	1.44	0.73
tblVehicleEF	MHD	1.70	1.33
tblVehicleEF	MHD	2.1200e-004	9.7300e-004
tblVehicleEF	MHD	0.13	0.04
tblVehicleEF	MHD	7.0380e-003	7.1910e-003
tblVehicleEF	MHD	1.1100e-004	8.9000e-005
tblVehicleEF	MHD	2.0300e-004	9.3000e-004
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	6.7260e-003	6.8720e-003
tblVehicleEF	MHD	1.0200e-004	8.2000e-005
tblVehicleEF	MHD	3.0500e-004	0.02

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tblVehicleEF	MHD	0.01	4.2240e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.7100e-004	0.00
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	6.3800e-004	1.3970e-003
tblVehicleEF	MHD	9.7310e-003	0.01
tblVehicleEF	MHD	8.6000e-005	7.3000e-005
tblVehicleEF	MHD	3.0500e-004	0.02
tblVehicleEF	MHD	0.01	4.2240e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.7100e-004	0.00
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	0.05	0.04
tblVehicleEF	OBUS	7.0850e-003	7.5620e-003
tblVehicleEF	OBUS	2.5530e-003	0.01
tblVehicleEF	OBUS	0.02	0.01
tblVehicleEF	OBUS	0.63	0.55
tblVehicleEF	OBUS	0.30	0.34
tblVehicleEF	OBUS	1.65	1.62
tblVehicleEF	OBUS	96.94	89.66
tblVehicleEF	OBUS	1,242.38	1,295.86
tblVehicleEF	OBUS	13.93	13.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.12	0.15
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.42	0.35

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tblVehicleEF	OBUS	1.44	0.87
tblVehicleEF	OBUS	1.12	0.98
tblVehicleEF	OBUS	1.3800e-004	3.5500e-004
tblVehicleEF	OBUS	0.13	0.05
tblVehicleEF	OBUS	7.6840e-003	0.01
tblVehicleEF	OBUS	1.5400e-004	1.2400e-004
tblVehicleEF	OBUS	1.3200e-004	3.4000e-004
tblVehicleEF	OBUS	0.06	0.02
tblVehicleEF	OBUS	7.3370e-003	0.01
tblVehicleEF	OBUS	1.4100e-004	1.1400e-004
tblVehicleEF	OBUS	1.0770e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.04
tblVehicleEF	OBUS	4.8800e-004	0.00
tblVehicleEF	OBUS	0.02	0.04
tblVehicleEF	OBUS	0.04	0.08
tblVehicleEF	OBUS	0.08	0.08
tblVehicleEF	OBUS	9.2000e-004	8.4600e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	1.3800e-004	1.2900e-004
tblVehicleEF	OBUS	1.0770e-003	0.07
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.06	0.05
tblVehicleEF	OBUS	4.8800e-004	0.00
tblVehicleEF	OBUS	0.02	0.05
tblVehicleEF	OBUS	0.04	0.08
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	SBUS	0.06	0.08
tblVehicleEF	SBUS	4.8620e-003	0.09

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tblVehicleEF	SBUS	5.7680e-003	5.1390e-003
tblVehicleEF	SBUS	2.69	1.79
tblVehicleEF	SBUS	0.40	0.78
tblVehicleEF	SBUS	0.80	0.68
tblVehicleEF	SBUS	341.71	186.34
tblVehicleEF	SBUS	998.71	980.42
tblVehicleEF	SBUS	4.70	3.91
tblVehicleEF	SBUS	0.05	0.02
tblVehicleEF	SBUS	0.12	0.12
tblVehicleEF	SBUS	5.8520e-003	4.6870e-003
tblVehicleEF	SBUS	3.00	1.18
tblVehicleEF	SBUS	3.65	1.92
tblVehicleEF	SBUS	1.06	0.51
tblVehicleEF	SBUS	2.5420e-003	9.2900e-004
tblVehicleEF	SBUS	0.74	0.04
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	6.0000e-005	4.4000e-005
tblVehicleEF	SBUS	2.4320e-003	8.8800e-004
tblVehicleEF	SBUS	0.32	0.02
tblVehicleEF	SBUS	2.6870e-003	2.6230e-003
tblVehicleEF	SBUS	0.02	9.6810e-003
tblVehicleEF	SBUS	5.6000e-005	4.1000e-005
tblVehicleEF	SBUS	7.2600e-004	0.04
tblVehicleEF	SBUS	6.9730e-003	8.5400e-003
tblVehicleEF	SBUS	0.30	0.19
tblVehicleEF	SBUS	3.4300e-004	0.00
tblVehicleEF	SBUS	0.07	0.05
tblVehicleEF	SBUS	0.01	0.02

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tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	3.2570e-003	1.6860e-003
tblVehicleEF	SBUS	9.5500e-003	9.1030e-003
tblVehicleEF	SBUS	4.7000e-005	3.9000e-005
tblVehicleEF	SBUS	7.2600e-004	0.04
tblVehicleEF	SBUS	6.9730e-003	8.5400e-003
tblVehicleEF	SBUS	0.43	0.32
tblVehicleEF	SBUS	3.4300e-004	0.00
tblVehicleEF	SBUS	0.08	0.14
tblVehicleEF	SBUS	0.01	0.02
tblVehicleEF	SBUS	0.04	0.03
tblVehicleEF	UBUS	1.74	0.53
tblVehicleEF	UBUS	1.9830e-003	2.4480e-003
tblVehicleEF	UBUS	13.17	6.31
tblVehicleEF	UBUS	0.14	0.55
tblVehicleEF	UBUS	1,653.79	1,056.23
tblVehicleEF	UBUS	1.40	3.05
tblVehicleEF	UBUS	0.28	0.16
tblVehicleEF	UBUS	1.1970e-003	4.6420e-003
tblVehicleEF	UBUS	0.71	0.29
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.07	0.13
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	5.1720e-003	5.5340e-003
tblVehicleEF	UBUS	1.5000e-005	1.3000e-005
tblVehicleEF	UBUS	0.03	0.04
tblVehicleEF	UBUS	8.3320e-003	0.01
tblVehicleEF	UBUS	4.9460e-003	5.2910e-003
tblVehicleEF	UBUS	1.4000e-005	1.2000e-005

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblVehicleEF	UBUS	3.9000e-005	6.9390e-003
tblVehicleEF	UBUS	4.5100e-004	1.9590e-003
tblVehicleEF	UBUS	2.1000e-005	0.00
tblVehicleEF	UBUS	0.03	0.06
tblVehicleEF	UBUS	8.7000e-005	7.8600e-003
tblVehicleEF	UBUS	8.3600e-003	8.2160e-003
tblVehicleEF	UBUS	0.01	8.5010e-003
tblVehicleEF	UBUS	1.4000e-005	3.0000e-005
tblVehicleEF	UBUS	3.9000e-005	6.9390e-003
tblVehicleEF	UBUS	4.5100e-004	1.9590e-003
tblVehicleEF	UBUS	2.1000e-005	0.00
tblVehicleEF	UBUS	1.77	0.60
tblVehicleEF	UBUS	8.7000e-005	7.8600e-003
tblVehicleEF	UBUS	9.1530e-003	8.9960e-003
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	54.00	65.00
tblVehicleTrips	ST_TR	4.91	2.80
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	8.14	6.37
tblVehicleTrips	ST_TR	46.12	37.59
tblVehicleTrips	SU_TR	4.09	2.33
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	6.28	4.91
tblVehicleTrips	SU_TR	21.10	17.20
tblVehicleTrips	WD_TR	5.44	3.10
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	7.32	5.73
tblVehicleTrips	WD_TR	37.75	30.77
tblWater	AerobicPercent	87.46	100.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	26.42	0.00
tblWoodstoves	NumberCatalytic	3.08	0.00
tblWoodstoves	NumberNoncatalytic	26.42	0.00
tblWoodstoves	NumberNoncatalytic	3.08	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	7.2495	0.1262	10.9613	5.8000e-004		0.0608	0.0608		0.0608	0.0608	0.0000	17.9283	17.9283	0.0172	0.0000	18.3590
Energy	2.5000e-004	2.3200e-003	1.9500e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	1,100.0061	1,100.0061	0.2035	0.0247	1,112.4572
Mobile	2.7892	1.7913	17.3550	0.0415	4.1537	0.0268	4.1805	1.0359	0.0250	1.0609	0.0000	3,830.4994	3,830.4994	0.1962	0.1786	3,888.6296
Stationary	0.0825	0.2305	0.2103	4.0000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	38.2701	38.2701	5.3700e-003	0.0000	38.4043
Waste						0.0000	0.0000		0.0000	0.0000	142.0774	0.0000	142.0774	8.3965	0.0000	351.9908
Water						0.0000	0.0000		0.0000	0.0000	34.5305	60.8607	95.3912	0.1301	0.0765	121.4297
Total	10.1214	2.1503	28.5285	0.0424	4.1537	0.0999	4.2536	1.0359	0.0981	1.1340	176.6079	5,047.5646	5,224.1725	8.9490	0.2798	5,531.2706

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.2214	0.1262	10.9613	5.8000e-004		0.0608	0.0608		0.0608	0.0608	0.0000	17.9283	17.9283	0.0172	0.0000	18.3590
Energy	2.5000e-004	2.3200e-003	1.9500e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	1,100.0061	1,100.0061	0.2035	0.0247	1,112.4572

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mobile	2.7892	1.7913	17.3550	0.0415	4.1537	0.0268	4.1805	1.0359	0.0250	1.0609	0.0000	3,830.4994	3,830.4994	0.1962	0.1786	3,888.6296
Stationary	0.0825	0.2305	0.2103	4.0000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	38.2701	38.2701	5.3700e-003	0.0000	38.4043
Waste						0.0000	0.0000		0.0000	0.0000	142.0774	0.0000	142.0774	8.3965	0.0000	351.9908
Water						0.0000	0.0000		0.0000	0.0000	34.5305	60.8607	95.3912	0.1301	0.0765	121.4297
Total	9.0933	2.1503	28.5285	0.0424	4.1537	0.0999	4.2536	1.0359	0.0981	1.1340	176.6079	5,047.5646	5,224.1725	8.9490	0.2798	5,531.2706

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	10.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.7892	1.7913	17.3550	0.0415	4.1537	0.0268	4.1805	1.0359	0.0250	1.0609	0.0000	3,830.4994	3,830.4994	0.1962	0.1786	3,888.6296
Unmitigated	2.7892	1.7913	17.3550	0.0415	4.1537	0.0268	4.1805	1.0359	0.0250	1.0609	0.0000	3,830.4994	3,830.4994	0.1962	0.1786	3,888.6296

4.2 Trip Summary Information

Seely Ave (681 E Trimble), San Jose - Operation Gen - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	4,095.10	3,698.80	3077.93	8,991,707	8,991,707
City Park	0.00	0.00	0.00		
Condo/Townhouse	882.42	980.98	756.14	2,028,898	2,028,898
Enclosed Parking Structure	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Regional Shopping Center	621.55	759.32	347.44	1,237,838	1,237,838
Total	5,599.07	5,439.10	4,181.51	12,258,442	12,258,442

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	65	35	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.520010	0.037190	0.236196	0.132940	0.023827	0.006005	0.009578	0.007718	0.001064	0.000403	0.022009	0.000684	0.002378
City Park	0.520010	0.037190	0.236196	0.132940	0.023827	0.006005	0.009578	0.007718	0.001064	0.000403	0.022009	0.000684	0.002378
Condo/Townhouse	0.520010	0.037190	0.236196	0.132940	0.023827	0.006005	0.009578	0.007718	0.001064	0.000403	0.022009	0.000684	0.002378
Enclosed Parking Structure	0.520010	0.037190	0.236196	0.132940	0.023827	0.006005	0.009578	0.007718	0.001064	0.000403	0.022009	0.000684	0.002378
Enclosed Parking with Elevator	0.520010	0.037190	0.236196	0.132940	0.023827	0.006005	0.009578	0.007718	0.001064	0.000403	0.022009	0.000684	0.002378
Regional Shopping Center	0.520010	0.037190	0.236196	0.132940	0.023827	0.006005	0.009578	0.007718	0.001064	0.000403	0.022009	0.000684	0.002378

5.0 Energy Detail

Historical Energy Use: N

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Regional Shopping Center	47261	2.5000e-004	2.3200e-003	1.9500e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5220	2.5220	5.0000e-005	5.0000e-005	2.5370
Total		2.5000e-004	2.3200e-003	1.9500e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5220	2.5220	5.0000e-005	5.0000e-005	2.5370

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	47261	2.5000e-004	2.3200e-003	1.9500e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5220	2.5220	5.0000e-005	5.0000e-005	2.5370
Total		2.5000e-004	2.3200e-003	1.9500e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5220	2.5220	5.0000e-005	5.0000e-005	2.5370

5.3 Energy by Land Use - Electricity

Unmitigated

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	8.3525e+06	674.3760	0.1250	0.0152	682.0177
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	1.52564e+06	123.1795	0.0228	2.7700e-003	124.5753
Enclosed Parking Structure	368666	29.7659	5.5200e-003	6.7000e-004	30.1031
Enclosed Parking with Elevator	3.13626e+06	253.2197	0.0470	5.6900e-003	256.0891
Regional Shopping Center	209847	16.9429	3.1400e-003	3.8000e-004	17.1349
Total		1,097.4840	0.2035	0.0247	1,109.9201

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	8.3525e+06	674.3760	0.1250	0.0152	682.0177
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	1.52564e+06	123.1795	0.0228	2.7700e-003	124.5753

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Enclosed Parking Structure	368666	29.7659	5.5200e-003	6.7000e-004	30.1031
Enclosed Parking with Elevator	3.13626e+006	253.2197	0.0470	5.6900e-003	256.0891
Regional Shopping Center	209847	16.9429	3.1400e-003	3.8000e-004	17.1349
Total		1,097.4840	0.2035	0.0247	1,109.9201

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.2214	0.1262	10.9613	5.8000e-004		0.0608	0.0608		0.0608	0.0608	0.0000	17.9283	17.9283	0.0172	0.0000	18.3590
Unmitigated	7.2495	0.1262	10.9613	5.8000e-004		0.0608	0.0608		0.0608	0.0608	0.0000	17.9283	17.9283	0.0172	0.0000	18.3590

6.2 Area by SubCategory

Unmitigated

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.1998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.7194					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3303	0.1262	10.9613	5.8000e-004		0.0608	0.0608		0.0608	0.0608	0.0000	17.9283	17.9283	0.0172	0.0000	18.3590
Total	7.2495	0.1262	10.9613	5.8000e-004		0.0608	0.0608		0.0608	0.0608	0.0000	17.9283	17.9283	0.0172	0.0000	18.3590

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1717					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.7194					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.3303	0.1262	10.9613	5.8000e-004		0.0608	0.0608		0.0608	0.0608	0.0000	17.9283	17.9283	0.0172	0.0000	18.3590
Total	6.2214	0.1262	10.9613	5.8000e-004		0.0608	0.0608		0.0608	0.0608	0.0000	17.9283	17.9283	0.0172	0.0000	18.3590

Seely Ave (681 E Trimble), San Jose - Operation Gen - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	95.3912	0.1301	0.0765	121.4297
Unmitigated	95.3912	0.1301	0.0765	121.4297

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	86.0685 / 54.2606	83.3862	0.1146	0.0674	106.3403
City Park	0 / 2.9787	0.8418	1.6000e-004	2.0000e-005	0.8513
Condo/Townhouse	10.0337 / 6.32561	9.7210	0.0134	7.8600e-003	12.3970

Seely Ave (681 E Trimble), San Jose - Operation Gen - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.49626 / 0.917066	1.4422	1.9900e-003	1.1700e-003	1.8412
Total		95.3912	0.1301	0.0765	121.4297

Mitigated

Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e	
Land Use Mgal	MT/yr				
Apartments Mid Rise	86.0685 / 54.2606	83.3862	0.1146	0.0674	106.3403
City Park	0 / 2.9787	0.8418	1.6000e-004	2.0000e-005	0.8513
Condo/Townhouse	10.0337 / 6.32561	9.7210	0.0134	7.8600e-003	12.3970
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.49626 / 0.917066	1.4422	1.9900e-003	1.1700e-003	1.8412
Total		95.3912	0.1301	0.0765	121.4297

8.0 Waste Detail

Seely Ave (681 E Trimble), San Jose - Operation Gen - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	142.0774	8.3965	0.0000	351.9908
Unmitigated	142.0774	8.3965	0.0000	351.9908

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	607.66	123.3495	7.2898	0.0000	305.5931
City Park	0.21	0.0426	2.5200e-003	0.0000	0.1056
Condo/Townhouse	70.84	14.3799	0.8498	0.0000	35.6255
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	21.21	4.3054	0.2544	0.0000	10.6665

Seely Ave (681 E Trimble), San Jose - Operation Gen - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total		142.0774	8.3965	0.0000	351.9908
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Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	607.66	123.3495	7.2898	0.0000	305.5931
City Park	0.21	0.0426	2.5200e-003	0.0000	0.1056
Condo/Townhouse	70.84	14.3799	0.8498	0.0000	35.6255
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	21.21	4.3054	0.2544	0.0000	10.6665
Total		142.0774	8.3965	0.0000	351.9908

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Seely Ave (681 E Trimble), San Jose - Operation Gen - Santa Clara County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	150	670	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (600 - 750 HP)	0.0825	0.2305	0.2103	4.0000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	38.2701	38.2701	5.3700e-003	0.0000	38.4043
Total	0.0825	0.2305	0.2103	4.0000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	38.2701	38.2701	5.3700e-003	0.0000	38.4043

11.0 Vegetation

Attachment 3: EMFAC2021 Emissions Calculations

Infrastructure - Summary of Construction Traffic Emissions (EMFAC2021)

Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	NBio- CO2	CH4	N2O	CO2e
					PM10	PM10	Total	PM2.5	PM2.5	Total				
<i>Tons</i>														
Criteria Pollutants														
2024	0.0077	0.1886	0.1365	0.0013	0.0357	0.0122	0.0479	0.0054	0.0052	0.0106	133.0031	0.0104	0.0199	139.1966
Toxic Air Contaminants (1 Mile Trip Length)														
2024	0.0058	0.0458	0.0468	0.0001	0.0026	0.0008	0.0034	0.0004	0.0004	0.0007	12.5965	0.0019	0.0020	13.2279

Building 1 - Summary of Construction Traffic Emissions (EMFAC2021)

Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	NBio- CO2	CH4	N2O	CO2e
					PM10	PM10	Total	PM2.5	PM2.5	Total				
<i>Tons</i>														
Criteria Pollutants														
2024	0.0734	0.2326	0.8088	0.0028	0.2000	0.0194	0.2194	0.0301	0.0076	0.0377	268.9477	0.0124	0.0214	275.6446
2025	0.0865	0.2746	0.9467	0.0035	0.2502	0.0240	0.2743	0.0376	0.0094	0.0470	328.9942	0.0147	0.0261	337.1415
Toxic Air Contaminants (1 Mile Trip Length)														
2024	0.0643	0.0899	0.2947	0.0004	0.0196	0.0023	0.0219	0.0029	0.0010	0.0040	37.8929	0.0062	0.0050	39.5387
2025	0.0762	0.1086	0.3474	0.0005	0.0245	0.0029	0.0274	0.0037	0.0012	0.0049	46.3773	0.0074	0.0061	48.3779

TH - Summary of Construction Traffic Emissions (EMFAC2021)

Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	NBio- CO2	CH4	N2O	CO2e
					PM10	PM10	Total	PM2.5	PM2.5	Total				
<i>Tons</i>														
Criteria Pollutants														
2024	0.0479	0.1354	0.5229	0.0018	0.1295	0.0118	0.1413	0.0195	0.0046	0.0241	166.4812	0.0073	0.0125	170.3855
2025	0.0598	0.1692	0.6489	0.0023	0.1718	0.0156	0.1874	0.0259	0.0060	0.0319	216.0245	0.0092	0.0161	221.0586
2026	0.0563	0.1596	0.6103	0.0022	0.1718	0.0155	0.1873	0.0259	0.0060	0.0318	211.4341	0.0087	0.0157	216.3285
2027	0.0032	0.0091	0.0347	0.0001	0.0104	0.0009	0.0113	0.0016	0.0004	0.0019	12.4664	0.0005	0.0009	12.7529
Toxic Air Contaminants (1 Mile Trip Length)														
2024	0.0420	0.0519	0.1889	0.0002	0.0126	0.0014	0.0140	0.0019	0.0006	0.0025	22.9744	0.0038	0.0030	23.9596
2025	0.0528	0.0664	0.2360	0.0003	0.0167	0.0018	0.0186	0.0025	0.0008	0.0033	29.8280	0.0048	0.0039	31.0974
2026	0.0501	0.0640	0.2230	0.0003	0.0167	0.0018	0.0186	0.0025	0.0008	0.0033	29.1956	0.0046	0.0038	30.4291
2027	0.0029	0.0037	0.0127	0.0000	0.0010	0.0001	0.0011	0.0002	0.0000	0.0002	1.7211	0.0003	0.0002	1.7934

Affordable - Summary of Construction Traffic Emissions (EMFAC2021)

Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	NBio- CO2	CH4	N2O	CO2e
					PM10	PM10	Total	PM2.5	PM2.5	Total				
					<i>Tons</i>									
Criteria Pollutants														
2024	0.0153	0.0415	0.1667	0.0006	0.0412	0.0037	0.0449	0.0062	0.0014	0.0076	52.0580	0.0023	0.0038	53.2531
2025	0.0283	0.0768	0.3067	0.0011	0.0810	0.0072	0.0883	0.0122	0.0028	0.0150	100.1056	0.0043	0.0073	102.3882
Toxic Air Contaminants (1 Mile Trip Length)														
2024	0.0134	0.0159	0.0601	0.0001	0.0040	0.0004	0.0044	0.0006	0.0002	0.0008	7.1438	0.0012	0.0009	7.4496
2025	0.0250	0.0302	0.1112	0.0001	0.0079	0.0008	0.0087	0.0012	0.0004	0.0015	13.7449	0.0023	0.0018	14.3287

Building 2 - Summary of Construction Traffic Emissions (EMFAC2021)

Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	NBio- CO2	CH4	N2O	CO2e
					PM10	PM10	Total	PM2.5	PM2.5	Total				
<i>Tons</i>														
Criteria Pollutants														
2024	0.0271	0.0907	0.2993	0.0011	0.0741	0.0074	0.0815	0.0112	0.0029	0.0141	102.0844	0.0047	0.0084	104.6977
2025	0.1012	0.3399	1.1116	0.0042	0.2941	0.0290	0.3231	0.0442	0.0114	0.0556	396.1339	0.0179	0.0324	406.2236
2026	0.0828	0.2793	0.9088	0.0036	0.2554	0.0251	0.2805	0.0384	0.0098	0.0482	336.8080	0.0147	0.0274	345.3393
Toxic Air Contaminants (1 Mile Trip Length)														
2024	0.0237	0.0351	0.1095	0.0002	0.0073	0.0009	0.0082	0.0011	0.0004	0.0015	14.5117	0.0023	0.0019	15.1448
2025	0.0891	0.1347	0.4098	0.0006	0.0289	0.0035	0.0324	0.0044	0.0015	0.0058	56.3408	0.0088	0.0075	58.7825
2026	0.0734	0.1130	0.3369	0.0005	0.0251	0.0030	0.0281	0.0038	0.0013	0.0051	47.9041	0.0073	0.0063	49.9670

Building 3 - Summary of Construction Traffic Emissions (EMFAC2021)

Pollutants YEAR	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	NBio- CO2	CH4	N2O	CO2e
					PM10	PM10	Total	PM2.5	PM2.5	Total				
<i>Tons</i>														
Criteria Pollutants														
2026	0.0665	0.2196	0.7287	0.0028	0.2044	0.0199	0.2243	0.0308	0.0077	0.0385	266.8686	0.0117	0.0215	273.5635
2027	0.0790	0.2602	0.8611	0.0034	0.2557	0.0247	0.2804	0.0385	0.0095	0.0480	326.5463	0.0139	0.0262	334.6872
Toxic Air Contaminants (1 Mile Trip Length)														
2026	0.0590	0.0890	0.2697	0.0004	0.0201	0.0024	0.0224	0.0030	0.0010	0.0040	37.8739	0.0058	0.0050	39.5044
2027	0.0706	0.1074	0.3203	0.0005	0.0251	0.0030	0.0281	0.0038	0.0012	0.0050	46.3346	0.0069	0.0061	48.3181

Infrastructure - CalEEMod Construction Inputs

Phase	CalEEMod	CalEEMod	Total	Total	CalEEMod	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class	Worker VMT	Vendor VMT	Hauling VMT
	WORKER TRIPS	VENDOR TRIPS	Worker Trips	Vendor Trips	HAULING TRIPS									
Demolition	8	0	120	0	106	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1296	0	2120
Site Preparation	33	0	2112	0	3,000	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	22809.6	0	60000
Trenching/Utilities	5	0	325	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	3510	0	0
Paving	10	0	660	0	1560	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	7128	0	11388

Number of Days Per Year

2024	2/1/24	9/30/24	243	175
			243	175 Total Workdays

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	2/1/2024	2/21/2024	5	15
Site Preparation	2/1/2024	4/30/2024	5	64
Trenching/Utilities	4/1/2024	6/28/2024	5	65
Paving	7/1/2024	9/30/2024	5	66

Building 1 - CalEEMod Construction Inputs

Phase	CalEEMod	CalEEMod	Total	Total	CalEEMod	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling Vehicle	Worker	Vendor	Hauling
	WORKER	VENDOR	Worker	Vendor	HAULING									
Site Preparation	10	0	210	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	2268	0	0
Trenching	8	0	168	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1814.4	0	0
Building Construction	350	71	98700	20022	2600	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	1065960	146160.6	18980
Architectural Coating	70	0	11970	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	129276	0	0
Paving	13	0	130	0	27	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	1404	0	197.1

Number of Days Per Year				
2024	4/1/24	12/31/24	275	197
2025	1/1/25	12/10/25	344	246
			619	443 Total Workdays

Phase	Start Date	End Date	Days/Week	Workdays
Site Preparation	4/1/2024	4/29/2024	5	21
Trenching	5/1/2024	5/29/2024	5	21
Building Construction	5/31/2024	6/30/2025	5	282
Architectural Coating	4/1/2025	11/25/2025	5	171
Paving	11/27/2025	12/10/2025	5	10

Townhomes - CalEEMod Construction Inputs

Phase	CalEEMod	CalEEMod	Total	Total	CalEEMod	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling Vehicle	Worker	Vendor	Hauling
	WORKER	VENDOR	Worker	Vendor	HAULING									
Trenching/Utilities	5	0	490	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	5292	0	0
Paving	13	0	728	0	400	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	7862.4	0	2920
Building Foundation	140	0	7700	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	83160	0	0
Building Construction	140	28	102200	20440	600	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	1103760	149212	4380
Architectural Coating	28	0	10220	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	110376	0	0

Number of Days Per Year

2024	4/1/24	12/31/24	275	275
2025	1/1/25	12/31/25	365	365
2026	1/1/26	12/31/26	365	365
2027	1/1/27	1/22/27	22	22
			1027	1027 Total Workdays

Phase	Start Date	End Date	Days/Week	Workdays
Trenching/Utilities	4/1/2024	7/7/2024	7	98
Paving	7/9/2024	9/2/2024	7	56
Building Foundation	9/4/2024	10/28/2024	7	55
Building Construction	9/26/2024	9/25/2026	7	730
Architectural Coating	1/23/2026	1/22/2027	7	365

Affordable - CalEEMod Construction Inputs

Phase	CalEEMod	CalEEMod	Total	Total	CalEEMod	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling Vehicle	Worker	Vendor	Hauling
	WORKER	VENDOR	Worker	Vendor	HAULING									
Site Preparation	10	0	100	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1080	0	0
Trenching	8	0	80	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	864	0	0
Building Construction	138	24	26910	4680	400	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	290628	34164	2920
Architectural Coating	28	0	3668	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	39614.4	0	0
Paving	10	0	150	0	0	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	1620	0	0

Number of Days Per Year					
2024	8/1/24	12/31/24	153	110	
2025	1/1/25	10/28/25	301	216	
			454	325	Total Workdays

Phase	Start Date	End Date	Days/Week	Workdays
Site Preparation	8/1/2024	8/14/2024	5	10
Trenching	8/15/2024	8/28/2024	5	10
Building Construction	8/29/2024	5/28/2025	5	195
Architectural Coating	4/29/2025	10/28/2025	5	131
Paving	10/8/2025	10/28/2025	5	15

Building 2 - CalEEMod Construction Inputs

Phase	CalEEMod	CalEEMod	Total	Total	CalEEMod	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling Vehicle	Worker	Vendor	Hauling
	WORKER	VENDOR	Worker	Vendor	HAULING									
Site Preparation	10	0	210	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	2268	0	0
Trenching	8	0	168	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1814.4	0	0
Building Construction	389	86	134983	29842	3800	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	1457816	217846.6	27740
Architectural Coating	78	0	16926	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	182800.8	0	0
Paving	13	0	130	0	27	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	1404	0	197.1

Number of Days Per Year

2024	10/1/24	12/31/24	92	66
2025	1/1/25	12/31/25	365	261
2026	1/1/26	11/13/26	317	227
			774	554 Total Workdays

Phase	Start Date	End Date	Days/Week	Workdays
Site Preparation	10/1/2024	10/29/2024	5	21
Trenching	10/31/2024	11/28/2024	5	21
Building Construction	11/30/2024	3/31/2026	5	347
Architectural Coating	12/31/2025	10/29/2026	5	217
Paving	10/31/2026	11/13/2026	5	10

Building 3 - CalEEMod Construction Inputs

Phase	CalEEMod	CalEEMod	Total	Total	CalEEMod	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling Vehicle	Worker	Vendor	Hauling
	WORKER	VENDOR	Worker	Vendor	HAULING									
	TRIPS	TRIPS	Trips	Trips	TRIPS									
Site Preparation	10	0	210	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	2268	0	0
Trenching	8	0	168	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	1814.4	0	0
Building Construction	356	73	100392	20586	3400	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	1084234	150277.8	24820
Architectural Coating	71	0	12141	0	0	10.8	7.3	20	LD_Mix	HDT_Mix	HHDT	131122.8	0	0
Paving	10	0	100	0	27	10.8	7.3	7.3	LD_Mix	HDT_Mix	HHDT	1080	0	197.1

Number of Days Per Year				
2026	4/1/26	12/31/26	275	197
2027	1/1/27	12/10/27	344	246
			619	443 Total Workdays

Phase	Start Date	End Date	Days/Week	Workdays
Site Preparation	4/1/2026	4/29/2026	5	21
Trenching	5/1/2026	5/29/2026	5	21
Building Construction	5/31/2026	6/29/2027	5	282
Architectural Coating	4/1/2027	11/25/2027	5	171
Paving	11/27/2027	12/10/2027	5	10

Category	Mtx %	Adj	ROG_DIURN	ROG_HTSK	ROG_IDLEX	ROG_RESTL	ROG_RUNEX	ROG_RUNLS	ROG_STREX	NOX_IDLEX	NOX_RUNEX	NOX_STREX	CO_IDLEX	CO_RUNEX	CO_STREX	SO2_IDLEX	SO2_RUNEX	SO2_STREX	Road Dust	PM10	PM10_PM	PM10_PM	PM10_EX	PM10_RU	PM10_NEX	PM10_STREX	Road Dust	PM25_PM	PM25_PM	PM25_PM	PM25_IDL	PM25_RUN	PM25_STR	PM25_STR	CO2_NBIO	CO2_NBIO	CO2_NBIO	CH4_IDLE	CH4_RUNEX	CH4_STREX	N2O_IDLEX	N2O_RUNEX	N2O_STREX
			19	22	23	8	9	10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Hauling	100.0	1	0.000199377	5.83846E-05	0.23789936	0	0.01860554	0.00032501	4.36152E-07	4.075118	1.850604526	2.731403881	5.139556	0.77488683	0.000626	0.00728035	0.014635772	1.93499E-07	0.081298	0.025125	0.002182	0.025474	6.09682E-07	0.028454	0.008781	0.0003082	0.0243688	5.606E-07	832.31669	1617.1297	0.010973	0.222934	0.121678903	8.02769E-08	0.134072	0.258076714	1.34765E-05	0.024668	0.158249654	0.006031915			
	0.0	0	0.025794994	0.006259754	0.026359118	0	0.03811329	0.00596401	0.04894298	0.8928855	1.12291974	1.40789614	0.673181	0.34617278	1.07433	0.00148998	0.011664295	8.43209E-05	0.299	0.045389	0.012	0.002128	0.012985	0.000106814	0.044499	0.01589	0.003	0.0002035	0.0124511	9.821E-05	160.25985	1229.1806	8.5293121	0.013383	0.00965827	0.008772715	0.024668	0.158249654	0.006031915				
Vendor	50.0	0.5	9.79886E-05	2.91428E-05	0.134884908	0	0.00930277	0.0002625	2.18076E-07	2.037759	0.925202263	1.38170419	2.50778	0.38744341	0.000313	0.00364017	0.007317886	9.87497E-08	0.040649	0.017563	0.001091	0.012737	3.04841E-07	0.014227	0.004391	0.001041	0.0121644	2.803E-07	416.13835	808.54485	0.0097865	0.110467	0.006892451	4.01380E-08	0.007836	0.129038357	9.73817E-05	0.024668	0.158249654	0.006031915			
	50.0	0.5	0.012897497	0.003129877	0.013179559	0	0.019056644	0.02548201	0.02447149	0.4464293	0.556460987	0.70394807	0.335691	0.17398639	0.537165	0.00074499	0.005822147	4.21605E-05	0.0227	0.006	0.001064	0.006902	5.3407E-05	0.007945	0.0015	0.0001018	0.0062075	4.921E-05	80.129514	614.5903	4.2646661	0.006691	0.004829164	0.004836358	0.012344	0.079124827	0.003015508	0.024668	0.158249654	0.006031915			
	1	0.012995486	0.003159019	0.178074527	0	0.02835941	0.02574451	0.024471708	2.4839883	1.48176325	2.06965226	2.933471	0.5665298	0.537478	0.00438516	0.013150033	4.2257E-05	0.299	0.063348	0.023563	0.002155	0.01923	5.3719E-05	0.044499	0.022172	0.005891	0.0002059	0.0183919	4.939E-05	496.28827	1423.1552	4.2744426	0.123158	0.065668615	0.004836398	0.07938	0.208161184	0.003025696					
Worker	50.0	0.5	0.136796864	0.040510207	0	0.00394385	0.10236849	0.147535756	0	0.018684555	0.115476587	0	0.32486778	1.445873	0	0.002113349	0.000313927	0.003584	0.004	0	0.000585	0.000954881	0.001254	0.001	0	0.000539	0.000878	0	122.54122	31.754603	0	0.001026569	0.03235985	0	0.002080964	0.014940319	0.024668	0.158249654	0.006031915				
	25.0	0.25	0.148814258	0.041105424	0	0.00690435	0.11745495	0.134116008	0	0.0319581	0.094816504	0	0.354468197	1.306204	0	0.000804162	0.00021249	0.002306	0.002	0	0.000482	0.00072446	0.000807	0.0005	0	0.0004415	0.0006661	0	81.34419	21.494004	0	0.001555571	0.026204278	0	0.002343639	0.009623613	0.024668	0.158249654	0.006031915				
	25.0	0.25	0.072043204	0.020150051	0	0.00277508	0.05338915	0.094795741	0	0.017007912	0.082407943	0	0.2073341	0.905899	0	0.000831592	0.000213499	0.002217	0.002	0	0.000333	0.000526973	0.000776	0.0005	0	0.0003065	0.0004845	0	84.129497	21.596069	0	0.000794556	0.020482249	0	0.001504103	0.009197602	0.024668	0.158249654	0.006031915				
	1	0.357654326	0.101760681	0	0.01362228	0.2734126	0.376447505	0	0.067650567	0.292701033	0	0.88688396	3.657977	0	0.002847102	0.000739916	0.299	0.008107	0.008	0	0.001401	0.002296134	0.044499	0.002837	0.002	0	0.001289	0.0002086	0	288.01491	74.844475	0	0.001286696	0.079046277	0	0.005928705	0.033761535						

Category	Mix %	Adj	ROG_DIURN	ROG_HTSK	ROG_IDLEX	ROG_RESTL	ROG_RUNEX	ROG_RUNUN	ROG_STREX	NOX_IDLEX	NOX_RUNEX	NOX_STREX	CO_IDLEX	CO_RUNEX	CO_STREX	SO2_IDLEX	SO2_RUNEX	SO2_STREX	Road Dust	PM10	PM10_PM	PM10_PM	PM10_EX	PM10_RU	PM10_NEX	PM10_STREX	Road Dust	PM25_PM	PM25_PM	PM25_PM	PM25_EX	PM25_IDL	PM25_RUN	PM25_STR	PM25_STR	CO2_NBIO	CO2_NBIO	CO2_NBIO	CH4_IDLE	CH4_RUNEX	CH4_STREX	N2O_IDLEX	N2O_RUNEX	N2O_STREX
			19	22	23	8	9	10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Hauling	100.0	1	0.000161301	4.79645-05	0.32711502	0	0.0177956	0.00042304	4.206338-07	2.8652113	1.774037666	2.751173244	5.17629	0.736653561	0.003685	0.00709894	0.014348163	1.691916-07	0.081222	0.035128	0.002097	0.025021	5.202895-07	0.001762	0.011186	0.000100992	0.044499	0.015841	0.003	0.0001685	0.0106642	9.28E-05	158.59364	1213.6546	8.2050726	0.013842	0.0095355	0.00814196	0.024457	0.156018341	0.005882352			
	MHD	0.0	0	0.02318162	0.005603296	0.025250869	0	0.03248334	0.04529154	0.045776126	0.8479275	1.006394097	1.405484797	0.668176	0.2969393	1.000247	0.00147206	0.011511702	8.11155E-05	0.299	0.04526	0.012	0.001762	0.011186	0.000100992	0.044499	0.015841	0.003	0.0001685	0.0106642	9.28E-05	158.59364	1213.6546	8.2050726	0.013842	0.0095355	0.00814196	0.024457	0.156018341	0.005882352				
Vendor	50.0	0.5	8.00502E-05	2.39821-05	0.163592931	0	0.0088998	0.00021002	2.10316E-07	1.3826057	0.89702833	1.375886662	2.588145	0.3732678	0.003182	0.00354047	0.007174082	8.40956E-08	0.040611	0.017504	0.001048	0.012516	2.02108E-07	0.000881	0.005093	5.06458E-05	0.044499	0.022134	0.005891	0.0001842	0.0173196	4.664E-05	486.28315	1400.2441	4.1110934	0.121851	0.063333805	0.004157137	0.077838	0.204661187	0.002936234			
	MHD	50.0	0.5	0.011559081	0.002801648	0.012625434	0	0.01624167	0.022864507	0.022888063	0.4229638	0.502197049	0.703742398	0.334088	0.14846966	0.500124	0.00073603	0.005758511	4.05577E-05	0.022963	0.006	0.000881	0.005093	5.06458E-05	0.000881	0.005093	5.06458E-05	0.044499	0.022134	0.005891	0.0001842	0.0173196	4.664E-05	486.28315	1400.2441	4.1110934	0.121851	0.063333805	0.004157137	0.077838	0.204661187	0.002936234		
Worker	50.0	0.5	0.132316144	0.038798622	0	0.00347076	0.09896031	0.136662954	0	0.01669164	0.109258161	0	0.303302	1.355747	0	0.00117474	0.000305136	0.003568	0.004	0	0.00056	0.000924606	0.001249	0.001	0	0.0005155	0.0008501	0	118.83714	30.865404	0	0.000920346	0.030308682	0	0.001942295	0.014436598								
	LDT1	25.0	0.25	0.140646011	0.03898451	0	0.0061396	0.10983229	0.123932987	0	0.028671908	0.089369331	0	0.32677673	1.213816	0	0.00078885	0.000207607	0.002305	0.002	0	0.000453	0.000687493	0.000807	0.0005	0	0.0004172	0.0006321	0	79.795329	21.000607	0	0.001394323	0.02448908	0	0.002156838	0.009328014							
LDT2	25.0	0.25	0.070892203	0.019532741	0	0.00252324	0.05273079	0.088626233	0	0.01535685	0.07730776	0	0.15935521	0.854482	0	0.000899611	0.000207623	0.002215	0.002	0	0.000323	0.000515217	0.000775	0.0005	0	0.0002971	0.0004737	0	81.900889	21.001723	0	0.000484321	0.019128106	0	0.001411832	0.008875809								
	1	0.1348854318	0.097313873	0	0	0.01213271	0.26154339	0.349222174	0	0.02113271	0.26154339	0.349222174	0	0.32543394	3.434044	0	0.002773201	0.000720366	0.299	0.008088	0.008	0	0.001336	0.002127136	0.044499	0.022831	0.002	0	0.0012299	0.001956	0	280.53836	72.867394	0	0.00296279	0.074125868	0	0.005107966	0.012635421					

Category	Mix %	Adj	ROG_DIURN	ROG_HTSK	ROG_IDLEX	ROG_RESTL	ROG_RUNEX	ROG_RUNLS	ROG_STREX	NOX_IDLEX	NOX_RUNEX	NOX_STREX	CO_IDLEX	CO_RUNEX	CO_STREX	SO2_IDLEX	SO2_RUNEX	SO2_STREX	Road Dust	PM10	PM10_PM	PM10_PM	PM10	PM10_RU	PM10_STREX	Road Dust	PM25_PM	PM25_PM	PM25_PM	PM25_IDL	PM25_RUN	PM25_STR	PM25_STR	CO2_NBIO	CO2_NBIO	CO2_NBIO	CH4_IDLE	CH4_RUNEX	CH4_STREX	N2O_IDLEX	N2O_RUNEX	N2O_STREX
			PM10	BW	TW	EX	NEX	PM10_STREX	PM25	BW	TW	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX
Hauling	100.0	1	0.000106002	3.361438-05	0.22445582	0	0.01701891	0.00032073	0.068488-07	3.8409822	1.701647234	0.760133946	5.153655	0.73309991	0.000738	0.00692351	0.014049606	1.337396-07	0.081458	0.025132	0.002013	0.024769	2.29379E-07	0.001445	0.009635	9.6335E-05	0.04499	0.015781	0.003	0.001382	0.0092102	8.858E-05	156.6958	1196.5286	7.914622	0.014329	0.009524548	0.007918504	0.024186	0.135578352	0.005689167	
	0.0	0	0.0221312827	0.005105771	0.0242461021	0	0.027766184	0.04201809	0.043042965	0.8059976	0.906228922	1.39169173	0.664762	0.2571492	0.934813	0.00145189	0.011343734	7.82441E-05	0.299	0.045088	0.012	0.001445	0.009635	9.6335E-05	0.04499	0.015781	0.003	0.001382	0.0092102	8.858E-05	156.6958	1196.5286	7.914622	0.014329	0.009524548	0.007918504	0.024186	0.135578352	0.005689167			
Vendor	50.0	0.5	3.30030E-05	1.82071E-05	0.16221701	0	0.00050965	0.00011136	0.03242E-07	1.5245411	0.802823617	1.380660373	2.576828	0.36654996	0.000389	0.00346176	0.007024803	6.4888E-08	0.040729	0.017506	0.001006	0.012385	1.64687E-07	0.001445	0.009635	9.6335E-05	0.04499	0.015781	0.003	0.001382	0.0092102	8.858E-05	156.6958	1196.5286	7.914622	0.014329	0.009524548	0.007918504	0.024186	0.135578352	0.005689167	
	50.0	0.5	0.010656414	0.002255885	0.01213051	0	0.01383092	0.02100905	0.021521462	0.4009988	0.65114461	0.695845865	0.333381	0.1285746	0.467407	0.00072595	0.005973867	3.91122E-05	0.022544	0.006	0.000723	0.004818	4.81675E-05	0.001445	0.009635	9.6335E-05	0.04499	0.015781	0.003	0.001382	0.0092102	8.858E-05	156.6958	1196.5286	7.914622	0.014329	0.009524548	0.007918504	0.024186	0.135578352	0.005689167	
		1	0.010709414	0.002569693	0.17435842	0	0.02234037	0.021116041	0.02151688	2.3255399	1.303938078	2.075912838	2.909209	0.49512456	0.467775	0.0041877	0.01269667	3.91889E-05	0.299	0.063273	0.023566	0.001729	0.017702	4.83322E-05	0.001445	0.009635	9.6335E-05	0.04499	0.015781	0.003	0.001382	0.0092102	8.858E-05	156.6958	1196.5286	7.914622	0.014329	0.009524548	0.007918504	0.024186	0.135578352	0.005689167
Worker	50.0	0.5	0.127252154	0.036844958	0	0.000310372	0.09549445	0.1277128959	0	0.015187697	0.103974769	0	0.28653009	1.277031	0	0.0001145495	0.000297052	0.0003561	0.004	0.000536	0.000895416	0.001246	0.001	0	0.000493	0.0008233	0	0.000493	0.0008233	0	115.87797	30.047725	0	0.000837586	0.028479341	0	0.001838924	0.013991495				
	25.0	0.25	0.132430724	0.036894584	0	0.000546911	0.10347702	0.11457624	0	0.025809958	0.084390428	0	0.30149447	1.128878	0	0.000773719	0.000202829	0.002303	0.002	0.000427	0.000636611	0.000806	0.0005	0	0.0003926	0.000601	0	0.0003926	0.000601	0	78.26465	20.516787	0	0.00125256	0.022898387	0	0.0019927	0.009041201				
	25.0	0.25	0.069772888	0.018822709	0	0.00238206	0.05209969	0.083130872	0	0.014000924	0.071061014	0	0.185495	0.809666	0	0.000789304	0.000202147	0.002214	0.002	0.000111	0.000500467	0.000775	0.0005	0	0.000286	0.0004602	0	0.000286	0.0004602	0	79.851497	20.44778	0	0.000600438	0.018292607	0	0.001335689	0.008608075				
		1	0.329450766	0.09736225	0	0.01088088	0.25107136	0.324837454	0	0.054989579	0.261426211	0	0.77398336	3.215575	0	0.002708517	0.000702029	0.299	0.008078	0.008	0.001273	0.00049544	0.04499	0.002827	0.002	0	0.0011716	0.0018845	0	273.99411	71.012292	0	0.002600584	0.069670334	0	0.005167313	0.031640771					

Category	Mix %	Adj	ROG_DIURN	ROG_HTSK	ROG_IDLEX	ROG_RESTL	ROG_RUNEX	ROG_RUNLS	ROG_STREX	NOX_IDLEX	NOX_RUNEX	NOX_STREX	CO_IDLEX	CO_RUNEX	CO_STREX	SO2_IDLEX	SO2_RUNEX	SO2_STREX	Road Dust	PM10	PM10_PM	PM10_PM	PM10_IDL	PM10_RU	PM10_STREX	Road Dust	PM25	PM25_PM	PM25_PM	PM25_IDL	PM25_RUN	PM25_STR	PM25_STR	CO2_NBIO	CO2_NBIO	CO2_NBIO	CH4_IDLE	CH4_RUNEX	CH4_STREX	N2O_IDLEX	N2O_RUNEX	N2O_STREX
			19	22	23	8	9	10	X	X	X																															
Hauling	100.0	1	9.15526-05	2.302886-05	0.231198124	0	0.01628701	0.00326147	0.725161E-07	3.7343071	1.633848814	2.745433901	5.124778	0.70877415	0.030782	0.067481	0.013717518	1.259E-07	0.081782	0.025135	0.001939	0.024473	2.86377E-07	0.028624	0.008784	0.003849	0.0224106	2.638E-07	777.08947	1519.8036	0.0177352	0.218219	0.10604745	6.86812E-08	0.125416	0.24268661	7.35107E-06	0.02384	0.150701674	0.025522907		
MHD	0.0	0	0.019771494	0.004666448	0.023376294	0	0.02362674	0.03865481	0.040569481	0.7577071	0.814699228	1.371110948	0.659814	0.22479796	0.879578	0.00142742	0.011318512	7.55078E-05	0.299	0.044887	0.012	0.001186	0.008315	9.25129E-05	0.04449	0.015693	0.003	0.003134	0.0079473	8.506E-05	154.3221	1175.4531	7.6378398	0.014761	0.009545583	0.00755705						
Vendor	50.0	0.5	4.379E-05	1.45199E-05	0.12079202	0	0.00848361	0.00310704	1.8625E-07	1.8671535	0.81624407	1.377165951	2.562389	0.35483708	0.003391	0.00379405	0.008688757	6.29501E-08	0.040891	0.017568	0.0007	0.012226	1.43188E-07	0.014312	0.004392	0.000504	0.0117054	1.317E-07	388.54474	759.63181	0.0636376	0.10511	0.052023725	3.43406E-08	0.023708	0.121304531	1.87533E-05	0.02708	0.173358837	0.002761454		
MHD	50.0	0.5	0.009885747	0.002233234	0.011680147	0	0.01181337	0.01932745	0.020284741	0.3788536	0.407349614	0.68555474	0.329907	0.11239898	0.437989	0.00071371	0.005566956	3.77539E-05	0.022418	0.006	0.000593	0.004157	4.62565E-05	0.007846	0.0015	0.000567	0.0037936	4.253E-05	77.161049	587.72653	3.8189199	0.007381	0.004772667	0.003778525	0.01192	0.073358837	0.002761454	0.02708	0.173358837	0.002761454		
MHD	1	0.009931543	0.002347754	0.172483209	0	0.01995688	0.01945819	0.020284927	2.2460071	1.224274021	2.058272425	2.892296	0.46678606	0.43838	0.00408776	0.012428013	3.78169E-05	0.299	0.063309	0.023568	0.001563	0.016394	4.63996E-05	0.04449	0.022158	0.005892	0.003491	0.0156791	4.266E-05	465.70578	1347.3583	3.8252875	0.11649	0.057796392	0.00377856	0.074628	0.196655167	0.002765129				
Worker	LDA	50.0	0.5	0.124774953	0.03332579	0	0.00280128	0.09381266	0.118752298	0	0.013978935	0.09494609	0	0.27239886	1.207995	0	0.001118612	0.000289607	0.003554	0.004	0	0.000508	0.000861352	0.001244	0.001	0	0.0004677	0.000792	0	113.15781	29.294583	0	0.000769144	0.028851221	0	0.001754911	0.0136076					
LDT1	25.0	0.25	0.127182533	0.034919795	0	0	0.00048531	0.09837243	0.106039612	0	0.02313956	0.079887107	0	0.27893124	1.050819	0	0.000787444	0.000198227	0.002299	0.002	0	0.000394	0.000618991	0.000805	0.0005	0	0.0003623	0.0005691	0	76.749467	20.051285	0	0.001123286	0.021436306	0	0.001841323	0.008783877					
LDT2	25.0	0.25	0.064611887	0.018162188	0	0	0.00212373	0.05123426	0.078241944	0	0.012836987	0.069477589	0	0.17725445	0.771154	0	0.000770701	0.000197139	0.002213	0.002	0	0.000296	0.000481527	0.000775	0.0005	0	0.0002722	0.0004427	0	77.969563	19.94124	0	0.000599632	0.017367339	0	0.001270118	0.008386223					
MHD	1	0.320469373	0.088416562	0	0	0.020977811	0.24341934	0.303033854	0	0.049955482	0.248893996	0	0.72859455	3.029968	0	0.002648857	0.000669374	0.299	0.008067	0.008	0	0.001198	0.00196187	0.04449	0.002823	0.002	0	0.0011022	0.0018039	0	267.87484	69.287108	0	0.002452062	0.066654866	0	0.004866352	0.00773861				

CalEEMod EMFAC2021 Emission Factors Input

Year 2028

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
A	CH4_IDLEX		0	0	0	0.004681	0.002686	0.015111	0.212115634	0.007562		0	0	0.080095	0
A	CH4_RUNEX	0.001425	0.004052	0.002099	0.002443	0.005182	0.005094	0.009558	0.100129934	0.010383	0.534009843	0.148032	0.089223	0.007858	
A	CH4_STREX	0.05078	0.0804	0.066131	0.073205	0.01851	0.00972	0.007218	6.02384E-08	0.014744	0.002447775	0.164333	0.005139	0.023908	
A	CO_IDLEX		0	0	0	0.188693	0.137463	0.652204	5.089184403	0.545964		0	0	1.787728	0
A	CO_RUNEX	0.521134	1.036877	0.681545	0.719023	0.66017	0.430262	0.198131	0.682268113	0.337547	6.308197017	11.46379	0.781582	0.63572	
A	CO_STREX	2.294229	3.923757	2.949988	3.040087	2.13812	1.139056	0.820911	0.000817522	1.616531	0.549940604	7.875637	0.676529	2.082199	
A	CO2_NBIO_IDLEX		0	0	0	8.174906	13.47489	151.3137	757.8199397	89.65996		0	0	186.3421	0
A	CO2_NBIO_RUNEX	221.3548	301.1336	305.0199	364.8907	709.2157	756.5887	1148.112	1479.563001	1295.864	1056.22719	186.1355	980.422	1664.507	
A	CO2_NBIO_STREX	57.20211	78.42266	77.90605	92.48552	16.7174	8.919443	7.360999	0.009926653	13.09844	3.05444779	44.44114	3.906108	20.83311	
A	NOX_IDLEX		0	0	0	0.040228	0.080872	0.713496	3.622538357	0.349967		0	0	1.180191	0
A	NOX_RUNEX	0.026023	0.083105	0.047401	0.058663	0.401317	0.595736	0.73076	1.566149473	0.873039	0.292637904	0.525696	1.9184	1.356761	
A	NOX_STREX	0.191361	0.30277	0.265884	0.301311	0.362492	0.195812	1.328267	2.706913868	0.97934	0.026113624	0.112461	0.514906	0.298385	
A	PM10_IDLEX		0	0	0	0.000681	0.001436	0.000973	0.00186378	0.000355		0	0	0.000929	0
A	PM10_PMBW	0.007097	0.009182	0.008848	0.008917	0.076058	0.088784	0.044461	0.081989135	0.050018	0.126376132	0.012	0.044367	0.044942	
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.009393	0.010621	0.012	0.03513875	0.012	0.044658837	0.004	0.01049	0.013305	
A	PM10_RUNEX	0.000955	0.001465	0.001116	0.001103	0.01052	0.018516	0.007191	0.024126657	0.013796	0.005534317	0.001975	0.010136	0.025215	
A	PM10_STREX	0.001644	0.002339	0.001836	0.001791	0.000161	6.74E-05	8.91E-05	1.63816E-07	0.000124	1.26121E-05	0.003451	4.44E-05	0.000255	
A	PM25_IDLEX		0	0	0	0.000652	0.001373	0.00093	0.001776496	0.00034		0	0	0.000888	0
A	PM25_PMBW	0.002484	0.003214	0.003097	0.003121	0.02662	0.031075	0.015561	0.028696197	0.017506	0.044231646	0.0042	0.015528	0.01573	
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002348	0.002655	0.003	0.008784687	0.003	0.011164709	0.001	0.002623	0.003326	
A	PM25_RUNEX	0.000878	0.001347	0.001027	0.001016	0.010031	0.0177	0.006872	0.023079587	0.01319	0.005290933	0.001844	0.009681	0.024084	
A	PM25_STREX	0.001511	0.002151	0.001688	0.001647	0.000148	6.19E-05	8.2E-05	1.50623E-07	0.000114	1.15963E-05	0.003234	4.08E-05	0.000235	
A	ROG_DIURN	0.242811	0.502428	0.266297	0.30328	0.104161	0.055259	0.018086	5.52258E-05	0.073045	0.00693921	3.814128	0.035978	24.71437	
A	ROG_HTSK	0.067372	0.134098	0.069588	0.076727	0.024934	0.012938	0.004224	1.75002E-05	0.015209	0.001959156	3.558397	0.00854	6.123699	
A	ROG_IDLEX		0	0	0	0.019017	0.014284	0.022534	0.318402382	0.040376		0	0	0.194779	0
A	ROG_RESTL		0	0	0	0	0	0	0	0		0	0	0	0
A	ROG_RUNEX	0.005105	0.01734	0.007865	0.009722	0.061058	0.092017	0.020251	0.01554384	0.036618	0.058866401	0.934888	0.046117	0.060107	
A	ROG_RUNLS	0.182649	0.386011	0.19915	0.228657	0.147249	0.074801	0.035188	0.00015738	0.081255	0.007860127	3.787612	0.023629	0.148659	
A	ROG_STREX	0.222658	0.3933	0.29546	0.346297	0.089878	0.04658	0.038301	3.26616E-07	0.078288	0.008216344	1.195378	0.029135	0.095976	
A	SO2_IDLEX		0	0	0	7.95E-05	0.000129	0.001397	0.006567944	0.000846		0	0	0.001686	0
A	SO2_RUNEX	0.002188	0.002977	0.003015	0.003605	0.006923	0.007282	0.010874	0.013349969	0.012337	0.008501298	0.00184	0.009103	0.01631	
A	SO2_STREX	0.000566	0.000775	0.00077	0.000914	0.000165	8.82E-05	7.28E-05	9.81351E-08	0.000129	3.01963E-05	0.000439	3.86E-05	0.000206	
A	TOG_DIURN	0.242811	0.502428	0.266297	0.30328	0.104161	0.055259	0.018086	5.52258E-05	0.073045	0.00693921	0.083947	0.035978	24.71437	
A	TOG_HTSK	0.067372	0.134098	0.069588	0.076727	0.024934	0.012938	0.004224	1.75002E-05	0.015209	0.001959156	3.558397	0.00854	6.123699	
A	TOG_IDLEX		0	0	0	0.026882	0.019052	0.040694	0.560790581	0.05335		0	0	0.317855	0
A	TOG_RESTL		0	0	0	0	0	0	0	0		0	0	0	0
A	TOG_RUNEX	0.007441	0.0253	0.011462	0.014148	0.074104	0.106171	0.032495	0.117637308	0.051922	0.600927917	1.139755	0.142539	0.076332	
A	TOG_RUNLS	0.182649	0.386011	0.19915	0.228657	0.147249	0.074801	0.035188	0.00015738	0.081255	0.007860127	3.787612	0.023629	0.148659	
A	TOG_STREX	0.243783	0.430614	0.323492	0.379151	0.098405	0.050999	0.041934	3.57604E-07	0.085716	0.008995862	1.300164	0.031899	0.105082	
A	N2O_IDLEX		0	0	0	0.000612	0.00168	0.023392	0.122368779	0.013015		0	0	0.024273	0
A	N2O_RUNEX	0.003373	0.006829	0.004856	0.006027	0.037739	0.077781	0.147053	0.236311345	0.15401	0.163214312	0.037627	0.118964	0.068662	
A	N2O_STREX	0.026528	0.034164	0.032804	0.033699	0.030759	0.016258	0.005252	5.68332E-06	0.012713	0.004641839	0.006825	0.004687	0.032748	

CalEEMod EMFAC2021 Fleet Mix Input

Year 2028

FleetMixLandUseSubType LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
Apartments Mid Rise	0.52001	0.03719	0.236196	0.13294	0.023827	0.006005	0.009578	0.007718	0.001064	0.000403	0.022009	0.000684	0.002378
City Park	0.52001	0.03719	0.236196	0.13294	0.023827	0.006005	0.009578	0.007718	0.001064	0.000403	0.022009	0.000684	0.002378
Condo/Townhouse	0.52001	0.03719	0.236196	0.13294	0.023827	0.006005	0.009578	0.007718	0.001064	0.000403	0.022009	0.000684	0.002378
Enclosed Parking Structure	0.52001	0.03719	0.236196	0.13294	0.023827	0.006005	0.009578	0.007718	0.001064	0.000403	0.022009	0.000684	0.002378
Enclosed Parking with Elevator	0.52001	0.03719	0.236196	0.13294	0.023827	0.006005	0.009578	0.007718	0.001064	0.000403	0.022009	0.000684	0.002378
Regional Shopping Center	0.52001	0.03719	0.236196	0.13294	0.023827	0.006005	0.009578	0.007718	0.001064	0.000403	0.022009	0.000684	0.002378

Adjustment Factors	Vehicle Category	Fuel	Population	Pop Fract	VMT (miles/day)	VMT Fract	Trips/day	Trip Fract
	HHDT	GAS	1.47083478	1.00695E-05	154.3030105	0.000139	29.42846227	0.000201
	HHDT	DSL	9119.07892	0.062430493	1024317.446	0.9224592	134474.3376	0.92063
	HHDT	ELEC	270.954005	0.001854989	28275.15131	0.0254635	3483.700255	0.02385
	HHDT	NG	909.88698	0.006229214	57673.44076	0.0519384	8080.239508	0.055318
			10301.3907		1110420.341		146067.7059	
	LDA	GAS	600154.656	0.186257289	21978504.63	0.8513095	2786673.046	0.864841
	LDA	DSL	1207.84831	0.000374854	34499.51948	0.0013363	5156.172328	0.0016
	LDA	ELEC	69984.6371	0.021719649	2868125.206	0.1110932	336272.3496	0.104362
	LDA	PIH	22751.9262	0.007061033	936162.085	0.036261	94079.21473	0.029197
			694099.068		25817291.44		3222180.783	
	LDT1	GAS	49081.0099	0.222026803	1563538.266	0.9851178	218519.1405	0.988511
	LDT1	DSL	3.3764189	1.52738E-05	51.57305301	3.249E-05	9.619959751	4.35E-05
	LDT1	ELEC	344.716748	0.001559388	14328.80602	0.009028	1657.810379	0.007499
	LDT1	PIH	210.972342	0.000954371	9240.009417	0.0058217	872.3706358	0.003946
			49640.0754		1587158.654		221058.9414	
	LDT2	GAS	306289.622	0.208431557	10804407.3	0.9704242	1428230.323	0.971918
	LDT2	DSL	1124.63424	0.000765319	40163.41313	0.0036074	5296.189892	0.003604
	LDT2	ELEC	3966.16594	0.002698995	128586.5393	0.0115493	19886.52116	0.013533
	LDT2	PIH	3889.79971	0.002647027	160537.4754	0.0144191	16084.32179	0.010945
			315270.222		11133694.73		1469497.356	
	LHDT1	GAS	19758.1764	0.04416775	736964.0424	0.6019816	294367.389	0.658034
	LHDT1	DSL	11024.6905	0.024644773	426298.0601	0.3482173	138676.7372	0.31
	LHDT1	ELEC	1021.23389	0.002282883	60968.04446	0.0498011	14299.84153	0.031966
			31804.1008	0.071095406	1224230.147		447343.9677	
	LHDT2	GAS	2498.39068	0.024172457	89760.81805	0.2961146	37222.29854	0.360134
	LHDT2	DSL	5257.64994	0.050868872	198606.7634	0.6551897	66134.62211	0.639866
	LHDT2	ELEC	258.907678	0.002504986	14761.07055	0.0486957	3434.170837	0.033226
			8014.9483	0.077546315	303128.652		103356.9206	
	MCY	GAS	29377.6579	0.022009355	168474.0032	1	58755.31584	1
	MDV	GAS	168553.508	0.204794072	5803821.565	0.9493799	781481.4355	0.949507
	MDV	DSL	2426.78477	0.002948566	81862.86931	0.013391	11233.79404	0.013649
	MDV	ELEC	4086.68444	0.004965359	132418.1639	0.0216608	20489.54692	0.024895
	MDV	PIH	2378.28799	0.002889642	95173.33521	0.0155683	9834.220847	0.011949
			177445.265		6113275.934		823038.9973	
	MH	GAS	2135.932	6.727432719	20452.38386	0.6736353	213.6786372	0.673012
	MH	DSL	1038.17217	3.269876308	9908.829938	0.3263647	103.8172172	0.326988
			3174.10417		30361.2138		317.4958545	
	MHDT	GAS	1401.23397	0.008532925	72189.24736	0.1356928	28035.8892	0.170727
	MHDT	DSL	10803.0783	0.065786202	430729.4798	0.8096342	129114.2453	0.786251
	MHDT	ELEC	455.754173	0.002775351	23641.623	0.0444387	5888.878929	0.035861
	MHDT	NG	123.907996	0.000754548	5444.709533	0.0102343	1175.943642	0.007161
			12783.9744		532005.0597		164214.9571	
	OBUS	GAS	397.114471	0.021387874	16622.09352	0.2036011	7945.466334	0.427929
	OBUS	DSL	1000.42102	0.053880885	63426.65321	0.776902	10301.54556	0.554823
	OBUS	ELEC	11.1861302	0.000602465	887.4727094	0.0108705	223.8120932	0.012054
	OBUS	NG	10.8367987	0.000583651	704.2664166	0.0086264	96.44750857	0.005194
			1419.55842		81640.48586		18567.2715	
	SBUS	GAS	192.609486	0.017296637	9426.490292	0.3669994	770.4379438	0.069187
	SBUS	DSL	672.407102	0.060383222	14961.93086	0.5825094	9736.454837	0.874349
	SBUS	ELEC	19.5694243	0.001757365	629.4361187	0.0245057	226.2445637	0.020317
	SBUS	NG	27.798612	0.002496359	667.4476259	0.0259856	402.5239015	0.036147
			912.384624		25685.3049		11135.66125	
	UBUS	GAS	46.6273084	0.021676301	4869.278876	0.0818022	186.5092335	0.086705
	UBUS	DSL	397.790659	0.184926606	44197.61875	0.742505	1591.162635	0.739706
	UBUS	ELEC	30.092586	0.118928481	3155.026467	0.4320129	120.3703441	0.475714
	UBUS	NG	63.2577367	0.029407525	7303.083978	0.1226893	253.0309468	0.11763
			537.76829		59525.00807		2151.07316	

Source: EMFAC2021 (v1.0.2) Emission Rates

Region: Type: County

Region: Santa Clara

Calendar Year: 2027

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, Trips/mile for Trips, g/mile for RULEX, PMWB and PMT.V, g/tptr for STROK, HOTSOAK and RUNLOADS, g/vehicle/day for IDLEX and DIURN, PHEV calculated based on total VMT.

Table with columns: Region, Calendar, Vehicle, Agency, Fuel, Population, Total VMT, CVMT, EVMT, Trips, and various pollutant emission rates (CO, CO2, CH4, etc.) for Santa Clara. Includes rows for different vehicle types like HMDT, HMDT, Aggregate, etc.

**Attachment 4: Project Construction and Operation Dispersion Modeling
Inputs and Risk Calculations**

Attachment 4: Project Construction and Operation Dispersion Modeling Inputs and Risk Calculations

681 Trimble/Seeley Residential, San Jose

DPM Emissions and Modeling Emission Rates - Unmitigated

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions			Modeled Area (m ²)	DPM Emission Rate (g/s/m ²)
				(lb/yr)	(lb/hr)	(g/s)		
2024	Infrastructure	0.0417	DPM_I24	83.4	0.03565	4.49E-03	92950	4.83E-08
2024	Building 1 Const	0.0211	DPM_B124	42.2	0.01805	2.27E-03	13,257	1.72E-07
2025	Building 1 Const	0.0413	DPM_B125	82.5	0.03528	4.44E-03	13,257	3.35E-07
2024	Town Homes Const	0.0128	DPM_TH24	25.6	0.01094	1.38E-03	30,181	4.57E-08
2025	Town Homes Const	0.0221	DPM_TH25	44.3	0.01892	2.38E-03	30,181	7.90E-08
2026	Town Homes Const*	0.0231	DPM_TH26	46.2	0.01976	2.49E-03	30,181	8.25E-08
2024	Affordable Const	0.0127	DPM_AH24	25.5	0.01089	1.37E-03	6,392	2.15E-07
2025	Affordable Const	0.0351	DPM_AH25	70.3	0.03004	3.79E-03	6,392	5.92E-07
2024	Building 2 Const	0.0064	DPM_B224	12.9	0.00551	6.95E-04	14,723	4.72E-08
2025	Building 2 Const	0.0303	DPM_B225	60.6	0.02589	3.26E-03	14,723	2.22E-07
2026	Building 2 Const	0.0358	DPM_B226	71.6	0.03061	3.86E-03	14,723	2.62E-07
2026	Building 3 Const	0.0193	DPM_B326	38.6	0.01648	2.08E-03	13,332	1.56E-07
2027	Building 3 Const	0.0412	DPM_B327	82.3	0.03517	4.43E-03	13,332	3.32E-07
Total		0.3430		686.1	0.2932	0.0369		

* 2026 town home construction includes 2027 emissions (1 month)

Modeled Construction Hours

hr/day = 9 (7am - 4pm Mon-Fri)
 days/yr = 260
 hours/year = 2340

PM2.5 Fugitive Dust Emissions for Modeling - Unmitigated

Construction Year	Activity	Area Source	Area (ton/year)	PM2.5 Emissions			Modeled Area (m ²)	PM2.5 Emission Rate (g/s/m ²)
				(lb/yr)	(lb/hr)	(g/s)		
2024	Infrastructure	FUG_I24	0.0115	23.0	0.00982	1.24E-03	92,950	1.33E-08
2024	Building 1 Const	FUG_B124	0.0031	6.1	0.00261	3.29E-04	13,257	2.48E-08
2025	Building 1 Const	FUG_B125	0.0037	7.4	0.00315	3.97E-04	13,257	3.00E-08
2024	Town Homes Const	FUG_TH24	0.0019	3.8	0.00162	2.04E-04	30,181	6.77E-09
2025	Town Homes Const	FUG_TH24	0.0025	5.0	0.00215	2.71E-04	30,181	8.98E-09
2026	Town Homes Const*	FUG_TH24	0.0027	5.3	0.00228	2.87E-04	30,181	9.52E-09
2024	Affordable Const	FUG_AH24	0.0007	1.4	0.00061	7.66E-05	6,392	1.20E-08
2025	Affordable Const	FUG_AH25	0.0012	2.4	0.00101	1.27E-04	6,392	1.99E-08
2024	Building 2 Const	FUG_B224	0.0012	2.4	0.00103	1.30E-04	14,723	8.83E-09
2025	Building 2 Const	FUG_B225	0.0044	8.7	0.00372	4.69E-04	14,723	3.18E-08
2026	Building 2 Const	FUG_B226	0.0038	7.6	0.00323	4.07E-04	14,723	2.76E-08
2026	Building 3 Const	FUG_B326	0.0031	6.3	0.00267	3.37E-04	13,332	2.53E-08
2027	Building 3 Const	FUG_B327	0.0038	7.6	0.00323	4.07E-04	13,332	3.05E-08
Total			0.0435	86.9	0.0371	0.0047		

* 2026 town home construction includes 2027 emissions (1 month)

Modeled Construction Hours

hr/day = 9 (7am - 4pm Mon-Fri)
 days/yr = 260
 hours/year = 2340

DPM Construction Emissions and Modeling Emission Rates - With Mitigation

Construction Year	Activity	DPM (ton/year)	Area Source	DPM Emissions			Modeled Area (m ²)	DPM Emission Rate (g/s/m ²)
				(lb/yr)	(lb/hr)	(g/s)		
2024	Infrastructure	0.0044	DPM_I24	8.9	0.00379	4.77E-04	92950	5.13E-09
2024	Building 1 Const	0.0043	DPM_B124	8.6	0.00368	4.64E-04	13,257	3.50E-08
2025	Building 1 Const	0.0073	DPM_B125	14.6	0.00626	7.89E-04	13,257	5.95E-08
2024	Town Homes Const	0.0023	DPM_TH24	4.6	0.00195	2.46E-04	30,181	8.14E-09
2025	Town Homes Const	0.0034	DPM_TH25	6.9	0.00293	3.70E-04	30,181	1.22E-08
2026	Town Homes Const*	0.0036	DPM_TH26	7.2	0.00306	3.86E-04	30,181	1.28E-08
2024	Affordable Const	0.0018	DPM_AH24	3.7	0.00156	1.97E-04	6,392	3.08E-08
2025	Affordable Const	0.0051	DPM_AH25	10.3	0.00438	5.52E-04	6,392	8.64E-08
2024	Building 2 Const	0.0016	DPM_B224	3.2	0.00138	1.73E-04	14,723	1.18E-08
2025	Building 2 Const	0.0064	DPM_B225	12.8	0.00548	6.91E-04	14,723	4.69E-08
2026	Building 2 Const	0.0069	DPM_B226	13.7	0.00586	7.39E-04	14,723	5.02E-08
2026	Building 3 Const	0.0044	DPM_B326	8.8	0.00374	4.72E-04	13,332	3.54E-08
2027	Building 3 Const	0.0074	DPM_B327	14.8	0.00631	7.95E-04	13,332	5.97E-08
Total		0.0590		117.9	0.0504	0.0064		

* 2026 town home construction includes 2027 emissions (1 month)

Modeled Construction Hours

hr/day = 9 (7am - 4pm Mon-Fri)
 days/yr = 260
 hours/year = 2340

PM2.5 Fugitive Dust Construction Emissions for Modeling - With Mitigation

Construction Year	Activity	Area Source	PM2.5 Emissions			Modeled Area (m ²)	PM2.5 Emission Rate (g/s/m ²)	
			(ton/year)	(lb/yr)	(lb/hr)			(g/s)
2024	Infrastructure	FUG_I24	0.0054	10.7	0.00459	5.78E-04	92,950	6.22E-09
2024	Building 1 Const	FUG_B124	0.0030	6.0	0.00256	3.23E-04	13,257	2.44E-08
2025	Building 1 Const	FUG_B125	0.0037	7.4	0.00315	3.97E-04	13,257	3.00E-08
2024	Town Homes Const	FUG_TH24	0.0019	3.8	0.00162	2.04E-04	30,181	6.77E-09
2025	Town Homes Const	FUG_TH24	0.0025	5.0	0.00215	2.71E-04	30,181	8.98E-09
2026	Town Homes Const*	FUG_TH24	0.0027	5.3	0.00228	2.87E-04	30,181	9.52E-09
2024	Affordable Const	FUG_AH24	0.0007	1.3	0.00056	7.02E-05	6,392	1.10E-08
2025	Affordable Const	FUG_AH25	0.0012	2.4	0.00101	1.27E-04	6,392	1.99E-08
2024	Building 2 Const	FUG_B224	0.0011	2.3	0.00098	1.24E-04	14,723	8.39E-09
2025	Building 2 Const	FUG_B225	0.0044	8.7	0.00372	4.69E-04	14,723	3.18E-08
2026	Building 2 Const	FUG_B226	0.0038	7.6	0.00323	4.07E-04	14,723	2.76E-08
2026	Building 3 Const	FUG_B326	0.0031	6.1	0.00262	3.31E-04	13,332	2.48E-08
2027	Building 3 Const	FUG_B327	0.0038	7.6	0.00323	4.07E-04	13,332	3.05E-08
Total			0.0371	74.2	0.0317	0.0040		

* 2026 town home construction includes 2027 emissions (1 month)

Modeled Construction Hours

hr/day = 9 (7am - 4pm Mon-Fri)
 days/yr = 260
 hours/year = 2340

**681 E Trimble/Seeley-Construction DPM/PM2.5 Modeling Information
 AERMOD Risk Modeling Parameters and Maximum Concentrations
 Construction Impacts - Unmitigated Emissions
 Off-Site Residential Receptors, 1st Floor (1.5 meter receptor heights)**

Receptor Information

Number of Receptors 362
 Receptor Height = 1.5 meters
 Receptor spacing = variable, at residential locations

Meteorological Conditions

San Jose Airport BAAQMD Hourly Data 2013-2017
 Land Use Classification Urban
 Wind speed = variable
 Wind direction = variable

MEI Maximum Concentrations

Emission Period	DPM Concentration ($\mu\text{g}/\text{m}^3$)
2024 - Construction	0.02699
2025 - Construction	0.02529
2026 - Construction	0.02147
2027 - Construction	0.00278

**681 E Trimble/Seeley-Construction DPM/PM2.5 Modeling Information
 AERMOD Risk Modeling Parameters and Maximum Concentrations
 Construction Impacts - Unmitigated Emissions
 Off-Site Residential Receptors, 2nd Floor (4.6 meter receptor heights)**

Receptor Information

Number of Receptors 362
 Receptor Height = 4.6 meters
 Receptor spacing = variable, at residential locations

Meteorological Conditions

San Jose Airport BAAQMD Hourly Data 2013-2017
 Land Use Classification Urban
 Wind speed = variable
 Wind direction = variable

MEI Maximum Concentrations

Emission Period	DPM Concentration ($\mu\text{g}/\text{m}^3$)
2024 - Construction	0.0260
2025 - Construction	0.02425
2026 - Construction	0.02063
2027 - Construction	0.00266

681 E Trimble/Seeley Residential, San Jose - Construction Impacts
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated
Off-Site Residential Receptors, 1st Floor (1.5 meter receptor heights)
Residential Exposure (30-year)

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-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00

Age -->	Infant/Child			Adult
	3rd Trimester	0 - <2	2 - 16	16 - 70
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

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information			Maximum	
				Age Sensitivity Factor	Annual DPM Conc. (ug/m3)	DPM Cancer Risk (per million)	Hazard Index	Total PM2.5
3rd Trimester	2024	0.25	-0.25 - 0*	10	0.0270	0.37	-	-
1	2024	1	1	10	0.0270	4.43	0.0054	0.035
2	2025	1	2	10	0.0253	4.15	0.0051	0.029
3	2026	1	3	3	0.0215	0.56	0.0043	0.025
4	2027	1	4	3	0.0028	0.07	0.0006	0.015
5	2028	1	5	3	0.0000	0.00		
6	2029	1	6	3	0.0000	0.00		
7	2030	1	7	3	0.0000	0.00		
8	2031	1	8	3	0.0000	0.00		
9	2032	1	9	3	0.0000	0.00		
10	2033	1	10	3	0.0000	0.00		
11	2034	1	11	3	0.0000	0.00		
12	2035	1	12	3	0.0000	0.00		
13	2036	1	13	3	0.0000	0.00		
14	2037	1	14	3	0.0000	0.00		
15	2038	1	15	3	0.0000	0.00		
16	2039	1	16	3	0.0000	0.00		
17	2040	1	17	1	0.0000	0.000		
18	2041	1	18	1	0.0000	0.000		
19	2042	1	19	1	0.0000	0.000		
20	2043	1	20	1	0.0000	0.000		
21	2044	1	21	1	0.0000	0.000		
22	2045	1	22	1	0.0000	0.000		
23	2046	1	23	1	0.0000	0.000		
24	2047	1	24	1	0.0000	0.000		
25	2048	1	25	1	0.0000	0.000		
26	2049	1	26	1	0.0000	0.000		
27	2050	1	27	1	0.0000	0.000		
28	2051	1	28	1	0.0000	0.000		
29	2052	1	29	1	0.0000	0.000		
30	2053	1	30	1	0.0000	0.000		
Total Increased Cancer Risk						9.58		

* Third trimester of pregnancy

681 E Trimble/Seeley Residential, San Jose - Construction Impacts
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated
Off-Site Residential Receptors, 2nd Floor (4.6 meter receptor heights)
Residential Exposure (30-year)

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-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00

Age -->	Infant/Child			Adult
	3rd Trimester	0 - <2	2 - 16	16 - 70
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

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information			Maximum	
				Age Sensitivity Factor	Annual DPM Conc. (ug/m3)	DPM Cancer Risk (per million)	Hazard Index	Total PM2.5
3rd Trimester	2024	0.25	-0.25 - 0*	10	0.0260	0.35	-	-
1	2024	1	1	10	0.0260	4.28	0.0052	0.032
2	2025	1	2	10	0.0243	3.98	0.0049	0.027
3	2026	1	3	3	0.0206	0.53	0.0041	0.023
4	2027	1	4	3	0.0027	0.07	0.0005	0.014
5	2028	1	5	3	0.0000	0.00		
6	2029	1	6	3	0.0000	0.00		
7	2030	1	7	3	0.0000	0.00		
8	2031	1	8	3	0.0000	0.00		
9	2032	1	9	3	0.0000	0.00		
10	2033	1	10	3	0.0000	0.00		
11	2034	1	11	3	0.0000	0.00		
12	2035	1	12	3	0.0000	0.00		
13	2036	1	13	3	0.0000	0.00		
14	2037	1	14	3	0.0000	0.00		
15	2038	1	15	3	0.0000	0.00		
16	2039	1	16	3	0.0000	0.00		
17	2040	1	17	1	0.0000	0.000		
18	2041	1	18	1	0.0000	0.000		
19	2042	1	19	1	0.0000	0.000		
20	2043	1	20	1	0.0000	0.000		
21	2044	1	21	1	0.0000	0.000		
22	2045	1	22	1	0.0000	0.000		
23	2046	1	23	1	0.0000	0.000		
24	2047	1	24	1	0.0000	0.000		
25	2048	1	25	1	0.0000	0.000		
26	2049	1	26	1	0.0000	0.000		
27	2050	1	27	1	0.0000	0.000		
28	2051	1	28	1	0.0000	0.000		
29	2052	1	29	1	0.0000	0.000		
30	2053	1	30	1	0.0000	0.000		
Total Increased Cancer Risk						9.21		

* Third trimester of pregnancy

681 E Trimble/Seeley-Construction DPM/PM2.5 Modeling Information
AERMOD Risk Modeling Parameters and Maximum Concentrations
Construction Impacts - Mitigated Emissions
Off-Site Residential Receptors, 1st Floor (1.5 meter receptor heights)

Receptor Information

Number of Receptors 362
Receptor Height = 1.5 meters
Receptor spacing = variable, at residential locations

Meteorological Conditions

San Jose Airport BAAQMD Hourly Data 2013-2017
Land Use Classification Urban
Wind speed = variable
Wind direction = variable

MEI Maximum Concentrations

Emission Period	DPM Concentration ($\mu\text{g}/\text{m}^3$)
2024 - Construction	0.00388
2025 - Construction	0.00405
2026 - Construction	0.00348
2027 - Construction	0.00050

681 E Trimble/Seeley Residential, San Jose - Construction Impacts
Maximum DPM Cancer Risk Calculations From Construction - Mitigated
Off-Site Residential Receptors, 1st Floor (1.5 meter receptor heights)
Residential Exposure (30-year)

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-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00

Age -->	Infant/Child			Adult
	3rd Trimester	0 - <2	2 - 16	16 - 70
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

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information			Maximum	
				Age Sensitivity Factor	Annual DPM Conc. (ug/m3)	DPM Cancer Risk (per million)	Hazard Index	Total PM2.5
3rd Trimester	2024	0.25	-0.25 - 0*	10	0.0039	0.05	-	-
1	2024	1	1	10	0.0039	0.64	0.0008	0.009
2	2025	1	2	10	0.0041	0.67	0.0008	0.008
3	2026	1	3	3	0.0035	0.09	0.0007	0.007
4	2027	1	4	3	0.0005	0.01	0.0001	0.004
5	2028	1	5	3	0.0000	0.00		
6	2029	1	6	3	0.0000	0.00		
7	2030	1	7	3	0.0000	0.00		
8	2031	1	8	3	0.0000	0.00		
9	2032	1	9	3	0.0000	0.00		
10	2033	1	10	3	0.0000	0.00		
11	2034	1	11	3	0.0000	0.00		
12	2035	1	12	3	0.0000	0.00		
13	2036	1	13	3	0.0000	0.00		
14	2037	1	14	3	0.0000	0.00		
15	2038	1	15	3	0.0000	0.00		
16	2039	1	16	3	0.0000	0.00		
17	2040	1	17	1	0.0000	0.000		
18	2041	1	18	1	0.0000	0.000		
19	2042	1	19	1	0.0000	0.000		
20	2043	1	20	1	0.0000	0.000		
21	2044	1	21	1	0.0000	0.000		
22	2045	1	22	1	0.0000	0.000		
23	2046	1	23	1	0.0000	0.000		
24	2047	1	24	1	0.0000	0.000		
25	2048	1	25	1	0.0000	0.000		
26	2049	1	26	1	0.0000	0.000		
27	2050	1	27	1	0.0000	0.000		
28	2051	1	28	1	0.0000	0.000		
29	2052	1	29	1	0.0000	0.000		
30	2053	1	30	1	0.0000	0.000		
Total Increased Cancer Risk						1.46		

* Third trimester of pregnancy

File Name: Santa Clara (SF) - 2028 - Annual-BAAQMD Trucks.EF
 CT-EMFAC2017 Version: 1.0.2.27401
 Run Date: 7/11/2022 17:38
 Area: Santa Clara (SF)
 Analysis Year: 2028
 Season: Annual

Vehicle Category	VTM	Diesel VMT	Gas VMT
	Fraction Across Category	Fraction Within Category	Fraction Within Category
Truck 1	0.015	0.517	0.483
Truck 2	0.02	0.933	0.05
Non-Truck	0.965	0.015	0.945

Road Type: Major/Collector
 Silt Loading Factor: CARB 0.032 g/m2
 Precipitation Correction: CARB P = 64 days N = 365 days

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

Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph
PM2.5	0.007245	0.0047	0.003191	0.002285	0.001735	0.001403	0.00121	0.001113	0.001088	0.001124	0.001215
TOG	0.150483	0.098844	0.066333	0.046902	0.035558	0.028458	0.023905	0.021059	0.019449	0.018833	0.01913
Diesel PM	0.000638	0.000541	0.000429	0.000349	0.000305	0.000289	0.000295	0.000321	0.000366	0.000429	0.00051
DEOG	0.011709	0.008473	0.004414	0.002154	0.001483	0.001172	0.000963	0.000822	0.000734	0.00069	0.000684

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

Pollutant Name	Emission Factor
TOG	1.12594

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

Pollutant Name	Emission Factor
PM2.5	0.002109

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

Pollutant Name	Emission Factor
PM2.5	0.016793

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

Pollutant Name	Emission Factor
PM2.5	0.014805

END

681 E Seely, San Jose, CA - Roadway Modeling
 Seely Avenue - Project Traffic
 DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
 Year = 2028

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
DPM_SELY	Seely Avenue	NW-SE	2	645	0.40	7.3	24.0	3.4	30	7,800

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle (g/VMT)	0.00031			

Emission Factors from CT-EMFAC2017

2028 Hourly Traffic Volumes and DPM Emissions - DPM_SELY

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.96%	309	1.05E-05	9	6.46%	504	1.71E-05	17	5.61%	438	1.49E-05
2	2.66%	207	7.04E-06	10	7.36%	574	1.95E-05	18	3.24%	253	8.59E-06
3	2.88%	225	7.64E-06	11	6.40%	499	1.70E-05	19	2.22%	173	5.87E-06
4	3.28%	256	8.69E-06	12	6.97%	543	1.85E-05	20	0.86%	67	2.27E-06
5	2.09%	163	5.55E-06	13	6.23%	486	1.65E-05	21	3.06%	239	8.12E-06
6	3.34%	260	8.84E-06	14	6.17%	482	1.64E-05	22	4.25%	332	1.13E-05
7	6.06%	473	1.61E-05	15	5.10%	398	1.35E-05	23	2.55%	199	6.75E-06
8	4.54%	354	1.20E-05	16	3.86%	301	1.02E-05	24	0.85%	66	2.25E-06
Total										7,800	

681 E Seely, San Jose, CA - Roadway Modeling
 Seely Avenue - Project Traffic
 DPM Modeling - Roadway Links, Traffic Volumes, and DPM Emissions
 Year = 2028

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
DPM_SELY	Seely Avenue	NW-SE	2	645	0.40	7.3	24.0	3.4	30	7,800

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle (g/VMT)	0.00031			

Emission Factors from CT-EMFAC2017

2028 Hourly Traffic Volumes and DPM Emissions - DPM_SELY

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.96%	309	1.05E-05	9	6.46%	504	1.71E-05	17	5.61%	438	1.49E-05
2	2.66%	207	7.04E-06	10	7.36%	574	1.95E-05	18	3.24%	253	8.59E-06
3	2.88%	225	7.64E-06	11	6.40%	499	1.70E-05	19	2.22%	173	5.87E-06
4	3.28%	256	8.69E-06	12	6.97%	543	1.85E-05	20	0.86%	67	2.27E-06
5	2.09%	163	5.55E-06	13	6.23%	486	1.65E-05	21	3.06%	239	8.12E-06
6	3.34%	260	8.84E-06	14	6.17%	482	1.64E-05	22	4.25%	332	1.13E-05
7	6.06%	473	1.61E-05	15	5.10%	398	1.35E-05	23	2.55%	199	6.75E-06
8	4.54%	354	1.20E-05	16	3.86%	301	1.02E-05	24	0.85%	66	2.25E-06
Total										7,800	

681 E Seely, San Jose, CA - Roadway Modeling
 Seely Avenue - Project Traffic
 PM2.5 Modeling - Roadway Links, Traffic Volumes, and PM2.5 Emissions
 Year = 2028

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
PM25_SELY	Seely Avenue	NW-SE	2	645	0.40	7.3	24	1.3	30	7,800

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle (g/VMT)	0.001735			

Emission Factors from CT-EMFAC2017

2028 Hourly Traffic Volumes and PM2.5 Emissions - PM25_SELY

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	90	1.73E-05	9	7.11%	555	1.07E-04	17	7.39%	577	1.11E-04
2	0.42%	33	6.30E-06	10	4.39%	342	6.61E-05	18	8.18%	638	1.23E-04
3	0.40%	32	6.10E-06	11	4.66%	364	7.03E-05	19	5.70%	445	8.59E-05
4	0.26%	20	3.92E-06	12	5.89%	459	8.88E-05	20	4.27%	333	6.44E-05
5	0.49%	38	7.42E-06	13	6.15%	480	9.28E-05	21	3.25%	254	4.91E-05
6	0.90%	70	1.36E-05	14	6.04%	471	9.10E-05	22	3.30%	257	4.98E-05
7	3.79%	295	5.71E-05	15	7.01%	547	1.06E-04	23	2.46%	192	3.71E-05
8	7.76%	605	1.17E-04	16	7.14%	557	1.08E-04	24	1.87%	146	2.81E-05
Total										7,800	

681 E Seely, San Jose, CA - Roadway Modeling
 Seely Avenue - Project Traffic
 TOG Exhaust Modeling - Roadway Links, Traffic Volumes, and TOG Exhaust Emissions
 Year = 2028

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
TEXH_SELY	Seely Avenue	NW-SE	2	645	0.40	7.3	24	1.3	30	7,800

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	25			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.03556			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.00148			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.03408			

Emission Factors from CT-EMFAC2017

2028 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_SELY

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	90	3.40E-04	9	7.11%	555	2.11E-03	17	7.39%	577	2.19E-03
2	0.42%	33	1.24E-04	10	4.39%	342	1.30E-03	18	8.18%	638	2.42E-03
3	0.40%	32	1.20E-04	11	4.66%	364	1.38E-03	19	5.70%	445	1.69E-03
4	0.26%	20	7.70E-05	12	5.89%	459	1.74E-03	20	4.27%	333	1.27E-03
5	0.49%	38	1.46E-04	13	6.15%	480	1.82E-03	21	3.25%	254	9.64E-04
6	0.90%	70	2.67E-04	14	6.04%	471	1.79E-03	22	3.30%	257	9.77E-04
7	3.79%	295	1.12E-03	15	7.01%	547	2.08E-03	23	2.46%	192	7.29E-04
8	7.76%	605	2.30E-03	16	7.14%	557	2.11E-03	24	1.87%	146	5.52E-04
Total										7,800	

681 E Seely, San Jose, CA - Roadway Modeling
 Seely Avenue - Project Traffic
 TOG Evaporative Emissions Modeling - Roadway Links, Traffic Volumes, and TOG Evaporative Emissions
 Year = 2028

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
TEVAP_SELY	Seely Avenue	NW-SE	2	645	0.40	7.3	24	1.3	30	7,800

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Emissions per Vehicle per Hour (g/hour)	1.12594			
Emissions per Vehicle per Mile (g/VMT)	0.04504			

Emission Factors from CT-EMFAC2017

2028 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_SELY

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	90	4.50E-04	9	7.11%	555	2.78E-03	17	7.39%	577	2.89E-03
2	0.42%	33	1.63E-04	10	4.39%	342	1.72E-03	18	8.18%	638	3.20E-03
3	0.40%	32	1.58E-04	11	4.66%	364	1.83E-03	19	5.70%	445	2.23E-03
4	0.26%	20	1.02E-04	12	5.89%	459	2.30E-03	20	4.27%	333	1.67E-03
5	0.49%	38	1.93E-04	13	6.15%	480	2.41E-03	21	3.25%	254	1.27E-03
6	0.90%	70	3.52E-04	14	6.04%	471	2.36E-03	22	3.30%	257	1.29E-03
7	3.79%	295	1.48E-03	15	7.01%	547	2.74E-03	23	2.46%	192	9.63E-04
8	7.76%	605	3.04E-03	16	7.14%	557	2.80E-03	24	1.87%	146	7.30E-04
Total										7,800	

681 E Seely, San Jose, CA - Roadway Modeling
 Seely Avenue - Project Traffic
 Fugitive Road PM2.5 Modeling - Roadway Links, Traffic Volumes, and Fugitive Road PM2.5 Emissions
 Year = 2028

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
FUG_SELY	Seely Avenue	NW-SE	2	645	0.40	7.3	24	1.3	30	7,800

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	25			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01679			
Road Dust - Emissions per Vehicle (g/VMT)	0.01481			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03371			

Emission Factors from CT-EMFAC2017

2028 Hourly Traffic Volumes and Fugitive PM2.5 Emissions - FUG_SELY

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	90	3.37E-04	9	7.11%	555	2.08E-03	17	7.39%	577	2.16E-03
2	0.42%	33	1.22E-04	10	4.39%	342	1.28E-03	18	8.18%	638	2.40E-03
3	0.40%	32	1.19E-04	11	4.66%	364	1.37E-03	19	5.70%	445	1.67E-03
4	0.26%	20	7.61E-05	12	5.89%	459	1.72E-03	20	4.27%	333	1.25E-03
5	0.49%	38	1.44E-04	13	6.15%	480	1.80E-03	21	3.25%	254	9.53E-04
6	0.90%	70	2.64E-04	14	6.04%	471	1.77E-03	22	3.30%	257	9.67E-04
7	3.79%	295	1.11E-03	15	7.01%	547	2.05E-03	23	2.46%	192	7.21E-04
8	7.76%	605	2.27E-03	16	7.14%	557	2.09E-03	24	1.87%	146	5.47E-04
Total										7,800	

**681 E Trimble/Seeley Residential - Construction & Operation Sources - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
Maximum Cancer Risk Calculations for Project Construction and Operation- Unmitigated
Off-Site Residential Receptors - 1.5 meter Receptor Heights**

Receptor Information

Number of Receptors 362
Receptor Height = 1st floor level
Receptor distances = at sensitive residential receptor locations

Meteorological Conditions

BAAQMD San Jose Airport 2013-2017
Land Use Classification urban
Wind speed = variable
Wind direction = variable

Off-Site MEI Maximum Concentrations

Emission Years	Concentration ($\mu\text{g}/\text{m}^3$)		
	DPM	Exhaust TOG	Evaporative TOG
2024 - Construction	0.02699	0.0000	0.0000
2025 - Construction	0.02529	0.0000	0.0000
2026 - Construction	0.02147	0.0000	0.0000
2027 - Construction	0.00278	0.0000	0.0000
2028-2053 - Roads	0.00005	0.0042	0.0056
Emission Year	Maximum Total PM2.5 Concentration ($\mu\text{g}/\text{m}^3$)*		
2028-2053	0.14		

* Maximum PM2.5 concentration from project traffic

681 E Trimble/Seeley Residential, San Jose - Project Impacts
Maximum Cancer Risk Calculations for Project Construction and Operation- Unmitigated
Off-Site Residential Receptors - 1.5 meter Receptor Heights
Residential Exposure (30-year)

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-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)
 10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

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

Age -->	Infant/Child			Adult
	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
ED =	0.25	2	14	14
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

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information							
				Age Sensitivity Factor	Annual TAC Conc (ug/m3)			Cancer Risk (per million)			Total
					DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	
3rd Trimester	2024	0.25	-0.25 - 0*	10	0.0270	0.0000	0.0000	0.367	0.0000	0.0000	0.37
1	2024	1	1	10	0.0270	0.0000	0.0000	4.43	0.0000	0.0000	4.43
2	2025	1	2	10	0.0253	0.0000	0.0000	4.15	0.0000	0.0000	4.154
3	2026	1	3	3	0.0215	0.0000	0.0000	0.56	0.0000	0.0000	0.555
4	2027	1	4	3	0.0028	0.0000	0.0000	0.07	0.0000	0.0000	0.072
5	2028	1	5	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
6	2029	1	6	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
7	2030	1	7	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
8	2031	1	8	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
9	2032	1	9	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
10	2033	1	10	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
11	2034	1	11	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
12	2035	1	12	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
13	2036	1	13	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
14	2037	1	14	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
15	2038	1	15	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
16	2039	1	16	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
17	2040	1	17	1	0.0001	0.0042	0.0056	0.00	0.0001	0.0000	0.000
18	2041	1	18	1	0.0001	0.0042	0.0056	0.00	0.0001	0.0000	0.000
19	2042	1	19	1	0.0001	0.0042	0.0056	0.00	0.0001	0.0000	0.000
20	2043	1	20	1	0.0001	0.0042	0.0056	0.00	0.0001	0.0000	0.000
21	2044	1	21	1	0.0001	0.0042	0.0056	0.00	0.0001	0.0000	0.000
22	2045	1	22	1	0.0001	0.0042	0.0056	0.00	0.0001	0.0000	0.000
23	2046	1	23	1	0.0001	0.0042	0.0056	0.00	0.0001	0.0000	0.000
24	2047	1	24	1	0.0001	0.0042	0.0056	0.00	0.0001	0.0000	0.000
25	2048	1	25	1	0.0001	0.0042	0.0056	0.00	0.0001	0.0000	0.000
26	2049	1	26	1	0.0001	0.0042	0.0056	0.00	0.0001	0.0000	0.000
27	2050	1	27	1	0.0001	0.0042	0.0056	0.00	0.0001	0.0000	0.000
28	2051	1	28	1	0.0001	0.0042	0.0056	0.00	0.0001	0.0000	0.000
29	2052	1	29	1	0.0001	0.0042	0.0056	0.00	0.0001	0.0000	0.000
30	2053	1	30	1	0.0001	0.0042	0.0056	0.00	0.0001	0.0000	0.000
Total Increased Cancer Risk								9.5984	0.0084	0.0007	9.61

* Third trimester of pregnancy

**681 E Trimble/Seeley Residential - Construction & Operation Sources - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
Maximum Cancer Risk Calculations for Project Construction and Operation- Mitigated
Off-Site Residential Receptors - 1.5 meter Receptor Heights**

Receptor Information

Number of Receptors 362
Receptor Height = 1st floor level
Receptor distances = at sensitive residential receptor locations

Meteorological Conditions

BAAQMD San Jose Airport 2013-2017
Land Use Classification urban
Wind speed = variable
Wind direction = variable

Off-Site MEI Maximum Concentrations

Emission Years	Concentration (µg/m ³)		
	DPM	Exhaust TOG	Evaporative TOG
2024 - Construction	0.00388	0.0000	0.0000
2025 - Construction	0.00405	0.0000	0.0000
2026 - Construction	0.00348	0.0000	0.0000
2027 - Construction	0.00050	0.0000	0.0000
2028-2053 - Roads	0.00005	0.0042	0.0056
Emission Year	Maximum Total PM2.5 Concentration (µg/m3)*		
2028-2053	0.14		

* Maximum PM2.5 concentration from project traffic

681 E Trimble/Seeley Residential, San Jose - Project Impacts
Maximum Cancer Risk Calculations for Project Construction and Operation- Mitigated
Off-Site Residential Receptors - 1.5 meter Receptor Heights
Residential Exposure (30-year)

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-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)
 10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

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

Age -->	Infant/Child			Adult
	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
ED =	0.25	2	14	14
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

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information							
				Age Sensitivity Factor	Annual TAC Conc (ug/m3)			Cancer Risk (per million)			Total
					DPM	Exhaust TOG	Evaporative TOG	DPM	Exhaust TOG	Evaporative TOG	
3rd Trimester	2024	0.25	-0.25 - 0*	10	0.0039	0.0000	0.0000	0.053	0.0000	0.0000	0.05
1	2024	1	1	10	0.0039	0.0000	0.0000	0.64	0.0000	0.0000	0.64
2	2025	1	2	10	0.0041	0.0000	0.0000	0.67	0.0000	0.0000	0.665
3	2026	1	3	3	0.0035	0.0000	0.0000	0.09	0.0000	0.0000	0.090
4	2027	1	4	3	0.0005	0.0000	0.0000	0.01	0.0000	0.0000	0.013
5	2028	1	5	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
6	2029	1	6	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
7	2030	1	7	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
8	2031	1	8	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
9	2032	1	9	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
10	2033	1	10	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
11	2034	1	11	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
12	2035	1	12	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
13	2036	1	13	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
14	2037	1	14	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
15	2038	1	15	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
16	2039	1	16	3	0.0001	0.0042	0.0056	0.00	0.0006	0.0000	0.002
17	2040	1	17	1	0.0001	0.0042	0.0056	0.000	0.0001	0.0000	0.000
18	2041	1	18	1	0.0001	0.0042	0.0056	0.000	0.0001	0.0000	0.000
19	2042	1	19	1	0.0001	0.0042	0.0056	0.000	0.0001	0.0000	0.000
20	2043	1	20	1	0.0001	0.0042	0.0056	0.000	0.0001	0.0000	0.000
21	2044	1	21	1	0.0001	0.0042	0.0056	0.000	0.0001	0.0000	0.000
22	2045	1	22	1	0.0001	0.0042	0.0056	0.000	0.0001	0.0000	0.000
23	2046	1	23	1	0.0001	0.0042	0.0056	0.000	0.0001	0.0000	0.000
24	2047	1	24	1	0.0001	0.0042	0.0056	0.000	0.0001	0.0000	0.000
25	2048	1	25	1	0.0001	0.0042	0.0056	0.000	0.0001	0.0000	0.000
26	2049	1	26	1	0.0001	0.0042	0.0056	0.000	0.0001	0.0000	0.000
27	2050	1	27	1	0.0001	0.0042	0.0056	0.000	0.0001	0.0000	0.000
28	2051	1	28	1	0.0001	0.0042	0.0056	0.000	0.0001	0.0000	0.000
29	2052	1	29	1	0.0001	0.0042	0.0056	0.000	0.0001	0.0000	0.000
30	2053	1	30	1	0.0001	0.0042	0.0056	0.000	0.0001	0.0000	0.000
Total Increased Cancer Risk								1.4757	0.0084	0.0007	1.48

* Third trimester of pregnancy

Health Risks at Off-Site Receptors From Generator Operation

681 E. Trimble, San Jose, CA - AERMOD Modeling Parameters
Project 670 Horsepower Diesel Emergency Generator
Off-Site Residential Receptors - 1st Floor Receptor Heights (1.5 meters)

DPM Emission Rates				
Source Type	Annual Operation (hr)	DPM Emissions		
		Daily (lb/day)	Annual (lb/yr)	Annual (tons/yr)
Generator	50	0.0221	8.08	4.04E-03

Modeling Information	
Model:	AERMOD
Source	Diesel Engine - 670 hp emergency generator
Source Type	Point
Receptor Spacing	at off-site residences
Receptor Height	1.5 meters
Meteorological Data	2013-2017 BAAQMD San Jose Airport data
Point Source Stack Parameters	
Stack Height** (ft)	12
Stack Diameter** (ft)	0.60
Stack Exit Velocity** (ft/sec)	149
Exhaust Temperature** (F)	872
Annual Emission Rate (lb/year)	8.08
Hourly Emission Rate (lb/hr)	9.22E-04
Hourly Emission Rate (g/sec)	1.16E-04

** BAAQMD default generator parameters

681 E. Trimble, San Jose, CA - DPM Cancer Risks
Project 670 Horsepower Diesel Emergency Generator
Off-Site Residential Receptors - 1st Floor Receptor Heights (1.5 meters)
26-Year Exposure at Off-Site Project Cancer Risk MEI

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-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)
 10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00

Age -->	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 +
Parameter				
ASF =	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
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

Off-Site Project MEI Cancer Risk Receptor

Exposure Duration (years)	Age	Age Sensitivity Factor	DPM Annual Conc (ug/m3)	DPM Cancer Risk (per million)
0	-0.25 - 0*	10	0.00000	0.00
0	0 - 2	10	0.00000	0.00
12	2 - 16	3	0.00024	0.07
14	16+ ₋	1	0.00024	0.01
Total Increased Cancer Risk				0.08

* Third trimester of pregnancy

Attachment 5: Cumulative Community Risk from Existing TAC Sources

Attachment 5: Cumulative Community Risk from Existing TAC Sources

File Name: Santa Clara (SF) - 2024 - Annual-BAAQMD Trucks.EF
 CT-EMFAC2017 Version: 1.0.2.27401
 Run Date: 7/11/2022 17:37
 Area: Santa Clara (SF)
 Analysis Year: 2024
 Season: Annual

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.015	0.495	0.505
Truck 2	0.02	0.937	0.048
Non-Truck	0.965	0.014	0.955

Road Type: Major/Collector
 Silt Loading Factor: CARB 0.032 g/m2
 Precipitation Correction: CARB P = 64 days N = 365 days

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

Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph
PM2.5	0.008837	0.005727	0.003882	0.002774	0.002102	0.001693	0.001451	0.001324	0.001283	0.001313	0.001408
TOG	0.182802	0.119558	0.080373	0.056919	0.043051	0.034349	0.028781	0.025311	0.023359	0.022626	0.023011
Diesel PM	0.000842	0.000689	0.000532	0.000425	0.000365	0.000339	0.000339	0.000361	0.000404	0.000467	0.00055
DEOG	0.011829	0.008537	0.004556	0.002335	0.001644	0.00131	0.001086	0.000937	0.000846	0.000804	0.000807

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

Pollutant Name	Emission Factor
TOG	1.303551

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

Pollutant Name	Emission Factor
PM2.5	0.002108

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

Pollutant Name	Emission Factor
PM2.5	0.016805

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

Pollutant Name	Emission Factor
PM2.5	0.01484

END

681 E Seely, San Jose, CA - Roadway Modeling Emissions
 Montague Expressway - Background Traffic
 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
DPM_NBME	Northbound Montague Expy	NW-SW	4	809	0.50	14.6	48.0	3.4	40	31,280
DPM_SBME	Southbound Montague Expy	NW-SW	4	809	0.50	14.6	48.0	3.4	40	31,280
										62,560

Emission Factors - DPM

Speed Category Travel Speed (mph) Emissions per Vehicle (g/VMT)	1	2	3	4
	40	0.00036		

Emission Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and DPM Emissions - DPM_NBME

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.90%	1219	6.14E-05	9	6.42%	2008	1.01E-04	17	5.62%	1757	8.85E-05
2	2.58%	807	4.06E-05	10	7.34%	2294	1.16E-04	18	3.27%	1022	5.15E-05
3	2.87%	896	4.52E-05	11	6.42%	2008	1.01E-04	19	2.35%	735	3.70E-05
4	3.32%	1040	5.24E-05	12	6.88%	2151	1.08E-04	20	0.86%	269	1.35E-05
5	2.18%	681	3.43E-05	13	6.25%	1954	9.85E-05	21	3.09%	968	4.88E-05
6	3.38%	1058	5.33E-05	14	6.19%	1936	9.76E-05	22	4.13%	1291	6.50E-05
7	6.02%	1882	9.48E-05	15	5.10%	1595	8.04E-05	23	2.52%	789	3.97E-05
8	4.64%	1452	7.32E-05	16	3.78%	1183	5.96E-05	24	0.92%	287	1.45E-05
Total										31,280	

2024 Hourly Traffic Volumes Per Direction and DPM Emissions - DPM_SBME

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	3.90%	1219	6.14E-05	9	6.42%	2008	1.01E-04	17	5.62%	1757	8.85E-05
2	2.58%	807	4.06E-05	10	7.34%	2294	1.16E-04	18	3.27%	1022	5.15E-05
3	2.87%	896	4.52E-05	11	6.42%	2008	1.01E-04	19	2.35%	735	3.70E-05
4	3.32%	1040	5.24E-05	12	6.88%	2151	1.08E-04	20	0.86%	269	1.35E-05
5	2.18%	681	3.43E-05	13	6.25%	1954	9.85E-05	21	3.09%	968	4.88E-05
6	3.38%	1058	5.33E-05	14	6.19%	1936	9.76E-05	22	4.13%	1291	6.50E-05
7	6.02%	1882	9.48E-05	15	5.10%	1595	8.04E-05	23	2.52%	789	3.97E-05
8	4.64%	1452	7.32E-05	16	3.78%	1183	5.96E-05	24	0.92%	287	1.45E-05
Total										31,280	

681 E Seely, San Jose, CA - Roadway Modeling Emissions
 Montague Expressway - Background Traffic
 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
PM25_NBME	Northbound Montague Expy	NW-SW	4	809	0.50	14.6	48	1.3	40	31,280
PM25_SBME	Southbound Montague Expy	NW-SW	4	809	0.50	14.6	48	1.3	40	31,280
									Total	62,560

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle (g/VMT)	0.001324			

Emission Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and PM2.5 Emissions - PM25_NBME

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	360	6.66E-05	9	7.11%	2225	4.11E-04	17	7.39%	2310	4.27E-04
2	0.42%	131	2.41E-05	10	4.39%	1372	2.54E-04	18	8.18%	2557	4.73E-04
3	0.41%	127	2.35E-05	11	4.66%	1459	2.70E-04	19	5.70%	1781	3.29E-04
4	0.26%	82	1.51E-05	12	5.89%	1842	3.40E-04	20	4.27%	1337	2.47E-04
5	0.50%	156	2.89E-05	13	6.15%	1924	3.56E-04	21	3.26%	1019	1.88E-04
6	0.90%	283	5.22E-05	14	6.04%	1888	3.49E-04	22	3.30%	1031	1.91E-04
7	3.79%	1186	2.19E-04	15	7.01%	2194	4.06E-04	23	2.46%	770	1.42E-04
8	7.76%	2429	4.49E-04	16	7.14%	2233	4.13E-04	24	1.87%	584	1.08E-04
Total										31,280	

2024 Hourly Traffic Volumes Per Direction and PM2.5 Emissions - PM25_SBME

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	360	6.66E-05	9	7.11%	2225	4.11E-04	17	7.39%	2310	4.27E-04
2	0.42%	131	2.41E-05	10	4.39%	1372	2.54E-04	18	8.18%	2557	4.73E-04
3	0.41%	127	2.35E-05	11	4.66%	1459	2.70E-04	19	5.70%	1781	3.29E-04
4	0.26%	82	1.51E-05	12	5.89%	1842	3.40E-04	20	4.27%	1337	2.47E-04
5	0.50%	156	2.89E-05	13	6.15%	1924	3.56E-04	21	3.26%	1019	1.88E-04
6	0.90%	283	5.22E-05	14	6.04%	1888	3.49E-04	22	3.30%	1031	1.91E-04
7	3.79%	1186	2.19E-04	15	7.01%	2194	4.06E-04	23	2.46%	770	1.42E-04
8	7.76%	2429	4.49E-04	16	7.14%	2233	4.13E-04	24	1.87%	584	1.08E-04
Total										31,280	

681 E Seely, San Jose, CA - Roadway Modeling Emissions

Montague Expressway - Background Traffic

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
TEXH_NBME	Northbound Montague Expy	NW-SW	4	809	0.50	14.6	48	1.3	40	31,280
TEXH_SBME	Southbound Montague Expy	NW-SW	4	809	0.50	14.6	48	1.3	40	31,280
									Total	62,560

Emission Factors - TOG Exhaust

Speed Category Travel Speed (mph)	1	2	3	4
	All Vehicles TOG Emissions per Vehicle (g/VMT)	0.02531		
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.00094			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.02437			

Emission Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_NBME

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	360	1.23E-03	9	7.11%	2225	7.57E-03	17	7.39%	2310	7.86E-03
2	0.42%	131	4.45E-04	10	4.39%	1372	4.67E-03	18	8.18%	2557	8.70E-03
3	0.41%	127	4.32E-04	11	4.66%	1459	4.96E-03	19	5.70%	1781	6.06E-03
4	0.26%	82	2.78E-04	12	5.89%	1842	6.27E-03	20	4.27%	1337	4.55E-03
5	0.50%	156	5.32E-04	13	6.15%	1924	6.55E-03	21	3.26%	1019	3.47E-03
6	0.90%	283	9.62E-04	14	6.04%	1888	6.42E-03	22	3.30%	1031	3.51E-03
7	3.79%	1186	4.03E-03	15	7.01%	2194	7.47E-03	23	2.46%	770	2.62E-03
8	7.76%	2429	8.26E-03	16	7.14%	2233	7.60E-03	24	1.87%	584	1.99E-03
Total										31,280	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	360	1.23E-03	9	7.11%	2225	7.57E-03	17	7.39%	2310	7.86E-03
2	0.42%	131	4.45E-04	10	4.39%	1372	4.67E-03	18	8.18%	2557	8.70E-03
3	0.41%	127	4.32E-04	11	4.66%	1459	4.96E-03	19	5.70%	1781	6.06E-03
4	0.26%	82	2.78E-04	12	5.89%	1842	6.27E-03	20	4.27%	1337	4.55E-03
5	0.50%	156	5.32E-04	13	6.15%	1924	6.55E-03	21	3.26%	1019	3.47E-03
6	0.90%	283	9.62E-04	14	6.04%	1888	6.42E-03	22	3.30%	1031	3.51E-03
7	3.79%	1186	4.03E-03	15	7.01%	2194	7.47E-03	23	2.46%	770	2.62E-03
8	7.76%	2429	8.26E-03	16	7.14%	2233	7.60E-03	24	1.87%	584	1.99E-03
Total										31,280	

681 E Seely, San Jose, CA - Roadway Modeling Emissions

Montague Expressway - Background Traffic

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
TEVAP_NBME	Northbound Montague Expy	NW-SW	4	809	0.50	14.6	48	1.3	40	31,280
TEVAP_SBME	Southbound Montague Expy	NW-SW	4	809	0.50	14.6	48	1.3	40	31,280
									Total	62,560

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	40			
Emissions per Vehicle per Hour (g/hour)	1.30355			
Emissions per Vehicle per Mile (g/VMT)	0.03259			

Emission Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_NBME

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	360	1.64E-03	9	7.11%	2225	1.01E-02	17	7.39%	2310	1.05E-02
2	0.42%	131	5.94E-04	10	4.39%	1372	6.24E-03	18	8.18%	2557	1.16E-02
3	0.41%	127	5.78E-04	11	4.66%	1459	6.64E-03	19	5.70%	1781	8.10E-03
4	0.26%	82	3.72E-04	12	5.89%	1842	8.38E-03	20	4.27%	1337	6.08E-03
5	0.50%	156	7.11E-04	13	6.15%	1924	8.75E-03	21	3.26%	1019	4.64E-03
6	0.90%	283	1.29E-03	14	6.04%	1888	8.59E-03	22	3.30%	1031	4.69E-03
7	3.79%	1186	5.39E-03	15	7.01%	2194	9.98E-03	23	2.46%	770	3.50E-03
8	7.76%	2429	1.10E-02	16	7.14%	2233	1.02E-02	24	1.87%	584	2.66E-03
Total										31,280	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	360	1.64E-03	9	7.11%	2225	1.01E-02	17	7.39%	2310	1.05E-02
2	0.42%	131	5.94E-04	10	4.39%	1372	6.24E-03	18	8.18%	2557	1.16E-02
3	0.41%	127	5.78E-04	11	4.66%	1459	6.64E-03	19	5.70%	1781	8.10E-03
4	0.26%	82	3.72E-04	12	5.89%	1842	8.38E-03	20	4.27%	1337	6.08E-03
5	0.50%	156	7.11E-04	13	6.15%	1924	8.75E-03	21	3.26%	1019	4.64E-03
6	0.90%	283	1.29E-03	14	6.04%	1888	8.59E-03	22	3.30%	1031	4.69E-03
7	3.79%	1186	5.39E-03	15	7.01%	2194	9.98E-03	23	2.46%	770	3.50E-03
8	7.76%	2429	1.10E-02	16	7.14%	2233	1.02E-02	24	1.87%	584	2.66E-03
Total										31,280	

681 E Seely, San Jose, CA - Roadway Modeling Emissions

Montague Expressway - Background Traffic

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
FUG_NBME	Northbound Montague Expy	NW-SW	4	809	0.50	14.6	48	1.3	40	31,280
FUG_SBME	Southbound Montague Expy	NW-SW	4	809	0.50	14.6	48	1.3	40	31,280
									Total	62,560

Emission Factors - Fugitive PM2.5

Speed Category Travel Speed (mph)	1	2	3	4
40				
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681			
Road Dust - Emissions per Vehicle (g/VMT)	0.01484			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.03375			

Emission Factors from CT-EMFAC2017

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

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	360	1.70E-03	9	7.11%	2225	1.05E-02	17	7.39%	2310	1.09E-02
2	0.42%	131	6.16E-04	10	4.39%	1372	6.46E-03	18	8.18%	2557	1.20E-02
3	0.41%	127	5.98E-04	11	4.66%	1459	6.87E-03	19	5.70%	1781	8.39E-03
4	0.26%	82	3.85E-04	12	5.89%	1842	8.68E-03	20	4.27%	1337	6.30E-03
5	0.50%	156	7.36E-04	13	6.15%	1924	9.07E-03	21	3.26%	1019	4.80E-03
6	0.90%	283	1.33E-03	14	6.04%	1888	8.90E-03	22	3.30%	1031	4.86E-03
7	3.79%	1186	5.59E-03	15	7.01%	2194	1.03E-02	23	2.46%	770	3.63E-03
8	7.76%	2429	1.14E-02	16	7.14%	2233	1.05E-02	24	1.87%	584	2.75E-03
Total										31,280	

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

Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile	Hour	% Per Hour	VPH	g/mile
1	1.15%	360	1.70E-03	9	7.11%	2225	1.05E-02	17	7.39%	2310	1.09E-02
2	0.42%	131	6.16E-04	10	4.39%	1372	6.46E-03	18	8.18%	2557	1.20E-02
3	0.41%	127	5.98E-04	11	4.66%	1459	6.87E-03	19	5.70%	1781	8.39E-03
4	0.26%	82	3.85E-04	12	5.89%	1842	8.68E-03	20	4.27%	1337	6.30E-03
5	0.50%	156	7.36E-04	13	6.15%	1924	9.07E-03	21	3.26%	1019	4.80E-03
6	0.90%	283	1.33E-03	14	6.04%	1888	8.90E-03	22	3.30%	1031	4.86E-03
7	3.79%	1186	5.59E-03	15	7.01%	2194	1.03E-02	23	2.46%	770	3.63E-03
8	7.76%	2429	1.14E-02	16	7.14%	2233	1.05E-02	24	1.87%	584	2.75E-03
Total										31,280	

681 E Seely, San Jose, CA - Roadway Modeling
 River Oaks Parkway - Background Traffic
 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
DPM_ROAK	River Oaks Parkway	NW-SW	2	322	0.20	7.3	24.0	3.4	30	11,940

Emission Factors - DPM

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle (g/VMT)	0.00034			

Emission Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and DPM Emissions - DPM_ROAK

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	3.90%	465	8.76E-06	9	6.42%	766	1.44E-05	17	5.62%	671	1.26E-05
2	2.58%	308	5.80E-06	10	7.34%	876	1.65E-05	18	3.27%	390	7.34E-06
3	2.87%	342	6.44E-06	11	6.42%	766	1.44E-05	19	2.35%	281	5.28E-06
4	3.32%	397	7.47E-06	12	6.88%	821	1.55E-05	20	0.86%	103	1.93E-06
5	2.18%	260	4.89E-06	13	6.25%	746	1.40E-05	21	3.09%	369	6.96E-06
6	3.38%	404	7.60E-06	14	6.19%	739	1.39E-05	22	4.13%	493	9.27E-06
7	6.02%	718	1.35E-05	15	5.10%	609	1.15E-05	23	2.52%	301	5.67E-06
8	4.64%	554	1.04E-05	16	3.78%	452	8.50E-06	24	0.92%	109	2.06E-06
Total										11,940	

681 E Seely, San Jose, CA - Roadway Modeling
 River Oaks Parkway - Background Traffic
 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
PM25_ROAK	River Oaks Parkway	NW-SW	2	322	0.20	7.3	24	1.3	30	11,940

Emission Factors - PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle (g/VMT)	0.001693			

Emission Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and PM2.5 Emissions - PM25_ROAK

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	137	1.29E-05	9	7.11%	849	7.98E-05	17	7.39%	882	8.29E-05
2	0.42%	50	4.69E-06	10	4.39%	524	4.92E-05	18	8.18%	976	9.18E-05
3	0.41%	48	4.56E-06	11	4.66%	557	5.24E-05	19	5.70%	680	6.39E-05
4	0.26%	31	2.94E-06	12	5.89%	703	6.61E-05	20	4.27%	510	4.80E-05
5	0.50%	60	5.61E-06	13	6.15%	735	6.91E-05	21	3.26%	389	3.66E-05
6	0.90%	108	1.01E-05	14	6.04%	721	6.78E-05	22	3.30%	394	3.70E-05
7	3.79%	453	4.25E-05	15	7.01%	838	7.87E-05	23	2.46%	294	2.76E-05
8	7.76%	927	8.72E-05	16	7.14%	852	8.01E-05	24	1.87%	223	2.09E-05
Total										11,940	

681 E Seely, San Jose, CA - Roadway Modeling
 River Oaks Parkway - Background Traffic
 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
TEXH_ROAK	River Oaks Parkway	NW-SW	2	322	0.20	7.3	24	1.3	30	11,940

Emission Factors - TOG Exhaust

Speed Category	1	2	3	4
Travel Speed (mph)	30			
All Vehicles TOG Emissions per Vehicle (g/VMT)	0.03435			
Diesel Vehicles TOG Emissions per Vehicle (g/VMT)	0.00131			
Gasoline Vehicles Emissions per Vehicle (g/VMT)	0.03304			

Emission Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Exhaust Emissions - TEXH_ROAK

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	137	2.52E-04	9	7.11%	849	1.56E-03	17	7.39%	882	1.62E-03
2	0.42%	50	9.15E-05	10	4.39%	524	9.61E-04	18	8.18%	976	1.79E-03
3	0.41%	48	8.89E-05	11	4.66%	557	1.02E-03	19	5.70%	680	1.25E-03
4	0.26%	31	5.73E-05	12	5.89%	703	1.29E-03	20	4.27%	510	9.36E-04
5	0.50%	60	1.09E-04	13	6.15%	735	1.35E-03	21	3.26%	389	7.14E-04
6	0.90%	108	1.98E-04	14	6.04%	721	1.32E-03	22	3.30%	394	7.22E-04
7	3.79%	453	8.30E-04	15	7.01%	838	1.54E-03	23	2.46%	294	5.39E-04
8	7.76%	927	1.70E-03	16	7.14%	852	1.56E-03	24	1.87%	223	4.09E-04
Total										11,940	

681 E Seely, San Jose, CA - Roadway Modeling
 River Oaks Parkway - Background Traffic
 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
TEVAP_ROAK	River Oaks Parkway	NW-SW	2	322	0.20	7.3	24	1.3	30	11,940

Emission Factors - PM2.5 - Evaporative TOG

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Emissions per Vehicle per Hour (g/hour)	1.30355			
Emissions per Vehicle per Mile (g/VMT)	0.04345			

Emission Factors from CT-EMFAC2017

2024 Hourly Traffic Volumes and TOG Evaporative Emissions - TEVAP_ROAK

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	137	3.32E-04	9	7.11%	849	2.05E-03	17	7.39%	882	2.13E-03
2	0.42%	50	1.20E-04	10	4.39%	524	1.26E-03	18	8.18%	976	2.36E-03
3	0.41%	48	1.17E-04	11	4.66%	557	1.34E-03	19	5.70%	680	1.64E-03
4	0.26%	31	7.53E-05	12	5.89%	703	1.70E-03	20	4.27%	510	1.23E-03
5	0.50%	60	1.44E-04	13	6.15%	735	1.77E-03	21	3.26%	389	9.38E-04
6	0.90%	108	2.60E-04	14	6.04%	721	1.74E-03	22	3.30%	394	9.50E-04
7	3.79%	453	1.09E-03	15	7.01%	838	2.02E-03	23	2.46%	294	7.09E-04
8	7.76%	927	2.24E-03	16	7.14%	852	2.06E-03	24	1.87%	223	5.38E-04
Total										11,940	

681 E Seely, San Jose, CA - Roadway Modeling

River Oaks Parkway - Background Traffic

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
FUG_ROAK	River Oaks Parkway	NW-SW	2	322	0.20	7.3	24	1.3	30	11,940

Emission Factors - Fugitive PM2.5

Speed Category	1	2	3	4
Travel Speed (mph)	30			
Tire Wear - Emissions per Vehicle (g/VMT)	0.00211			
Brake Wear - Emissions per Vehicle (g/VMT)	0.01681			
Road Dust - Emissions per Vehicle (g/VMT)	0.12615			
Total Fugitive PM2.5 - Emissions per Vehicle (g/VMT)	0.14506			

Emission Factors from CT-EMFAC2017

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

Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s	Hour	% Per Hour	VPH	g/s
1	1.15%	137	1.11E-03	9	7.11%	849	6.84E-03	17	7.39%	882	7.10E-03
2	0.42%	50	4.02E-04	10	4.39%	524	4.22E-03	18	8.18%	976	7.86E-03
3	0.41%	48	3.90E-04	11	4.66%	557	4.49E-03	19	5.70%	680	5.48E-03
4	0.26%	31	2.52E-04	12	5.89%	703	5.66E-03	20	4.27%	510	4.11E-03
5	0.50%	60	4.81E-04	13	6.15%	735	5.92E-03	21	3.26%	389	3.13E-03
6	0.90%	108	8.69E-04	14	6.04%	721	5.81E-03	22	3.30%	394	3.17E-03
7	3.79%	453	3.65E-03	15	7.01%	838	6.75E-03	23	2.46%	294	2.37E-03
8	7.76%	927	7.47E-03	16	7.14%	852	6.87E-03	24	1.87%	223	1.79E-03
Total										11,940	

681 Trimble - River Oaks Parkway Background Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
Off-Site Maximum Residential Cancer Risk Receptor (1.5 meter receptor height)

Emissions Year 2024
Receptor Information
 Number of Receptors 1
 Receptor Height = 1.5 meters above ground level
 Receptor distances = receptor at residential cancer risk MEI location

Meteorological Conditions
 BAAQMDSan Jose Airport Met Data 2013-2017
 Land Use Classification urban
 Wind speed = variable
 Wind direction = variable

MEI Maximum Concentrations

Emission Years	Concentration ($\mu\text{g}/\text{m}^3$)		
	DPM	Exhaust TOG	Evaporative TOG
2024-2053	0.00012	0.0127	0.0167

681 Trimble - Montague Expressway Background Traffic - TACs & PM2.5
AERMOD Risk Modeling Parameters and Maximum Concentrations
Off-Site Maximum Residential Cancer Risk Receptor (1.5 meter receptor height)

Emissions Year 2024
Receptor Information
 Number of Receptors 1
 Receptor Height = 1.5 meters above ground level
 Receptor distances = receptor at residential cancer risk MEI location

Meteorological Conditions
 BAAQMDSan Jose Airport Met Data 2013-2017
 Land Use Classification urban
 Wind speed = variable
 Wind direction = variable

MEI Maximum Concentrations

Emission Years	Concentration ($\mu\text{g}/\text{m}^3$)		
	DPM	Exhaust TOG	Evaporative TOG
2024-2053	0.00048	0.0221	0.0296

**681 Trimble - River Oaks Parkway Background Traffic Maximum Cancer Risks
Off-Site Maximum Residential Cancer Risk Receptor (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-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)
 10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

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

Age --> Parameter	Infant/Child			Adult
	3rd Trimester	0 - <2	2 - <16	16 - 30
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information			Cancer Risk (per million)				
				Age Sensitivity Factor	Annual TAC Conc (ug/m3)			DPM	Exhaust TOG	Evaporative TOG	Total
					DPM	TOG	Evaporative				
0	2024	0.25	-0.25 - 0*	10	0.0001	0.0127	0.0167	0.002	0.001	0.000	0.00
1	2024	1	1	10	0.0001	0.0127	0.0167	0.02	0.012	0.001	0.03
2	2025	1	2	10	0.0001	0.0127	0.0167	0.02	0.012	0.001	0.03
3	2026	1	3	3	0.0001	0.0127	0.0167	0.00	0.002	0.000	0.01
4	2027	1	4	3	0.0001	0.0127	0.0167	0.00	0.002	0.000	0.01
5	2028	1	5	3	0.0001	0.0127	0.0167	0.00	0.002	0.000	0.01
6	2029	1	6	3	0.0001	0.0127	0.0167	0.00	0.002	0.000	0.01
7	2030	1	7	3	0.0001	0.0127	0.0167	0.00	0.002	0.000	0.01
8	2031	1	8	3	0.0001	0.0127	0.0167	0.00	0.002	0.000	0.01
9	2032	1	9	3	0.0001	0.0127	0.0167	0.00	0.002	0.000	0.01
10	2033	1	10	3	0.0001	0.0127	0.0167	0.00	0.002	0.000	0.01
11	2034	1	11	3	0.0001	0.0127	0.0167	0.00	0.002	0.000	0.01
12	2035	1	12	3	0.0001	0.0127	0.0167	0.00	0.002	0.000	0.01
13	2036	1	13	3	0.0001	0.0127	0.0167	0.00	0.002	0.000	0.01
14	2037	1	14	3	0.0001	0.0127	0.0167	0.00	0.002	0.000	0.01
15	2038	1	15	3	0.0001	0.0127	0.0167	0.00	0.002	0.000	0.01
16	2039	1	16	3	0.0001	0.0127	0.0167	0.00	0.002	0.000	0.01
17	2040	1	17	1	0.0001	0.0127	0.0167	0.00	0.000	0.000	0.001
18	2041	1	18	1	0.0001	0.0127	0.0167	0.00	0.000	0.000	0.001
19	2042	1	19	1	0.0001	0.0127	0.0167	0.00	0.000	0.000	0.001
20	2043	1	20	1	0.0001	0.0127	0.0167	0.00	0.000	0.000	0.001
21	2044	1	21	1	0.0001	0.0127	0.0167	0.00	0.000	0.000	0.001
22	2045	1	22	1	0.0001	0.0127	0.0167	0.00	0.000	0.000	0.001
23	2046	1	23	1	0.0001	0.0127	0.0167	0.00	0.000	0.000	0.001
24	2047	1	24	1	0.0001	0.0127	0.0167	0.00	0.000	0.000	0.001
25	2048	1	25	1	0.0001	0.0127	0.0167	0.00	0.000	0.000	0.001
26	2049	1	26	1	0.0001	0.0127	0.0167	0.00	0.000	0.000	0.001
27	2050	1	27	1	0.0001	0.0127	0.0167	0.00	0.000	0.000	0.001
28	2051	1	28	1	0.0001	0.0127	0.0167	0.00	0.000	0.000	0.001
29	2052	1	29	1	0.0001	0.0127	0.0167	0.00	0.000	0.000	0.001
30	2053	1	30	1	0.0001	0.0127	0.0167	0.00	0.000	0.000	0.001
Total Increased Cancer Risk				Total				0.09	0.054	0.004	0.15

* Third trimester of pregnancy

**681 Trimble - Montague Expressway Background Traffic Maximum Cancer Risks
Off-Site Maximum Residential Cancer Risk Receptor (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-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 (µg/m³)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

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

Age --> Parameter	Infant/Child			Adult
	3rd Trimester	0 - <2	2 - <16	16 - 30
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information			Cancer Risk (per million)				
				Age Sensitivity Factor	Annual TAC Conc (ug/m3)			DPM	TOG Exhaust	TOG Evaporative	Total
					DPM	TOG	Evaporative				
0	2024	0.25	-0.25 - 0*	10	0.0005	0.0221	0.0296	0.007	0.002	0.000	0.01
1	2024	1	1	10	0.0005	0.0221	0.0296	0.08	0.021	0.002	0.10
2	2025	1	2	10	0.0005	0.0221	0.0296	0.08	0.021	0.002	0.10
3	2026	1	3	3	0.0005	0.0221	0.0296	0.01	0.003	0.000	0.02
4	2027	1	4	3	0.0005	0.0221	0.0296	0.01	0.003	0.000	0.02
5	2028	1	5	3	0.0005	0.0221	0.0296	0.01	0.003	0.000	0.02
6	2029	1	6	3	0.0005	0.0221	0.0296	0.01	0.003	0.000	0.02
7	2030	1	7	3	0.0005	0.0221	0.0296	0.01	0.003	0.000	0.02
8	2031	1	8	3	0.0005	0.0221	0.0296	0.01	0.003	0.000	0.02
9	2032	1	9	3	0.0005	0.0221	0.0296	0.01	0.003	0.000	0.02
10	2033	1	10	3	0.0005	0.0221	0.0296	0.01	0.003	0.000	0.02
11	2034	1	11	3	0.0005	0.0221	0.0296	0.01	0.003	0.000	0.02
12	2035	1	12	3	0.0005	0.0221	0.0296	0.01	0.003	0.000	0.02
13	2036	1	13	3	0.0005	0.0221	0.0296	0.01	0.003	0.000	0.02
14	2037	1	14	3	0.0005	0.0221	0.0296	0.01	0.003	0.000	0.02
15	2038	1	15	3	0.0005	0.0221	0.0296	0.01	0.003	0.000	0.02
16	2039	1	16	3	0.0005	0.0221	0.0296	0.01	0.003	0.000	0.02
17	2040	1	17	1	0.0005	0.0221	0.0296	0.00	0.000	0.000	0.002
18	2041	1	18	1	0.0005	0.0221	0.0296	0.00	0.000	0.000	0.002
19	2042	1	19	1	0.0005	0.0221	0.0296	0.00	0.000	0.000	0.002
20	2043	1	20	1	0.0005	0.0221	0.0296	0.00	0.000	0.000	0.002
21	2044	1	21	1	0.0005	0.0221	0.0296	0.00	0.000	0.000	0.002
22	2045	1	22	1	0.0005	0.0221	0.0296	0.00	0.000	0.000	0.002
23	2046	1	23	1	0.0005	0.0221	0.0296	0.00	0.000	0.000	0.002
24	2047	1	24	1	0.0005	0.0221	0.0296	0.00	0.000	0.000	0.002
25	2048	1	25	1	0.0005	0.0221	0.0296	0.00	0.000	0.000	0.002
26	2049	1	26	1	0.0005	0.0221	0.0296	0.00	0.000	0.000	0.002
27	2050	1	27	1	0.0005	0.0221	0.0296	0.00	0.000	0.000	0.002
28	2051	1	28	1	0.0005	0.0221	0.0296	0.00	0.000	0.000	0.002
29	2052	1	29	1	0.0005	0.0221	0.0296	0.00	0.000	0.000	0.002
30	2053	1	30	1	0.0005	0.0221	0.0296	0.00	0.000	0.000	0.002
Total Increased Cancer Risk			Total					0.36	0.094	0.007	0.46

* Third trimester of pregnancy

**681 Trimble - River Oaks Parkway Background Traffic - TACs & PM2.5
 AERMOD Risk Modeling Parameters and Maximum Concentrations
 Off-Site Maximum Residential PM2.5 Concentration Receptor (1.5 meter receptor height)**

Emissions Year 2024
Receptor Information
 Number of Receptors 1
 Receptor Height = 1.5 meters above ground level
 Receptor distances = receptor at residential PM2.5 concentration MEI location

Meteorological Conditions
 BAAQMDSan Jose Airport Met Data 2013-2017
 Land Use Classification urban
 Wind speed = variable
 Wind direction = variable

MEI Maximum Concentrations

Emission Years	PM2.5 Concentrations ($\mu\text{g}/\text{m}^3$)
	Total PM2.5
2024-2053	0.1633

**681 Trimble - Montague Expressway Background Traffic - TACs & PM2.5
 AERMOD Risk Modeling Parameters and Maximum Concentrations
 Off-Site Maximum Residential PM2.5 Concentration Receptor (1.5 meter receptor height)**

Emissions Year 2024
Receptor Information
 Number of Receptors 1
 Receptor Height = 1.5 meters above ground level
 Receptor distances = receptor at residential PM2.5 concentration MEI location

Meteorological Conditions
 BAAQMDSan Jose Airport Met Data 2013-2017
 Land Use Classification urban
 Wind speed = variable
 Wind direction = variable

MEI Maximum Concentrations

Emission Years	PM2.5 Concentrations ($\mu\text{g}/\text{m}^3$)
	Total PM2.5
2024-2053	0.0343

681 E Trimble/Seeley-Construction DPM/PM2.5 Modeling Information
AERMOD Risk Modeling Parameters and Maximum Concentrations
Construction Impacts - Unmitigated Emissions
On-Site Residential Receptors, Building 1, 1st Floor (1.5 meter receptor heights)

Receptor Information

Number of Receptors 61
 Receptor Height = 1.5 meters
 Receptor spacing = 8-meter spacing in residential areas

Meteorological Conditions

San Jose Airport BAAQMD Hourly Data 2013-2017
 Land Use Classification Urban
 Wind speed = variable
 Wind direction = variable

MEI Maximum Concentrations

Emission Period	DPM Concentration ($\mu\text{g}/\text{m}^3$)
2026 - Construction	0.05986
2027 - Construction	0.06512

681 E Trimble/Seeley-Construction DPM/PM2.5 Modeling Information
AERMOD Risk Modeling Parameters and Maximum Concentrations
Construction Impacts - Mitigated Emissions
On-Site Residential Receptors, Building 1, 1st Floor (1.5 meter receptor heights)

Receptor Information

Number of Receptors 61
 Receptor Height = 1.5 meters
 Receptor spacing = 8-meter spacing in residential areas

Meteorological Conditions

San Jose Airport BAAQMD Hourly Data 2013-2017
 Land Use Classification Urban
 Wind speed = variable
 Wind direction = variable

MEI Maximum Concentrations

Emission Period	DPM Concentration ($\mu\text{g}/\text{m}^3$)
2026 - Construction	0.01211
2027 - Construction	0.01171

681 E Trimble/Seeley-Construction DPM/PM2.5 Modeling Information
AERMOD Risk Modeling Parameters and Maximum Concentrations
Construction Impacts - Unmitigated Emissions
On-Site Residential Receptors, Building 1, 2nd Floor (6.1 meter receptor heights)

Receptor Information

Number of Receptors 61
 Receptor Height = 6.1 meters
 Receptor spacing = 8-meter spacing in residential areas

Meteorological Conditions

San Jose Airport BAAQMD Hourly Data 2013-2017
 Land Use Classification Urban
 Wind speed = variable
 Wind direction = variable

MEI Maximum Concentrations

Emission Period	DPM Concentration ($\mu\text{g}/\text{m}^3$)
2026 - Construction	0.06798
2027 - Construction	0.04983

681 E Trimble/Seeley Residential, San Jose - Construction Impacts
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated
On-Site Residential Receptors, Building 1, 1st Floor (1.5 meter receptor heights)
Residential Exposure (30-year)

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-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00

Age -->	Infant/Child			Adult
	3rd Trimester	0 - <2	2 - 16	16 - 70
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

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information			Maximum	
				Age Sensitivity Factor	Annual DPM Conc. (ug/m3)	DPM Cancer Risk (per million)	Hazard Index	Total PM2.5
3rd Trimester	2026	0.25	-0.25 - 0*	10	0.0599	0.81	-	-
1	2026	1	1	10	0.0599	9.83	0.0120	0.075
2	2027	1	2	10	0.0651	10.70	0.0130	0.072
3	2028	1	3	3	0.0000	0.00		
4	2029	1	4	3	0.0000	0.00		
5	2030	1	5	3	0.0000	0.00		
6	2031	1	6	3	0.0000	0.00		
7	2032	1	7	3	0.0000	0.00		
8	2033	1	8	3	0.0000	0.00		
9	2034	1	9	3	0.0000	0.00		
10	2035	1	10	3	0.0000	0.00		
11	2036	1	11	3	0.0000	0.00		
12	2037	1	12	3	0.0000	0.00		
13	2038	1	13	3	0.0000	0.00		
14	2039	1	14	3	0.0000	0.00		
15	2040	1	15	3	0.0000	0.00		
16	2041	1	16	3	0.0000	0.00		
17	2042	1	17	1	0.0000	0.000		
18	2043	1	18	1	0.0000	0.000		
19	2044	1	19	1	0.0000	0.000		
20	2045	1	20	1	0.0000	0.000		
21	2046	1	21	1	0.0000	0.000		
22	2047	1	22	1	0.0000	0.000		
23	2048	1	23	1	0.0000	0.000		
24	2049	1	24	1	0.0000	0.000		
25	2050	1	25	1	0.0000	0.000		
26	2051	1	26	1	0.0000	0.000		
27	2052	1	27	1	0.0000	0.000		
28	2053	1	28	1	0.0000	0.000		
29	2054	1	29	1	0.0000	0.000		
30	2055	1	30	1	0.0000	0.000		
Total Increased Cancer Risk						21.34		

* Third trimester of pregnancy

681 E Trimble/Seeley Residential, San Jose - Construction Impacts
Maximum DPM Cancer Risk Calculations From Construction - Mitigated
On-Site Residential Receptors, Building 1, 1st Floor (1.5 meter receptor heights)
Residential Exposure (30-year)

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-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00

Age -->	Infant/Child			Adult
	3rd Trimester	0 - <2	2 - 16	16 - 70
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

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information			Maximum	
				Age Sensitivity Factor	Annual DPM Conc. (ug/m3)	DPM Cancer Risk (per million)	Hazard Index	Total PM2.5
3rd Trimester	2026	0.25	-0.25 - 0*	10	0.0121	0.16	-	-
1	2026	1	1	10	0.0121	1.99	0.0024	0.025
2	2027	1	2	10	0.0117	1.92	0.0023	0.018
3	2028	1	3	3	0.0000	0.00		
4	2029	1	4	3	0.0000	0.00		
5	2030	1	5	3	0.0000	0.00		
6	2031	1	6	3	0.0000	0.00		
7	2032	1	7	3	0.0000	0.00		
8	2033	1	8	3	0.0000	0.00		
9	2034	1	9	3	0.0000	0.00		
10	2035	1	10	3	0.0000	0.00		
11	2036	1	11	3	0.0000	0.00		
12	2037	1	12	3	0.0000	0.00		
13	2038	1	13	3	0.0000	0.00		
14	2039	1	14	3	0.0000	0.00		
15	2040	1	15	3	0.0000	0.00		
16	2041	1	16	3	0.0000	0.00		
17	2042	1	17	1	0.0000	0.000		
18	2043	1	18	1	0.0000	0.000		
19	2044	1	19	1	0.0000	0.000		
20	2045	1	20	1	0.0000	0.000		
21	2046	1	21	1	0.0000	0.000		
22	2047	1	22	1	0.0000	0.000		
23	2048	1	23	1	0.0000	0.000		
24	2049	1	24	1	0.0000	0.000		
25	2050	1	25	1	0.0000	0.000		
26	2051	1	26	1	0.0000	0.000		
27	2052	1	27	1	0.0000	0.000		
28	2053	1	28	1	0.0000	0.000		
29	2054	1	29	1	0.0000	0.000		
30	2055	1	30	1	0.0000	0.000		
Total Increased Cancer Risk						4.08		

* Third trimester of pregnancy

681 E Trimble/Seeley Residential, San Jose - Construction Impacts
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated
On-Site Residential Receptors, Building 1, 2nd Floor (6.1 meter receptor heights)
Residential Exposure (30-year)

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-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)

10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00

Age -->	Infant/Child			Adult
	3rd Trimester	0 - <2	2 - 16	16 - 70
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

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information			Maximum	
				Age Sensitivity Factor	Annual DPM Conc. (ug/m3)	DPM Cancer Risk (per million)	Hazard Index	Total PM2.5
3rd Trimester	2026	0.25	-0.25 - 0*	10	0.0680	0.92	-	-
1	2026	1	1	10	0.0680	11.17	0.0136	0.075
2	2027	1	2	10	0.0498	8.18	0.0100	0.058
3	2028	1	3	3	0.0000	0.00		
4	2029	1	4	3	0.0000	0.00		
5	2030	1	5	3	0.0000	0.00		
6	2031	1	6	3	0.0000	0.00		
7	2032	1	7	3	0.0000	0.00		
8	2033	1	8	3	0.0000	0.00		
9	2034	1	9	3	0.0000	0.00		
10	2035	1	10	3	0.0000	0.00		
11	2036	1	11	3	0.0000	0.00		
12	2037	1	12	3	0.0000	0.00		
13	2038	1	13	3	0.0000	0.00		
14	2039	1	14	3	0.0000	0.00		
15	2040	1	15	3	0.0000	0.00		
16	2041	1	16	3	0.0000	0.00		
17	2042	1	17	1	0.0000	0.000		
18	2043	1	18	1	0.0000	0.000		
19	2044	1	19	1	0.0000	0.000		
20	2045	1	20	1	0.0000	0.000		
21	2046	1	21	1	0.0000	0.000		
22	2047	1	22	1	0.0000	0.000		
23	2048	1	23	1	0.0000	0.000		
24	2049	1	24	1	0.0000	0.000		
25	2050	1	25	1	0.0000	0.000		
26	2051	1	26	1	0.0000	0.000		
27	2052	1	27	1	0.0000	0.000		
28	2053	1	28	1	0.0000	0.000		
29	2054	1	29	1	0.0000	0.000		
30	2055	1	30	1	0.0000	0.000		
Total Increased Cancer Risk						20.27		

* Third trimester of pregnancy

**681 Trimble - River Oaks Parkway Background Traffic - TACs & PM2.5
 AERMOD Risk Modeling Parameters and Maximum Concentrations
 On-Site Maximum Residential Cancer Risk Receptor (1.5 meter receptor height)**

Emissions Year 2024
Receptor Information
 Number of Receptors 1
 Receptor Height = 1.5 meters above ground level
 Receptor distances = receptor at residential cancer risk MEI location

Meteorological Conditions
 BAAQMDSan Jose Airport Met Data 2013-2017
 Land Use Classification urban
 Wind speed = variable
 Wind direction = variable

MEI Maximum Concentrations

Emission Years	Concentration ($\mu\text{g}/\text{m}^3$)		
	DPM	Exhaust TOG	Evaporative TOG
2028-2053	0.00007	0.0085	0.0111

**681 Trimble - Montague Expressway Background Traffic - TACs & PM2.5
 AERMOD Risk Modeling Parameters and Maximum Concentrations
 On-Site Maximum Residential Cancer Risk Receptor (1.5 meter receptor height)**

Emissions Year 2024
Receptor Information
 Number of Receptors 1
 Receptor Height = 1.5 meters above ground level
 Receptor distances = receptor at residential cancer risk MEI location

Meteorological Conditions
 BAAQMDSan Jose Airport Met Data 2013-2017
 Land Use Classification urban
 Wind speed = variable
 Wind direction = variable

MEI Maximum Concentrations

Emission Years	Concentration ($\mu\text{g}/\text{m}^3$)		
	DPM	Exhaust TOG	Evaporative TOG
2028-2053	0.00143	0.0703	0.0941

**681 Trimble - River Oaks Parkway Background Traffic Maximum Cancer Risks
On-Site Maximum Residential Cancer Risk Receptor (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-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 (µg/m³)
DBR = daily breathing rate (L/kg body weight-day)
A = Inhalation absorption factor
EF = Exposure frequency (days/year)
10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

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

Age --> Parameter	Infant/Child			Adult
	3rd Trimester	0 - <2	2 - <16	16 - 30
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information			Cancer Risk (per million)				
				Age Sensitivity Factor	Annual TAC Conc (ug/m3)			DPM	TOG	Evaporative	Total
					DPM	TOG	Evaporative				
0	2024	0.25	-0.25 - 0*	10	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1	2024	1	1	10	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	2025	1	2	10	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	2026	1	3	3	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	2027	1	4	3	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	2028	1	5	3	0.00007	0.0085	0.0111	0.0018	0.0013	0.0001	0.0032
6	2029	1	6	3	0.00007	0.0085	0.0111	0.0018	0.0013	0.0001	0.0032
7	2030	1	7	3	0.00007	0.0085	0.0111	0.0018	0.0013	0.0001	0.0032
8	2031	1	8	3	0.00007	0.0085	0.0111	0.0018	0.0013	0.0001	0.0032
9	2032	1	9	3	0.00007	0.0085	0.0111	0.0018	0.0013	0.0001	0.0032
10	2033	1	10	3	0.00007	0.0085	0.0111	0.0018	0.0013	0.0001	0.0032
11	2034	1	11	3	0.00007	0.0085	0.0111	0.0018	0.0013	0.0001	0.0032
12	2035	1	12	3	0.00007	0.0085	0.0111	0.0018	0.0013	0.0001	0.0032
13	2036	1	13	3	0.00007	0.0085	0.0111	0.0018	0.0013	0.0001	0.0032
14	2037	1	14	3	0.00007	0.0085	0.0111	0.0018	0.0013	0.0001	0.0032
15	2038	1	15	3	0.00007	0.0085	0.0111	0.0018	0.0013	0.0001	0.0032
16	2039	1	16	3	0.00007	0.0085	0.0111	0.0018	0.0013	0.0001	0.0032
17	2040	1	17	1	0.00007	0.0085	0.0111	0.0002	0.0001	0.0000	0.0004
18	2041	1	18	1	0.00007	0.0085	0.0111	0.0002	0.0001	0.0000	0.0004
19	2042	1	19	1	0.00007	0.0085	0.0111	0.0002	0.0001	0.0000	0.0004
20	2043	1	20	1	0.00007	0.0085	0.0111	0.0002	0.0001	0.0000	0.0004
21	2044	1	21	1	0.00007	0.0085	0.0111	0.0002	0.0001	0.0000	0.0004
22	2045	1	22	1	0.00007	0.0085	0.0111	0.0002	0.0001	0.0000	0.0004
23	2046	1	23	1	0.00007	0.0085	0.0111	0.0002	0.0001	0.0000	0.0004
24	2047	1	24	1	0.00007	0.0085	0.0111	0.0002	0.0001	0.0000	0.0004
25	2048	1	25	1	0.00007	0.0085	0.0111	0.0002	0.0001	0.0000	0.0004
26	2049	1	26	1	0.00007	0.0085	0.0111	0.0002	0.0001	0.0000	0.0004
27	2050	1	27	1	0.00007	0.0085	0.0111	0.0002	0.0001	0.0000	0.0004
28	2051	1	28	1	0.00007	0.0085	0.0111	0.0002	0.0001	0.0000	0.0004
29	2052	1	29	1	0.00007	0.0085	0.0111	0.0002	0.0001	0.0000	0.0004
30	2053	1	30	1	0.00007	0.0085	0.0111	0.0002	0.0001	0.0000	0.0004
Total Increased Cancer Risk			Total					0.02	0.017	0.001	0.04

* Third trimester of pregnancy

**681 Trimble - Montague Expressway Background Traffic Maximum Cancer Risks
On-Site Maximum Residential Cancer Risk Receptor (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-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)
 10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

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

Age --> Parameter	Infant/Child			Adult
	3rd Trimester	0 - <2	2 - <16	16 - 30
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
AT =	70	70	70	70
FAH =	1.00	1.00	1.00	0.73

* 95th percentile breathing rates

Road Traffic Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Year	Exposure Duration (years)	Age	Maximum - Exposure Information			Cancer Risk (per million)					
				Age Sensitivity Factor	Annual TAC Conc (ug/m3)			DPM	TOG	TOG	Evaporative	Total
					DPM	TOG	Evaporative					
0	2024	0.25	-0.25 - 0*	10	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
1	2024	1	1	10	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2	2025	1	2	10	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3	2026	1	3	3	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
4	2027	1	4	3	0.00000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
5	2028	1	5	3	0.00143	0.0703	0.0941	0.0370	0.0104	0.0008	0.0482	
6	2029	1	6	3	0.00143	0.0703	0.0941	0.0370	0.0104	0.0008	0.0482	
7	2030	1	7	3	0.00143	0.0703	0.0941	0.0370	0.0104	0.0008	0.0482	
8	2031	1	8	3	0.00143	0.0703	0.0941	0.0370	0.0104	0.0008	0.0482	
9	2032	1	9	3	0.00143	0.0703	0.0941	0.0370	0.0104	0.0008	0.0482	
10	2033	1	10	3	0.00143	0.0703	0.0941	0.0370	0.0104	0.0008	0.0482	
11	2034	1	11	3	0.00143	0.0703	0.0941	0.0370	0.0104	0.0008	0.0482	
12	2035	1	12	3	0.00143	0.0703	0.0941	0.0370	0.0104	0.0008	0.0482	
13	2036	1	13	3	0.00143	0.0703	0.0941	0.0370	0.0104	0.0008	0.0482	
14	2037	1	14	3	0.00143	0.0703	0.0941	0.0370	0.0104	0.0008	0.0482	
15	2038	1	15	3	0.00143	0.0703	0.0941	0.0370	0.0104	0.0008	0.0482	
16	2039	1	16	3	0.00143	0.0703	0.0941	0.0370	0.0104	0.0008	0.0482	
17	2040	1	17	1	0.00143	0.0703	0.0941	0.0041	0.0012	0.0001	0.0053	
18	2041	1	18	1	0.00143	0.0703	0.0941	0.0041	0.0012	0.0001	0.0053	
19	2042	1	19	1	0.00143	0.0703	0.0941	0.0041	0.0012	0.0001	0.0053	
20	2043	1	20	1	0.00143	0.0703	0.0941	0.0041	0.0012	0.0001	0.0053	
21	2044	1	21	1	0.00143	0.0703	0.0941	0.0041	0.0012	0.0001	0.0053	
22	2045	1	22	1	0.00143	0.0703	0.0941	0.0041	0.0012	0.0001	0.0053	
23	2046	1	23	1	0.00143	0.0703	0.0941	0.0041	0.0012	0.0001	0.0053	
24	2047	1	24	1	0.00143	0.0703	0.0941	0.0041	0.0012	0.0001	0.0053	
25	2048	1	25	1	0.00143	0.0703	0.0941	0.0041	0.0012	0.0001	0.0053	
26	2049	1	26	1	0.00143	0.0703	0.0941	0.0041	0.0012	0.0001	0.0053	
27	2050	1	27	1	0.00143	0.0703	0.0941	0.0041	0.0012	0.0001	0.0053	
28	2051	1	28	1	0.00143	0.0703	0.0941	0.0041	0.0012	0.0001	0.0053	
29	2052	1	29	1	0.00143	0.0703	0.0941	0.0041	0.0012	0.0001	0.0053	
30	2053	1	30	1	0.00143	0.0703	0.0941	0.0041	0.0012	0.0001	0.0053	
Total Increased Cancer Risk			Total					0.50	0.141	0.011	0.65	

* Third trimester of pregnancy

**681 Trimble - River Oaks Parkway Background Traffic - TACs & PM2.5
 AERMOD Risk Modeling Parameters and Maximum Concentrations
 On-Site Maximum Residential PM2.5 Concentration Receptor (1.5 meter receptor height)**

Emissions Year 2024
Receptor Information
 Number of Receptors 1
 Receptor Height = 1.5 meters above ground level
 Receptor distances = receptor at residential PM2.5 concentration MEI location

Meteorological Conditions
 BAAQMDSan Jose Airport Met Data 2013-2017
 Land Use Classification urban
 Wind speed = variable
 Wind direction = variable

MEI Maximum Concentrations

Emission Years	PM2.5 Concentrations ($\mu\text{g}/\text{m}^3$)
	Total PM2.5
2028-2053	0.0438

**681 Trimble - Montague Expressway Background Traffic - TACs & PM2.5
 AERMOD Risk Modeling Parameters and Maximum Concentrations
 On-Site Maximum Residential PM2.5 Concentration Receptor (1.5 meter receptor height)**

Emissions Year 2024
Receptor Information
 Number of Receptors 1
 Receptor Height = 1.5 meters above ground level
 Receptor distances = receptor at residential PM2.5 concentration MEI location

Meteorological Conditions
 BAAQMDSan Jose Airport Met Data 2013-2017
 Land Use Classification urban
 Wind speed = variable
 Wind direction = variable

MEI Maximum Concentrations

Emission Years	PM2.5 Concentrations ($\mu\text{g}/\text{m}^3$)
	Total PM2.5
2028-2053	0.0822

Health Risks at On-Site Receptors From Generator Operation

**681 E. Trimble, San Jose, CA - AERMOD Modeling Parameters
 Project 670 Horsepower Diesel Emergency Generator
 On-Site Residential Receptors - Project MEI Receptor (1.5 meter Receptor Height)**

DPM Emission Rates				
Source Type	Annual Operation (hr)	DPM Emissions		
		Daily (lb/day)	Annual (lb/yr)	Annual (tons/yr)
Generator	50	0.0221	8.08	4.04E-03

Modeling Information	
Model:	AERMOD
Source	Diesel Engine - 670 hp emergency generator
Source Type	Point
Receptor Spacing	at on-site residences
Receptor Height	various
Meteorological Data	2013-2017 BAAQMD San Jose Airport data
Point Source Stack Parameters	
Stack Height** (ft)	12
Stack Diameter** (ft)	0.60
Stack Exit Velocity** (ft/sec)	149
Exhaust Temperature** (F)	872
Annual Emission Rate (lb/year)	8.08
Hourly Emission Rate (lb/hr)	9.22E-04
Hourly Emission Rate (g/sec)	1.16E-04

** BAAQMD default generator parameters

681 E. Trimble, San Jose, CA - DPM Cancer Risks
Project 670 Horsepower Diesel Emergency Generator
On-Site Residential Receptors - Project MEI Receptor (1.5 meter Receptor Height)
30-Year 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-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)
 10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00

Age --> Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 +
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
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

On-Site Project MEI Cancer Risk Receptor

Exposure Duration (years)	Age	Age Sensitivity Factor	DPM Annual Conc (ug/m3)	DPM Cancer Risk (per million)
0.25	-0.25 - 0*	10	0.00070	0.01
2	0 - 2	10	0.00070	0.23
12	2 - 16	3	0.00070	0.22
14	16+_	1	0.00070	0.03
Total Increased Cancer Risk				0.48

* Third trimester of pregnancy

681 E. Trimble, San Jose, CA - DPM Cancer Risks
Project 670 Horsepower Diesel Emergency Generator
On-Site Residential Receptors - 1st Residential Floor Level Receptor Heights
30-Year 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-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)
 10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00

Age --> Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 +
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
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

On-Site Maximum Generator Cancer Risk Receptor

Exposure Duration (years)	Age	Age Sensitivity Factor	DPM Annual Conc (ug/m3)	DPM Cancer Risk (per million)
0.25	-0.25 - 0*	10	0.00758	0.10
2	0 - 2	10	0.00758	2.49
12	2 - 16	3	0.00758	2.35
14	16+ ₋	1	0.00758	0.30
Total Increased Cancer Risk				5.25

* Third trimester of pregnancy

681 E. Trimble, San Jose, CA - DPM Cancer Risks
Project 670 Horsepower Diesel Emergency Generator
On-Site Residential Receptors - 2nd Residential Floor Level Receptor Heights
30-Year 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-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)
 10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00

Age --> Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 +
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
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

On-Site Maximum Generator Cancer Risk Receptor

Exposure Duration (years)	Age	Age Sensitivity Factor	DPM Annual Conc (ug/m3)	DPM Cancer Risk (per million)
0.25	-0.25 - 0*	10	0.01821	0.25
2	0 - 2	10	0.01821	5.98
12	2 - 16	3	0.01821	5.65
14	16+ ₋	1	0.01821	0.73
Total Increased Cancer Risk				12.61

* Third trimester of pregnancy

681 E. Trimble, San Jose, CA - DPM Cancer Risks
Project 670 Horsepower Diesel Emergency Generator
On-Site Residential Receptors - 3rd Residential Floor Level Receptor Heights
30-Year Exposure at On-Site Generator Cancer Risk MEI

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-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 (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)
 10⁻⁶ = Conversion factor

Values

Cancer Potency Factors (mg/kg-day)⁻¹

TAC	CPF
DPM	1.10E+00

Age --> Parameter	Infant/Child			Adult
	3rd Trimester	0 - 2	2 - 16	16 +
ASF	10	10	3	1
DBR* =	361	1090	572	261
A =	1	1	1	1
EF =	350	350	350	350
ED =	0.25	2	14	14
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

On-Site Maximum Generator Cancer Risk Receptor

Exposure Duration (years)	Age	Age Sensitivity Factor	DPM Annual Conc (ug/m3)	DPM Cancer Risk (per million)
0.25	-0.25 - 0*	10	0.02192	0.30
2	0 - 2	10	0.02192	7.20
12	2 - 16	3	0.02192	6.80
14	16+ ₋	1	0.02192	0.88
Total Increased Cancer Risk				15.18

* Third trimester of pregnancy

GENERATOR EMISSION CALCULATIONSOperating Hours Per Year (hr/yr) **50**

From Manufacturer's Data

Load Factor (from CalEEMod) **0.73**Brake Horsepower of Engine (HP) **670** (500 Kw Generator)

From CARB/EPA Certified Data Pollutant	Emission Factor (g/hp-hr)	Annual Emissions (lb/yr)	Annual Emissions (TPY)	Max. Daily (lb/day)	Avg Daily (lb/day)
ROG	1.02	54.92	0.03	36.11	0.15
NOx	2.85	153.52	0.08	100.94	0.42
PM10	0.15	8.08	0.004	5.31	0.02
PM2.5	0.15	8.08	0.004	5.31	0.02
PM10 (mitigated with DPF or Tier 4)	0.02	1.21	0.001	0.80	0.00
PM2.5 (mitigated with DPF or Tier 4)	0.02	1.21	0.001	0.80	0.00

Table G-40. Emergency Generator and Fire Pump Emission Factors

Equipment	Fuel	Low HP	High HP	Unit of Emission Factor	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Emergency Generator	Diesel	0	11	g/bhp-hr.	1.120	1.020	5.970	5.317	0.005	0.597	0.597	521.640	0.021	0.004
Emergency Generator	Diesel	11	25	g/bhp-hr.	1.120	1.020	4.925	5.317	0.005	0.597	0.597	521.640	0.021	0.004
Emergency Generator	Diesel	25	50	g/bhp-hr.	1.120	1.020	4.104	5.317	0.005	0.448	0.448	521.640	0.021	0.004
Emergency Generator	Diesel	50	75	g/bhp-hr.	1.120	1.020	3.700	3.325	0.005	0.150	0.150	521.640	0.021	0.004
Emergency Generator	Diesel	75	100	g/bhp-hr.	1.120	1.020	3.700	3.325	0.005	0.150	0.150	521.640	0.021	0.004
Emergency Generator	Diesel	100	175	g/bhp-hr.	1.120	1.020	3.700	2.850	0.005	0.150	0.150	521.640	0.021	0.004
Emergency Generator	Diesel	175	300	g/bhp-hr.	1.120	1.020	2.600	2.850	0.005	0.150	0.150	521.640	0.021	0.004
Emergency Generator	Diesel	300	600	g/bhp-hr.	1.120	1.020	2.600	2.850	0.005	0.150	0.150	521.640	0.021	0.004
Emergency Generator	Diesel	600	750	g/bhp-hr.	1.120	1.020	2.600	2.850	0.005	0.150	0.150	521.640	0.021	0.004
Emergency Generator	Diesel	750	9999	g/bhp-hr.	1.120	1.020	2.600	4.560	0.005	0.150	0.150	521.640	0.021	0.004
Emergency Generator	CNG	0	500	g/bhp-hr.	1.137	5.467	14.239	0.526	0.002	0.030	0.030	349.272	0.730	0.000
Emergency Generator	CNG	500	9999	g/bhp-hr.	1.137	5.467	14.239	0.421	0.002	0.030	0.030	349.272	0.730	0.000
Fire Pump	Diesel	0	11	g/bhp-hr.	1.120	1.020	5.970	5.317	0.005	0.597	0.597	521.640	0.021	0.004
Fire Pump	Diesel	11	25	g/bhp-hr.	1.120	1.020	4.925	5.317	0.005	0.597	0.597	521.640	0.021	0.004
Fire Pump	Diesel	25	50	g/bhp-hr.	1.120	1.020	4.104	5.317	0.005	0.448	0.448	521.640	0.021	0.004
Fire Pump	Diesel	50	75	g/bhp-hr.	1.120	1.020	3.700	3.325	0.005	0.150	0.150	521.640	0.021	0.004
Fire Pump	Diesel	75	100	g/bhp-hr.	1.120	1.020	3.700	3.325	0.005	0.150	0.150	521.640	0.021	0.004
Fire Pump	Diesel	100	175	g/bhp-hr.	1.120	1.020	3.700	2.850	0.005	0.150	0.150	521.640	0.021	0.004
Fire Pump	Diesel	175	300	g/bhp-hr.	1.120	1.020	2.600	2.850	0.005	0.150	0.150	521.640	0.021	0.004
Fire Pump	Diesel	300	600	g/bhp-hr.	1.120	1.020	2.600	2.850	0.005	0.150	0.150	521.640	0.021	0.004
Fire Pump	Diesel	600	750	g/bhp-hr.	1.120	1.020	2.600	2.850	0.005	0.150	0.150	521.640	0.021	0.004
Fire Pump	Diesel	750	9999	g/bhp-hr.	1.120	1.020	2.600	4.560	0.005	0.150	0.150	521.640	0.021	0.004

Sources: See below.

Pollutant	Emission Factor Source and Assumptions for Diesel Emergency Generators
TOG	AP42 Table 3.3-1
ROG	AP42 Table 3.3-1 and assumes ROG accounts for 91% of TOG
CO	CCR 2423 for engines < 50 hp, CARB ATCM Final Regulation for engines >= 50 hp
NOx	CCR 2423 for engines < 50 hp, CARB ATCM Final Regulation for engines >= 50 hp assumes NOx accounts for 95% of (NMHC+NOx)
	Based on diesel fuel sulfur content 15 ppmw, diesel heat value 19300 BTU/lb, Brake specific fuel consumption (BSFC) of 7000
SO2	BTU/hp-hr.
PM10	CCR 2423 for engines < 50 hp, CARB ATCM Final Regulation for engines >= 50 hp
PM2.5	CCR 2423 for engines < 50 hp, CARB ATCM Final Regulation for engines >= 50 hp, assumes all PM10 is PM2.5
CO2	AP42 Table 3.3-1
CH4	AP42 Table 3.4-1; U.S. Environmental Protection Agency (USEPA). 2020. Emission Factors for Greenhouse Gas Inventories. Available: https://www.epa.gov/sites/default/files/2020-04/documents/ghg-emission-factors-hub.pdf . Accessed: August 18, 2021
N2O	AP42 Table 3.4-1
Pollutant	Emission Factor Source and Assumptions for Diesel Fire Pumps
TOG	AP42 Table 3.3-1
ROG	AP42 Table 3.3-1 and assumes ROG accounts for 91% of TOG
CO	40 CFR 60.4202 for engines < 50 hp, CARB ATCM Final Regulation for engines >= 50 hp
NOx	40 CFR 60.4202 for engines < 50 hp, CARB ATCM Final Regulation for engines >= 50 hp, assumes NOx accounts for 95% of (NMHC+NOx)
SO2	Based on diesel fuel sulfur content 15 ppmw, diesel heat value 19,300 BTU/lb, Brake specific fuel consumption (BSFC) of 7,000 BTU/hp-hr.
PM10	40 CFR 60.4202 for engines < 50 hp, CARB ATCM Final Regulation for engines >= 50 hp
PM2.5	40 CFR 60.4202 for engines < 50 hp, CARB ATCM Final Regulation for engines >= 50 hp, assumes all PM10 is PM2.5
CO2	AP42 Table 3.3-1
CH4	AP42 Table 3.4-1; U.S. Environmental Protection Agency (USEPA). 2020. Emission Factors for Greenhouse Gas Inventories. Available: https://www.epa.gov/sites/default/files/2020-04/documents/ghg-emission-factors-hub.pdf . Accessed: August 18, 2021
N2O	AP42 Table 3.4-1
Pollutant	Emission Factor Source and Assumptions for Natural Gas Emergency Generators
TOG	AP42 Table 3.2-3
ROG	South Coast AQMD Rule 1110.2
CO	South Coast AQMD Rule 1110.2
NOx	South Coast AQMD Rule 1110.2
SO2	AP42 Table 3.2-3, assumes 100% conversion of fuel sulfur to SO2 and sulfur content of 2,000 gr/106 scf
PM10	AP42 Table 3.2-3
PM2.5	AP42 Table 3.2-3
CO2	AP42 Table 3.2-3
CH4	AP42 Table 3.2-3
N2O	No data available